



FINAL ENVIRONMENTAL IMPACT REPORT

Ventura County 2040 General Plan



STATE CLEARINGHOUSE No: 2019011026

Prepared for



County of Ventura
County Government Center Hall of Administration

September 2020



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LIST OF ABBREVIATIONS

| | |
|-------------------|-----------------------------------------------------------------------|
| °C | degrees Celsius |
| AADT | annual average daily traffic volume |
| AASHTO | American Association of State Highway and Transportation Officials |
| AB | Assembly Bill |
| ACLUP | Airport Comprehensive Land Use Plan |
| ADU | accessory dwelling units |
| AGP | Agricultural Preserves |
| AICUZ | Air Installations Compatible Use Zone |
| APCD | Air Pollution Control District |
| AQMP | Air Quality Management Plan |
| AWMP | Agricultural Water Management Plan |
| BACT | Best Available Control Technology |
| BMP | best management practices |
| CAAQS | California ambient air quality standards |
| CAC | County Agricultural Commissioner |
| CAFE | Corporate Average Fuel Economy |
| CAL FIRE | California Department of Forestry and Fire Protection |
| CalEEMod | California Emissions Estimator Model |
| Caltrans | California Department of Transportation |
| CAMUTCD | California Manual on Uniform Traffic Control Devices |
| CAP | Climate Action Plan |
| CARB | California Air Resources Board |
| CASGEM | California Statewide Groundwater Elevation Monitoring Program |
| CAUSE | Coast Alliance United for a Sustainable Economy |
| CBC | California Building Code |
| CCA | Community Choice Aggregation |
| CCR | California Code of Regulations |
| CEC | California Energy Commission |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| CDFW | California Department of Fish and Wildlife |
| CFC | California Fire Code |
| CGS | California Geological Survey |
| CMP | Congestion Management Program |
| CMWD | Casitas Municipal Water District |
| CNDDDB | California Natural Diversity Database |
| CNEL | community noise equivalent level |
| CNPS | California Native Plant Society |
| CO | carbon monoxide |
| CO ₂ e | carbon dioxide equivalent |

| | |
|-------|-----------------------------------------------------------|
| CPA | Clean Power Alliance |
| CPUC | California Public Utilities Commission |
| CURB | City Urban Restriction Boundaries |
| CWPA | Critical Wildlife Passage Areas |
| dB | decibel |
| dBA | A-weighted decibel |
| DFIRM | Digital Flood Insurance Rate Maps |
| DOGGR | Division of Oil, Gas, and Geothermal Resources |
| du/ac | dwelling units per acre |
| DWR | California Department of Water Resources |
| EIR | environmental impact report |
| EMFAC | Emission Factor |
| EO | Executive Order |
| EOP | Emergency Operations Plan |
| EPA | U.S. Environmental Protection Agency |
| ESA | federal Endangered Species Act |
| ESHA | environmentally sensitive habitat areas |
| EV | electric vehicle |
| FAA | Federal Aviation Administration |
| FEMA | Federal Emergency Management Agency |
| FHSV | fire hazard severity zone |
| FHWA | Federal Highway Administration |
| FMMP | Farmland Mapping and Monitoring Program |
| FTA | Federal Transit Administration |
| GHG | greenhouse gas |
| GIS | geographic information system |
| GPU | General Plan Update |
| GSA | groundwater sustainability agency |
| GSP | groundwater sustainability plans |
| GWP | global warming potential |
| HCD | Housing and Community Development |
| HCWC | Habitat Connectivity and Wildlife Corridor |
| HFA | Hazardous Fire Areas |
| HRA | health risk assessment |
| ICLEI | International Council for Local Environmental Initiatives |
| IEPR | Integrated Energy Policy Report |
| IFC | International Fire Code |
| IOU | Investor Owned Utility |
| IPCC | Intergovernmental Panel on Climate Change |
| IRP | Integrated Resource Management Plan |
| ISAG | Initial Study Assessment Guidelines |

| | |
|-------------------|--------------------------------------------------------------------------------------|
| LAFCo | Local Agency Formation Commission |
| lbs | pounds |
| LCA | Land Conservation Act |
| L _{eq} | equivalent noise level |
| L _{max} | maximum instantaneous noise level |
| LOS | level of service |
| LRA | Local Responsibility Area |
| LUST | leaking underground storage tank |
| MACT | maximum achievable control technology |
| MBTA | Migratory Bird Treaty Act |
| MEI | Maximum Exposed Individual |
| MHMP | Multi-Hazard Mitigation Plan |
| MICOP | Mixteco Indigena Community Organizing Project |
| MMPA | Marine Mammal Protection Act |
| MS4 | Municipal Separate Storm Sewer System |
| NAAQS | national ambient air quality standards |
| NBVC | Navy Base Ventura County |
| NCZO | Non-Coastal Zoning Ordinance |
| NEHRP | National Earthquake Hazards Reduction Program |
| NHTSA | National Highway Traffic Safety Administration |
| NIMS | National Incident Management System |
| NOC | notice of completion |
| NOP | notice of preparation |
| NPDES | National Pollutant Discharge Elimination System |
| OES | Office of Emergency Services |
| OPR | Governor's Office of Planning and Research |
| OWTS | Onsite Wastewater Treatment Systems |
| PM ₁₀ | respirable particulate matter with aerodynamic diameter of 10 micrometers or less |
| PM _{2.5} | fine particulate matter with aerodynamic diameter of 2.5 micrometers or less |
| ppm | parts per million |
| PUE | Pesticide Use Enforcement |
| PV | photovoltaic |
| RHNA | Regional Housing Needs Assessment |
| RPS | Renewable Portfolio Standard |
| RRN | Regional Road Network |
| RTP/SCS | Regional Transportation Plan/Sustainable Communities Strategy |
| SAFE Rule | Safer Affordable Fuel-Efficient Vehicles Rule |
| SB | Senate Bill |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast AQMD |

| | |
|----------|----------------------------------------------------------|
| SCCAB | South Central Coast Air Basin |
| SCE | Southern California Edison |
| SEMS | Standardized Emergency Management System |
| SGMA | Sustainable Groundwater Management Act |
| SOAR | Save Open Space & Agricultural Resource |
| SoCalGas | Southern California Gas Company |
| SOI | sphere of influence |
| SOP | Standard Operating Procedure |
| SOV | single-occupancy vehicle |
| SQMP | Stormwater Quality Management Program |
| SR | State Route |
| SRA | State Responsibility Area |
| STAA | Surface Transportation Assistance Act |
| SWP | State Water Project |
| SWRCB | State Water Resource Control Board |
| | |
| TAC | toxic air contaminant |
| TCE | trichloroethylene |
| TCM | Transportation Control Measure |
| TERPS | Terminal Instrument Procedure |
| TP | Timberland Preserve |
| TPZ | Timberland Production Zone |
| | |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| UWMP | Urban Water Management Plans |
| VCAPCD | Ventura County Air Pollution Control District |
| VC-CAPS | Ventura County Coalition Advocating for Pesticide Safety |
| VCFD | Ventura County Fire Department |
| VCREA | Ventura County Regional Energy Alliance |
| VCTC | Ventura County Transportation Commission |
| VMT | vehicle miles travelled |
| | |
| WDR | Waste Discharge Requirement |
| WPD | Watershed Protection District |
| WUI | wildland urban interface |
| | |
| ZNE | zero net energy |

1 INTRODUCTION

This final environmental impact report (final EIR) has been prepared by the County of Ventura, Resource Management Agency, Planning Division (County), as lead agency, in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (California Code of Regulations [CCR] Section 15132). This final EIR contains responses to comments received on the draft environmental impact report (draft EIR) for the Ventura County 2040 General Plan Update (hereinafter referred to as the “2040 General Plan”). The final EIR consists of the draft EIR and this document, which includes comments on the draft EIR, responses to those comments, and revisions to the draft EIR.

1.1 PURPOSE AND INTENDED USES OF THIS FINAL EIR

CEQA requires a lead agency that has prepared a draft EIR to consult with and obtain comments from responsible and trustee agencies that have jurisdiction by law with respect to the project, and to provide the public with an opportunity to comment on the draft EIR. The final EIR is the mechanism for responding to these comments. This final EIR has been prepared to respond to comments received on the draft EIR, which are reproduced in this document; and to present corrections, revisions, and other clarifications and amplifications to the draft EIR, including project updates, made in response to these comments and as a result of the applicant’s ongoing planning and design efforts. The final EIR will be used to support the County’s decision regarding whether to approve the 2040 General Plan.

This final EIR will also be used by CEQA responsible and trustee agencies to ensure that they have met their requirements under CEQA before deciding whether to approve or permit project elements over which they have jurisdiction. It may also be used by other State, regional, and local agencies that may have an interest in resources that could be affected by the project or that have jurisdiction over portions of the project.

Responsible, trustee, and interested agencies may include:

- ▶ California Department of Transportation,
- ▶ California Department of Conservation,
- ▶ Local Agency Formation Commission of Ventura County,
- ▶ California Department of Fish and Wildlife,
- ▶ California Department of Parks and Recreation, and
- ▶ California State Lands Commission.

1.2 PROJECT LOCATION

Ventura County is one of the six counties that collectively form the Central Coast region of California. It was created on January 1, 1873, when it separated from Santa Barbara County. Ventura County covers 1.2 million acres bordered by the Pacific Ocean to the southwest, Los Angeles County to the southeast and east, Santa Barbara County to the west, and Kern County to the north. The Los Padres National Forest accounts for approximately 574,000 acres, or 47 percent of the county’s total land area. This includes privately owned inholdings

surrounded by Los Padres National Forest which are not a part of the national forest. Outside of the Los Padres National Forest, there are approximately 528,000 acres of land in the unincorporated area (43 percent) and 121,000 acres in the county's 10 incorporated cities (10 percent). In addition to the mainland part of the county, two of the eight Channel Islands off the coast (San Nicolas Island and Anacapa Island) are also part of Ventura County. Anacapa Island is approximately 700 acres and is located within the Channel Islands National Park. San Nicolas Island encompasses approximately 14,000 acres and is located 65 miles south of Naval Base Ventura County Point Mugu. Managed by the US Navy, San Nicolas Island serves as a launch platform and observation platform for short- and medium-range missile testing. Anacapa Island covers approximately 3,200 acres and is located 14 miles from the coast of Ventura County; it is one of the most visited islands of Channel Islands National Park because of its proximity to the mainland.¹

The County of Ventura has land use regulatory authority over most unincorporated land in the county, but lacks land use authority within the incorporated cities in the county: Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, Santa Paula, Simi Valley, Thousand Oaks, and Ventura. The County also does not have land use authority over land in the unincorporated area that is owned or managed by the State or federal government (e.g., State parks, State universities, national parks, U.S. Bureau of Land Management areas, and tribal lands), except for portions of State parks and other State land located in the coastal zone. Under State law, the County has land use authority over land owned or managed by special districts in the unincorporated area (e.g., cemetery districts, water districts), subject to limited exceptions.

1.3 PROJECT OBJECTIVES

For this EIR, the project objectives are defined as being expressed by the Guiding Principles contained in Section 1.2 of the 2040 General Plan. The project objectives are defined as follows:

- ▶ **Land Use and Community Character:** Direct urban growth away from agricultural, rural, and open space lands, in favor of locating it in cities and unincorporated communities where public facilities, services, and infrastructure are available or can be provided.
- ▶ **Housing:** Support the development of affordable and equitable housing opportunities by preserving and enhancing the existing housing supply and supporting diverse new housing types, consistent with the Guidelines for Orderly Development.
- ▶ **Circulation, Transportation, and Mobility:** Support the development of a balanced, efficient, and coordinated multimodal transportation network that meets the mobility and accessibility needs of all residents, businesses, and visitors.
- ▶ **Public Facilities, Services, and Infrastructure:** Invest in facilities, infrastructure, and services, including renewable energy, to promote efficiency and economic vitality, ensure public safety, and improve quality of life.
- ▶ **Conservation and Open Space:** Conserve and manage the County's open spaces and natural resources, including soils, water, air quality, minerals, biological resources, scenic resources, as well as historic and cultural resources.

¹ Note: the 2040 General Plan and associated mapping focus on the mainland areas of the county. This EIR follows the same convention. San Nicolas is designated State or Federal Facility. Anacapa Island is designated Open Space.

- ▶ **Hazards and Safety:** Minimize health and safety impacts to residents, businesses and visitors from human-caused hazards such as hazardous materials, noise, air, sea level rise, and water pollution, as well as managing lands to reduce the impacts of natural hazards such as flooding, wildland fires, and geologic events.
- ▶ **Agriculture:** Promote the economic vitality and environmental sustainability of Ventura County's agricultural economy by conserving soils/land while supporting a diverse and globally competitive agricultural industry that depends on the availability of water, land, and farmworker housing.
- ▶ **Water Resources:** Develop and manage water resources in a manner that addresses current demand without compromising the ability to meet future demand, while balancing the needs of urban and agricultural uses, and healthy ecosystems.
- ▶ **Economic Vitality:** Foster economic and job growth that is responsive to the evolving needs and opportunities of the County's economy, and preserves land use compatibility with Naval Base Ventura County and the Port of Hueneme, while enhancing quality of life and promoting environmental sustainability.
- ▶ **Climate Change and Resilience:** Reduce greenhouse gas emissions to achieve all adopted targets, proactively anticipate and mitigate the impacts of climate change, promote employment opportunities in renewable energy and reducing greenhouse gases, and increase resilience to the effects of climate change.
- ▶ **Healthy Communities:** Promote economic, social, and physical health and wellness by investing in infrastructure that promotes physical activity, access to healthy foods, supporting the arts and integrating Health in All Policies into the built environment.
- ▶ **Environmental Justice:** Commit to the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies, protect disadvantaged communities from a disproportionate burden posed by toxic exposure and risk, and continue to promote civil engagement in the public decision-making process.

1.4 SUMMARY DESCRIPTION OF THE PROJECT

1.4.1 Overview of the 2040 General Plan

The 2040 General Plan is a comprehensive effort to update the existing General Plan and respond to current local and regional conditions, as well as changes in State law that may not have been in place when the existing General Plan was last updated in 2005. It clarifies and articulates the County's intentions with respect to the rights and expectations of the various communities, including residents, property owners, and businesses. Through the 2040 General Plan, the County informs these groups of its goals, policies, and standards, thereby communicating expectations of the public and private sectors for meeting community objectives. In addition, the general plan includes Area Plans that specifically address growth and resource concerns within nine of the county's identified communities.

The 2040 General Plan is organized to satisfy the State’s required general plan elements (or chapters). It addresses the State’s mandatory elements (i.e., land use, circulation, housing, conservation, open space, noise, and safety), plus the new requirements for air quality and environmental justice, and three new optional elements: water, agriculture, and economic development. Each of the general plan elements and Area Plans contain goals, policies, and implementation programs, which constitute the County of Ventura’s policies for land use, development and environmental quality. These terms are defined as follows:

- ▶ Goal— A statement that describes in general terms a desired future condition or end state. Goals describe ideal future conditions for a topic and tend to be very general and broad.
- ▶ Policy— A clear and unambiguous statement that guides a specific course of action for decision-makers to achieve a desired goal.
- ▶ Implementation Program—An action, procedure, program, or technique that carries out general plan policy.

The current, comprehensive update process was initiated in 2015. To reach a wide variety of county residents and stakeholders, Ventura County Resource Management Agency, Planning Division staff conducted extensive community outreach to secure initial public, focus group, and advisory body input on the development of the draft 2040 General Plan. The County gathered community input through the following methods:

- ▶ Public Opinion Survey;
- ▶ Workshops, Open Houses, and Informational Sessions;
- ▶ Public Presentations;
- ▶ Project Website – www.VC2040.org;
- ▶ Technical Advisory Committee;
- ▶ Focus Groups;
- ▶ Agricultural Policy Advisory Committee;
- ▶ Municipal Advisory Councils and Piru Neighborhood Council; and
- ▶ Planning Commission and Board of Supervisors Meetings, Working Sessions, and Hearings.

During 2018, the public and the County’s Planning Commission and Board of Supervisors engaged in an alternatives process designed to guide development of the 2040 General Plan. The purpose of the alternatives process was to consider future land use and policy options and help the Planning Commission and Board of Supervisors select a Preferred Alternative that provided the framework for preparing the 2040 General Plan. The Alternatives Report was presented to the Board of Supervisors and Planning Commission during joint work sessions in July and November 2018 (Ventura County 2018). The Alternatives Report established a framework for the 2040 General Plan by providing direction on the Vision Statement and Guiding Principles; Proposed General Plan Organization; Preferred Land Use Alternative; and Policy Choices.

The preliminary public review draft of the 2040 General Plan was released for public review on May 9, 2019. Following public input and work sessions with the Planning Commission and Board of Supervisors, a public review draft 2040 General Plan was released for public review in January 2020.

1.4.2 Relationship to Other Plans and Regulations

A general plan is distinct from a zoning ordinance and other land use planning documents. Although all these documents regulate how land may be used and developed, they do so in different ways. A general plan has a long-term outlook that identifies the types of development that are allowed, the spatial relationships among land uses, and the general pattern of future development. A zoning ordinance implements a general plan by regulating development through specific standards, such as lot size, building setback, setting allowable uses, or through infrastructure improvements and financing. Development must not only meet the specific requirements of the zoning ordinance but also the broader policies set forth in the general plan.

There are also nine Area Plans that are incorporated and made part of the 2040 General Plan. An Area Plan specifies the distribution, location, types, and intensity of land uses, and provides specific policies concerning development in a distinct geographical area. The goals, policies, and programs of an Area Plan are designed to supplement, not duplicate, the General Plan.

LAND USE PLANNING CONTEXT AND GROWTH MANAGEMENT

One of Ventura County's distinguishing characteristics is its open space and scenic character. The County is dedicated to directing urban development to cities and existing unincorporated communities to preserve its working and rural landscapes, agricultural lands, scenic vistas, natural resources, and recreational opportunities. The County has a direct role in maintaining agricultural, rural, and open space areas and shaping the character of urban development. At the same time, the County seeks to support and encourage the cities in their land use planning efforts to ensure that a quality living environment is provided for all existing and future county residents.

Ventura County is unique in California because of the successful countywide land use planning efforts that have preserved the county's open space and scenic character, including the Guidelines for Orderly Development, greenbelt agreements, and the Save Open Space & Agricultural Resources (SOAR) initiative measure.

1.4.3 Structure and Content of the General Plan

The 2040 General Plan sets forth the goals and policies based on the Vision Statement and Guiding Principles that will guide future land use and resource decisions within the unincorporated areas of the county and identifies the implementation programs required to carry out the goals and policies of the 2040 General Plan. The 2040 General Plan also includes land use designations and a Land Use Diagram that specifies the allowable uses of land (e.g., residential, commercial) throughout the unincorporated area.

The 2040 General Plan addresses topics and issues pursuant to State requirements adopted since the existing general plan was approved in 2005. These include environmental justice, transportation issues such as assessing vehicle miles traveled and analyzing transportation systems more holistically (e.g., "Complete Streets"), and wildfire hazards. It is designed to

maintain consistency with the Guidelines for Orderly Development, greenbelt agreements, and SOAR measures for Ventura County's unincorporated areas and ten incorporated cities. The 2040 General Plan also includes a Climate Action Plan which, among other things, will include a vulnerability analysis and describe how the County plans to reduce greenhouse gas (GHG) emissions and adapt to a changing climate.

As part of the General Plan update process, the County assessed the goals, policies, and programs in the existing General Plan and the County Area Plans. Seven of the Area Plans (El Rio/Del Norte, Lake Sherwood/Hidden Valley, North Ventura Avenue, Oak Park, Ojai Valley, Piru, and Thousand Oaks) would be refined as part of the 2040 General Plan. These seven area plans were reviewed and assessed to compare the Area Plan goals, policies, and programs with 2040 General Plan goals, policies, and programs to ensure internal consistency. The proposed refinements typically take the form of applying a common writing style and order of presentation to each Area Plan while maintaining the original intent. A few policies are proposed for removal from individual Area Plans and incorporation into one of the 2040 General Plan elements. This change would maintain the policy and broaden its coverage from a single Area Plan to the entire unincorporated county. All Area Plan changes proposed in the 2040 General Plan are presented in a legislative format that tracks the changes made.

The remaining two Area Plans (Coastal and Saticoy) were not updated as part of the 2040 General Plan process.

GENERAL PLAN ELEMENTS

The 2040 General Plan elements are organized as follows: Land Use and Community Character Element; Housing Element; Circulation, Transportation, and Mobility Element; Public Facilities, Services, and Infrastructure Element; Conservation and Open Space Element; Hazards and Safety Element; Agriculture Element; Water Resources Element; and Economic Vitality Element. Each element contains goals and policies that the County will use to guide future land use, development, resource management, and environmental protection decisions. The 2040 General Plan is intended to provide a more concise and clear policy statement for the County, compared to the existing General Plan, by reducing redundant policies (similar policies that are presented in several elements and/or area plans), and by removing items that are simply restatements of requirements specified in State or federal regulations.

LAND USE DIAGRAM

The purpose of the 2040 General Plan Land Use Diagram is to guide the general distribution, location, and extent of the various land use designations throughout the county. The land use designations established in the 2040 General Plan are listed in Tables 1-1 and 1-2.

The existing General Plan contains a simplified set of six land use designations and one overlay land use designation, which describe the purpose of the designation and allowed uses. While a few land use designations prescribe density, intensity, and lot size, the key designations of Existing Community and Urban do not. The existing General Plan land use designations are broad categories that lack clear details to distinguish between separate land uses, such as residential, commercial, and industrial.

To address this, the 2040 General Plan would establish 15 land use designations that provide more detailed information on the types of land uses (e.g., commercial, industrial, residential) that would be allowable within areas currently designated as Existing Community and Urban land use designations. The 2040 General Plan land use designations would be consistent with land uses and densities/intensities allowed under the current (2018) zoning designations for each affected parcel. The proposed 2040 General Plan land use designations replace the Existing Community and Urban land use designations of the existing General Plan with a new set of designations that clearly distinguish the land uses allowed and set forth maximum development density and intensity standards.

Where the existing General Plan contained minimum lot size requirements, these are maintained in the 2040 General Plan. Proposed new land use designations that do not have a comparable minimum lot size in the existing General Plan would incorporate the smallest minimum lot size of the compatible zoning designation.

As part of the 2040 General Plan, several key designations are maintained as presented in the existing General Plan. All lands in the existing General Plan with a land use designation of Agricultural, Open Space, or Rural located outside of Existing Community and Urban designated areas are maintained unchanged. This ensures the 2040 General Plan remains consistent with the SOAR initiative. Relative to the Guidelines for Orderly Development, the boundaries of the current Existing Community and Urban designations were protected as new area designations in the 2040 General Plan. Also maintained are the lands designated as State and Federal Facility, which is applied to parcels owned by the State or federal government and are outside of the County's land use jurisdiction. The only change to this designation is its name, which in the 2040 General Plan is under the term "State, Federal, and Other Public Lands."

Two changes are also proposed for lands within or adjacent to the incorporated cities in the county. As the County does not have land use authority over lands within the cities, these areas are noted as "City" on the 2040 General Plan Land Use Diagram and not given a land use designation. The final land use designation change is the proposed removal of the Urban Reserve Overlay. This overlay is replaced by a policy that references the use of adopted spheres of influence to provide the same geographic boundary.

Table 1-1 provides the land use designations that would be established and used by the 2040 General Plan.

Table 1-1 Land Use Designation General Development Standards

| Acronym | Land Use Designation | Maximum Density / Intensity | Minimum Lot Size | Maximum Lot Coverage ¹ |
|-----------------------------------------------------------|-------------------------------------------------|-------------------------------|-------------------------------------------------------------------|-----------------------------------|
| Rural, Agricultural, and Open Space Designations | | | | |
| RUR | Rural ² | 1 du/2 ac | 2 acres, or zone suffix equal to or more restrictive than 2 acres | 25% |
| ECU-R ³ | ECU-Rural | 1 du/2 ac | 2 acres | 25% |
| AG | Agricultural ² | 1 du/40 ac | 40 acres | 5% |
| ECU-A ³ | ECU-Agricultural | 1 du/40 ac | 40 acres | 5% |
| OS | Open Space ² | 1 du/parcel | 10 acres, or 20 acres if contiguous w/Agricultural | 5% |
| ECU-OS ³ | ECU-Open Space | 1 du/parcel | 10 acres, or 20 acres if contiguous w/Agricultural | 5% |
| Residential Designations | | | | |
| VLDR | Very Low Density Residential | 4 du/ac | 10,000 SF | n/a |
| LDR | Low-Density Residential | 6 du/ac | 6,000 SF | n/a |
| MDR | Medium-Density Residential | 14 du/ac | 3,000 SF | n/a |
| RHD | Residential High-Density | 20 du/ac | No minimum | n/a |
| RPD | Residential Planned Development | 20 du/ac | No minimum | n/a |
| CRPD | Coastal Residential Planned Development | 36 du/ac | No minimum | n/a |
| RB | Residential Beach | 36 du/ac | 1,500 SF | n/a |
| Mixed Use, Commercial, and Industrial Designations | | | | |
| MU | Mixed Use | 20 du/ac; 60% lot coverage | No minimum | 60% |
| C | Commercial | 60% lot coverage | No minimum | 60% |
| CPD | Commercial Planned Development | 60% lot coverage | No minimum | 60% |
| I | Industrial | 50% lot coverage | 10,000 SF | 50% |
| Other Designations | | | | |
| PR | Parks & Recreation | n/a | None | 5% |
| P | State, Federal, Other Public Lands ² | n/a | None | n/a |

Notes: ac = acre; du = dwelling unit; n/a = not applicable; SF = square foot.

- ¹ Maximum lot coverage is per applicable County zoning classification.
- ² Existing General Plan land use designations that would be retained.
- ³ The acronym "ECU-" preceding a designation name refers to land use designations that apply only within the boundaries of an Existing Community or Urban area designation (boundary) as defined in 2040 General Plan Policies LU-1.2 and LU-2.1.

The approximate acreage and percent of total acreage in the unincorporated portions of the county for each land use designation is also provided in Table 1-2.

Table 1-2 Land Use Designation Descriptions and Acreage in the Plan Area

| Land Use Designation | Description | Acreage | Percent of County Total |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------|
| Rural | Identifies areas suitable for low-density and low-intensity land uses such as residential estates and other rural uses which are maintained in conjunction with agricultural and horticultural uses or in conjunction with the keeping of farm animals for recreational purposes. The areas considered for inclusion in the Rural designation are existing clusters of rural development and areas deemed appropriate for future rural residential development. | 8,764 | <1% |
| ECU-Rural | Provides a physical transition between the outer edges of an Existing Community or Urban Area and nearby agricultural and open space areas and uses. Typical building types include large-lot, single-family homes in a rural setting. | 1,114 | <1% |
| Agricultural | Applies to irrigated lands suitable for the cultivation of crops and the raising of livestock. | 91,485 | 9% |
| ECU-Agricultural | Applies to irrigated lands suitable for the cultivation of crops and the raising of livestock within the boundaries of an Existing Community designated area. | 102 | <1% |
| Open Space | Applies to any parcel or area of land or water which is largely unimproved and devoted to an open-space use, as defined under Section 65560 of the Government Code. | 917,716 | 88% |
| ECU-Open Space | Provides for areas with significant natural resources that should remain in open space, used for recreation, or preserved and used for resource production (e.g., mining) and are located within the boundaries of an Existing Community designated area. | 233 | <1% |
| Very Low Density Residential | Provides a physical transition between the outer edges of an Existing Community or Urban Area and nearby agricultural and open space areas and uses. Typical building types include large-lot, single-family homes in a rural setting. | 7,572 | <1% |
| Low-Density Residential | Provides for a variety of single-family homes and neighborhoods. Typical building types include small-lot, single-family homes, and other similar housing types, such as second units. | 1,050 | <1% |
| Medium-Density Residential | Provides a transition from lower density, single-family areas and more intensely developed residential and commercial areas; generally, applies to residential neighborhoods and central areas within Existing Communities and Urban Areas. Development at the higher end of the density allowed should occur along major transportation routes or adjacent to commercial centers. Typical building types include one- to three-story attached single-family dwellings and lower density multifamily developments. | 25 | <1% |
| Residential High-Density | Provides for residential development in more intensely developed residential and commercial areas. Development at the higher end of the density allowed should occur along major transportation routes and within major commercial centers. Generally, applies to central areas within Existing Communities and Urban Areas. Typical building types include one- to three-story multifamily developments. | 13 | <1% |
| Residential Planned Development | Provides areas for residential communities which would be developed using modern land planning and unified design techniques that can be adjusted to better fit the unique needs of the project site. | 1,732 | <1% |
| Coastal Residential Planned Development | Provides areas for residential communities which would be developed using innovative site planning techniques. Generally, applies to areas appropriate for modern residential development within the boundaries of an Existing Community designated area in the coastal zone. | 23 | <1% |
| Residential Beach | Provides for small-lot, beach-oriented residential communities. Generally, applies to areas appropriate for high-density residential development within the boundaries of an Existing Community designated area in the coastal zone. | 185 | <1% |
| Mixed Use | Provides for the development of activity centers that contain a mix of compatible and integrated commercial, office, residential, civic, and/or recreational uses. Developments should be located on an arterial or higher roadway classification and include appropriate pedestrian and bicycle facilities. Typical building types include one- to three-story horizontal or vertical mixed-use structures. | 20 | <1% |

| Land Use Designation | Description | Acreage | Percent of County Total |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------|
| Commercial | Provides for a mix of retail and service uses that are typically needed by residents in rural communities and surrounding agricultural operations. Developments may include a mix of uses and should be located on a County-defined Minor Collector or higher classification roadway and include pedestrian and bicycle facilities. Typical building types include one- to two-story commercial structures. | 161 | <1% |
| Commercial Planned Development | Provides areas for vibrant commercial centers which would be developed utilizing modern land planning and unified design techniques that can be adjusted to better fit the unique needs of the project site. Areas with this designation provide a flexible regulatory procedure in order to encourage the development of coordinated, innovative, and efficient commercial sites and to provide areas for a wide range of commercial retail and business uses, including stores, shops, and offices supplying commodities or performing services for the surrounding community. | 158 | <1% |
| Industrial | Provides for a range of industrial employment-generating uses, including production, assembly, warehousing, and distribution, that are conducted within enclosed buildings or in appropriately sited and screened outdoor work spaces that are designed for compatibility with surrounding land uses. Limited to areas served by, or planned to be served by, public water, wastewater, and drainage systems. Developments must be located on a County-defined Minor Arterial or higher classification roadway. | 1,408 | <1% |
| Parks & Recreation | Provides for parks and recreation facilities and associated recreation uses. Typically, these areas are characterized by a high degree of open space, and a limited number of buildings. Recreational facilities frequently include sports fields, playground equipment, picnic areas, sitting areas, concession businesses, open turf and natural areas, trails, and golf courses. Connectivity to surrounding areas via pedestrian and bicycle facilities is desired. | 0 ¹ | 0% |
| State, Federal, Other Public Lands | This designation applies to State- and federally-owned parks, forests, rangelands, coastal resources, and/or recreation areas. For State land within the coastal zone, the County has land use authority except for land under the California Coastal Commission's original jurisdiction (i.e., beaches and tidelands). For all other areas within this designation the County has no land use authority. Areas so designated include land under federal or State ownership on which governmental facilities are located. Principal uses of these areas include: continued provision of public recreational facilities and access; multi-use management where applicable; support for rangeland activities, and interconnection or coordination of State, federal, and local facilities and programs when possible. | 8,085 | <1% |
| Total | | 1,039,847 | 100% |

¹ There is no land currently in the Parks & Recreation designation. This is a new designation that can be applied to parcels within Existing Community, Area Plans, and Urban Centers within Areas of Interest that provide for parks and recreation facilities and associated recreation uses.

As shown in Table 1-2, the land use diagram of the 2040 General Plan would concentrate future development of relatively higher intensity residential, commercial, mixed use, and industrial land uses within the Existing Community area designation (boundary) and the Urban area designation (boundary). The Existing Community area designation includes existing land uses that have been developed with urban building intensities and urban land uses. The Urban area designation refers to areas with commercial and industrial uses and residential uses where the building intensity is greater than one principal dwelling unit per two acres. These areas are generally located adjacent to the boundaries of incorporated cities or along highway corridors such as SR 33, SR 118, SR 126, and Highway 101.

Under the 2040 General Plan relatively higher intensity residential (Very Low Density, Low-Density, Medium-Density, Residential Planned Development, Coastal Planned Development, Residential Beach), commercial (Commercial and Commercial Planned Development), mixed use, and industrial land use designations would apply to approximately 1.2 percent of land in the unincorporated county. The types of future development that could occur in these land use designations include but are not limited to small- and large-lot detached single-family homes,

one- to three-story attached single-family dwellings and lower density multifamily developments, mixes of commercial, office, residential, civic, and/or recreational uses, one- to two-story structures for retail and commercial services, and industrial employment-generating uses, such as production, assembly, warehousing, and distribution.

The Rural land use designation would remain unchanged from the existing General Plan and allow for low-density and low-intensity land uses such as residential estates and other rural uses which are maintained in conjunction with agricultural and horticultural uses or in conjunction with the keeping of farm animals for recreational purposes, such as composting operations, greenhouses, principal and accessory structures related to agriculture, and oil and gas wells. The areas considered for inclusion in the Rural designation are existing clusters of rural development and areas deemed appropriate for future rural residential development up to a maximum density of one dwelling unit per 2 acres. The Rural land use designation would apply to approximately 0.9 percent of land in the unincorporated county.

Approximately 97.1 percent of the unincorporated county is designated as either Open Space or Agriculture. The Open Space land use designation would be unchanged from the existing General Plan (covering 88 percent of the unincorporated county), allowing a minimum parcel size of 10 acres and one dwelling unit per parcel (see Table 1-1). The Open Space land use designation would also allow for development of other uses such as composting operations, greenhouses, correctional institutions, fire stations, and oil and gas wells.

An additional nine percent of the plan area is, and would remain, designated as Agriculture. The Agriculture land use designation would also remain unchanged from the existing General Plan, allowing for development of one dwelling unit per parcel and a minimum parcel size of 40 acres. This designation is applied to irrigated lands suitable for the cultivation of crops and the raising of livestock and would also allow for other uses such as greenhouses, principal and accessory structures related to agriculture, and composting operations.

The remaining approximately 0.8 percent of land in the unincorporated county would be designated as State, Federal, Other Public Lands, which applies to land under federal or State ownership on which governmental facilities are located. Proposed policies of the 2040 General Plan addressing flaring and trucking associated with new discretionary oil and gas wells could result in the construction and operation of new pipelines for the conveyance of oil, gas, or produced water.

GROWTH PROJECTIONS

Growth projections employed in the preparation of the 2040 General Plan were estimated for 2020, 2030, and 2040 using county-specific demographic projections prepared by Southern California Association of Governments (SCAG) for the 2020 Regional Transportation Plan and Sustainable Communities Strategy (SCAG 2017). As indicated in the SCAG population growth forecasts presented in Table 1-3, below, from 2015 to 2040 the growth in population and households (i.e., occupied housing units) is anticipated to be approximately four percent and employment growth is expected to be approximately nine percent.

Table 1-3 Growth Forecast for Unincorporated Ventura County, 2015–2040

| Demographic | 2015 | 2020 | | 2030 | | 2040 | |
|-------------|--------|--------|----------------------------|---------|----------------------------|---------|----------------------------|
| | Number | Number | Percent Increase from 2015 | Number | Percent Increase from 2015 | Number | Percent Increase from 2015 |
| Population | 97,733 | 99,755 | 2.1 | 100,918 | 3.3 | 101,832 | 4.2 |
| Employment | 32,889 | 32,988 | 0.3 | 34,556 | 5.1 | 35,875 | 9.1 |
| Households | 32,191 | 32,446 | 0.08 | 32,959 | 2.4 | 33,472 | 4.0 |

Notes: Employment and housing growth rates for 2040 interpolated from reported years 2035 and 2045

Source: Calculated by Ascent Environmental using data provided by the SCAG (2017)

Historically, most development has occurred within areas designated as Existing Community and Urban in the existing General Plan land use diagram. For example, between 2006 and 2018, an estimated 44 percent of new residential development occurred within areas designated as Existing Community or Urban. These are areas where higher-intensity residential development, a mixture of commercial and industrial uses, and additional infrastructure and services are most readily available to accommodate such growth. The remainder of the residential development during this period occurred in areas designated Rural (9 percent), Agricultural (23 percent), and Open Space (24 percent). Lower development trends in areas designated Rural, Agriculture, and Open Space are presumed to be based on numerous factors that vary from site to site, but include larger minimum lot sizes; lot coverage restrictions; limited access to water, utilities and infrastructure; fire code issues such as lack of secondary access; or a combination of these and other factors which can effectively prohibit or significantly increase the cost of new development in these areas.

Based on the similarities between the land use diagrams of the existing General Plan and 2040 General Plan and other factors influencing development, the County anticipates that allocation of future residential development would substantially follow historical trends with implementation of the 2040 General Plan. For example, to the extent historical residential development trends continue into the future, approximately 564 of the 1,281 additional households forecast in the unincorporated county between 2015 and 2040 (see Table 1-3) would be developed within areas of the county designated for residential, industrial, and mixed land uses. These areas account for approximately 1 percent of the total acreage of the unincorporated county area. In this example the remainder of the forecast residential development would be spread throughout the approximately 98 percent of the County's unincorporated areas in agriculture, open space, and rural land use designations (see Table 1-2).

1.5 MAJOR CONCLUSIONS OF THE ENVIRONMENTAL ANALYSIS

Chapter 4, "Environmental Impact Analysis," of the draft EIR addresses the environmental impacts of implementation of the 2040 General Plan. Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant, and potentially significant, adverse impacts of the project (see Chapter 6, "Alternatives," of the draft EIR). If an environmental issue area analyzed in the draft EIR is not listed below, it is because no significant impacts were identified for that issue area.

1.5.1 Significant and Unavoidable Impacts of the 2040 General Plan

Significant and unavoidable environmental impacts resulting from the 2040 General Plan were identified, as follows.

Agriculture and Forestry Resources:

- ▶ Impact 4.2-1: Loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance

Air Quality:

- ▶ Impact 4.3-2: Cause Construction-Generated Criteria Air Pollutant or Precursor Emissions to Exceed VCAPCD-Recommended Thresholds
- ▶ Impact 4.3-3: Result in a Net Increase in Long-Term Operational Criteria Air Pollutant and Precursor Emissions That Exceed VCAPCD-Recommended Thresholds

Biological Resources:

- ▶ Impact 4.4-1: Disturb or Result in Loss of Special-Status Species and Habitat
- ▶ Impact 4.4-2: Disturb or Result in Loss of Riparian Habitat, Sensitive Plant Communities, ESHA, Coastal Beaches, Sand Dunes, and Other Sensitive Natural Communities
- ▶ Impact 4.4-3: Disturb or Result in Loss of Wetlands and other Waters
- ▶ Impact 4.4-4: Interfere with Resident or Migratory Wildlife Corridors or Native Wildlife Nursery Sites

Cultural, Tribal Cultural, and Paleontological Resources:

- ▶ Impact 4.5-1: Substantial Adverse Change in the Significance of an Archaeological Resource Pursuant to PRC 5024.1 and CEQA
- ▶ Impact 4.5-2: Substantial Adverse Change in the Significance of a Historic Resource Pursuant to PRC 5024.1 and CEQA
- ▶ Impact 4.5-3: Substantial Adverse Change in the Significance of a Tribal Cultural Resources
- ▶ Impact 4.5-4: Result in Grading and Excavation of Fossiliferous Rock or Increase Access Opportunities and Unauthorized Collection of Fossil Materials from Valuable Sites

Greenhouse Gas Emissions:

- ▶ Impact 4.8-1: Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment.
- ▶ Impact 4.8-2: Conflict with an Applicable Plan, Policy, or Regulation for the Purpose of Reducing the Emissions of GHGs

Hazards, Hazardous Materials, and Wildfire:

- ▶ Impact 4.9-6: Expose People to Risk of Wildfire by Locating Development in a High Fire Hazard Area/Fire Hazard Severity Zone or Substantially Impairing an Adopted Emergency Response Plan or Evacuation Plan or Exacerbate Wildfire Risk

Mineral and Petroleum Resources

- ▶ Impact 4.12-3: Result in Development on or Adjacent to Existing Petroleum Resources Extraction Sites or Areas Where Petroleum Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Access to the Resources

Noise and Vibration

- ▶ Impact 4.13-3: Expose Existing Sensitive Receptors to Traffic-Noise Increases
- ▶ Impact 4.13-6: Expose Sensitive Receptors to Construction Vibration Levels That Exceed Applicable Standards

Public Services and Recreation:

- ▶ Impact 4.15-2: Require Expansion or Construction of New Facilities to Support Law Enforcement and Emergency Services
- ▶ Impact 4.15-3: Require Expansion or Construction of New Fire Protection Facilities and Services as a Result of Excessive Response Times, Project Magnitude, or Distance from Existing Facilities
- ▶ Impact 4.15-4: Require Expansion or Construction of New Public Libraries or Other Facilities to Meet New Demand or Address Overcrowding and Accessibility
- ▶ Impact 4.15-5: Require Expansion or Construction of New Parks and Recreation Facilities and Services or Cause Substantial Physical Deterioration of Parks and Recreation Facilities Because of Overuse

Transportation and Traffic:

- ▶ Impact 4.16-1: Exceed VMT Thresholds
- ▶ Impact 4.16-2: Transportation Infrastructure Needed to Accommodate Growth Would Result in Adverse Effects Related to County Road Standards and Safety
- ▶ Impact 4.16-3: Result in Inadequate Emergency Access

Utilities:

- ▶ Impact 4.17-2: Increase Demand on a Utility That Results in the Relocation or Construction of New, or Expansion of Existing Water, Wastewater, Electric Power, Natural Gas, or Telecommunications Infrastructure, Resulting in the Potential for Significant Environmental Impacts
- ▶ Impact 4.17-4: Result in Development That Would Adversely Affect Water Supply Quantities during Normal, Single-Dry, and Multiple-Dry Years

1.5.2 Impacts That Can Be Reduced to a Less-than-Significant Level Through Mitigation Measures

Impacts resulting from the 2040 General Plan that can be reduced to a less-than-significant level through mitigation measures were identified as follows.

Aesthetics, Scenic Resources, and Light Pollution:

- ▶ Impact 4.1-3: Create a New Source of Disability Glare or Discomfort Glare for Motorists Traveling along Any Road of the County Regional Road Network

Air Quality:

- ▶ Impact 4.3-5: Expose Sensitive Receptors to Substantial Increases in Toxic Air Contaminant Emissions

Mineral and Petroleum Resources:

- ▶ Impact 4.12-4: Result in the Loss of Availability of a Known Petroleum Resource That Would Be of Value to the Region and the Residents of the State

Public Services and Recreation:

- ▶ Impact 4.15-1: Increase Demand for Law Enforcement and Emergency Services as a Result of Inadequate Security Measures

Transportation and Traffic:

- ▶ Impact 4.16-5: Substantially Interfere With Railroad Facility Integrity and/or Operations

1.6 CEQA PUBLIC REVIEW PROCESS

1.6.1 Public Review of the Draft EIR

The County filed a notice of completion (NOC) with the Governor's Office of Planning and Research to begin the 45-day public review period (Public Resources Code [PRC] Section 21161), which began on January 13, 2020 and ended on February 27, 2020. Concurrent with the NOC, the draft EIR was distributed to responsible and trustee agencies, other affected agencies, surrounding counties, cities within the county, and interested parties, as well as to all parties requesting a copy of the draft EIR, in accordance with PRC Section 21092(b)(3). Additionally, the draft EIR was made available on the County's 2040 General Plan Update website (<https://vc2040.org/>); the Planning Division website (<http://vcrma.org/divisions/planning>); the County of Ventura, Resource Management Agency, Planning Division Public Counter; and twelve local libraries. A notice of availability (NOA) of the draft EIR was published on January 9, 2020 in the *Vida Newspaper* and on January 10, 2020 in the *Mountain Enterprise*, *VC Star*, and *Ojai Valley News*.

As a result of these notification efforts, written and verbal comments were received from 17 State and local agencies, 40 organizations, and 216 individuals on the content of the draft EIR. Chapter 3, "Comments and Responses to Comments," identifies these commenting parties, their respective comments, and responses to these comments. None of the comments received, or the responses provided, constitute "significant new information" by CEQA standards (State CEQA Guidelines CCR Section 15088.5).

1.6.2 Next Steps in the CEQA Process

Before adopting the 2040 General Plan, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the lead agency.

Upon certification of an EIR, the lead agency makes a decision on the project analyzed in the EIR. A lead agency may: (a) disapprove a project because of its significant environmental effects; (b) require changes to a project to reduce or avoid significant environmental effects; or (c) approve a project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (State CEQA Guidelines Sections 15042 and 15043).

In approving a project, for each significant impact of the project identified in the EIR, the lead or responsible agency must find, based on substantial evidence, that either: (a) the project has been changed to avoid or substantially reduce the magnitude of the impact; (b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or (c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (State CEQA Guidelines Section 15091). Per PRC Section 21061.1, feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account, economic, environmental, legal, social, and technological factors.

If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision and explains why the project's benefits outweigh the significant environmental effects (State CEQA Guidelines Section 15093).

When an agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects (State CEQA Guidelines Section 15091[d]).

1.7 ORGANIZATION OF THE FINAL EIR

This final EIR is organized as follows:

Chapter 1, "Introduction," describes the purpose of the final EIR, summarizes the 2040 General Plan and the major conclusions of the draft EIR, provides an overview of the CEQA public review process, and describes the content of the final EIR.

Chapter 2, "Comments and Responses to Comments," contains a list of all parties who submitted comments on the draft EIR during the public review period, copies of the comment letters received and responses to the comments. The chapter begins with a set of master responses that were prepared to respond comprehensively to multiple comments that raised similar issues. A reference to the master response is provided, where relevant, in responses to individual comments.

Chapter 3, "Revisions to the Draft EIR," presents revisions to the draft EIR text made in response to comments, or to amplify, clarify or make minor modifications or corrections. Changes in the text are signified by double ~~strikeouts~~ where text is removed and by double underline where text is added.

Chapter 4, "References," identifies the documents used as sources for the analysis.

Chapter 5, "Report Preparers," identifies the lead agency contacts as well as the preparers of this final EIR.

2 COMMENTS AND RESPONSES TO COMMENTS

This chapter contains comment letters received during the public review period for the draft EIR, which concluded on February 27, 2020. In conformance with Section 15088(a) of the State CEQA Guidelines, written responses were prepared addressing comments on environmental issues received from reviewers of the draft EIR.

2.1 LIST OF COMMENTERS ON THE DRAFT EIR

Table 2-1 presents the list of commenters, including the numerical designation for each comment letter received, the author of the comment letter, and the date of the comment letter.

Table 2-1 List of Commenters

| Letter No. | Commenter | Date |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| AGENCIES | | |
| A1 | California Coastal Conservancy Christopher Kroll, Project Manager | February 27, 2020 |
| A2 | California Department of Conservation, Division of Mine Reclamation Carol E. Atkins, Manager, Environmental Services Unit Paul Fry, Manager, Engineering and Geology Unit | February 27, 2020 |
| A3 | California Department of Fish and Wildlife Erinn Wilson, Environmental Program Manager I | February 26, 2020 |
| A4 | California Department of Transportation, District 7 Alan Lin, P.E., Project Coordinator | February 25, 2020 |
| A5 | California Department of Transportation, District 7 Miya Edmonson, IGR/CEQA Branch Chief | February 27, 2020 |
| A6 | Calleguas Municipal Water District Dan Drugan, Manager of Resources | February 24, 2020 |
| A7 | City of Camarillo Dave Norman, City Manager | February 21, 2020 |
| A8 | City of Moorpark Douglas Spondello, Planning Manager | February 27, 2020 |
| A9 | City of Ojai James Vega, City Manager | February 26, 2020 |
| A10 | City of Oxnard Jeffrey Lambert, AICP, Community Development Director | February 27, 2020 |
| A11 | Santa Monica Mountains Conservancy Irma Munoz, Chairperson | February 24, 2020 |
| A12 | U.S. Department of the Navy, Naval Base Ventura County J.E. Chism, Captain, U.S. Navy Commanding Officer | February 27, 2020 |
| A13 | Ventura County Agricultural Policy Advisory Committee Sanger Hedrick, Chair Scott Deardorff, District 2 Patty Waters, District 4 | February 27, 2020 |
| A14 | Ventura County Air Pollution Control District Dr. Laki Tisopulos, Air Pollution Control Officer | February 27, 2020 |

Table 2-1 List of Commenters

| Letter No. | Commenter | Date |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| A15 | Ventura County Public Works James Maxwell, Groundwater Specialist | February 27, 2020 |
| A16 | Ventura County Public Works Sergio Vargas, Deputy Director, Watershed Protection District, PWA | February 27, 2020 |
| A17 | Ventura Water Susan Rungren, General Manager | February 27, 2020 |
| ORGANIZATIONS | | |
| O1 | 350 Ventura County Climate Hub Jan Dietrick and 204 Signatories | February 27, 2020 |
| O2 | ABA Energy Corporation Alan B. Adler, President | February 27, 2020 |
| O3 | Action for Change in Changing Times Frank C. Bognar | February 25, 2020 |
| O4 | Action for Change in Changing Times Cindy Piester, Carin Wofford, Jabbar Wofford, Leslie Purcell, Margo Davis, Gail Hodgson, Alan Hodgson, Carol Vasecky, Alex Uvari, Marisa Sanchez, Arturo Guido, Frank Bognar, Geoffrey Dann, Wendy Lofland, Rosyln Jean Scheuerman, Paul Benevidez, Nissa Benevidez, Ivsar Marina, Andrew Steel, Nancy Genevieve Oatway, Nicholas Oatway, Rev. Dr. Audrey Wise Vincent, Martin Jones, Susan Shamroy, Margaret Wilson, Nikki G. Alexander, Edward G. Alexander, Dianne Kenny, Judith Cuevas, Ray Cuevas, Gillian Dale, Nancy Shuman, Mark Shuman, Amelia Aparicio, Jeremy Kersch, Debra Myrent, Nick Corrett, Janet Murphy, Heidi Rosenfield, Sheila Williams, Lucy Duffy, Frank Peterson, Heidi Whelan, Sandy Beckner, Laura Schneider, Betsy Shipley, Gerald Schwanke, Angela Grismer, Julie Shaw, Diana Cooley, Pam Holley-Wilcox, Karen Trowbridge, Beverly Brovsky, and Arnett Smithson | February 27, 2020 |
| O5 | Aera Energy LLC Michael S. James, Senior Counsel | February 27, 2020 |
| O6 | Aera Energy LLC William J. Spear III, Ventura Manager of Operations | February 27, 2020 |
| O7 | Borchard Companies, Inc John W. Borchard, Jr., Chief Financial Officer | February 27, 2020 |
| O8 | Building Industry Legal Defense Foundation Adam S. Wood, Administrator | February 27, 2020 |
| O9 | California Construction and Industrial Materials Association Adam Harper, Director of Policy Analysis | February 27, 2020 |
| O10 | California Independent Petroleum Association Rock Zierman, Chief Executive Officer | February 27, 2020 |
| O11 | California Native Plant Society David L. Magney, CNPS Rare Plant Program Manager | February 24, 2020 |
| O12 | California Native Plant Society David L. Magney, CNPS Rare Plant Program Manager | February 27, 2020 |
| O13 | Alston & Bird Matthew C. Wickersham | February 26, 2020 |
| O14 | Camarillo Chamber of Commerce Gary Cushing, MPPA, CEO | February 27, 2020 |

Table 2-1 List of Commenters

| Letter No. | Commenter | Date |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| O15 | Carbon California Company Neal Maguire | February 26, 2020 |
| O16 | Center for Biological Diversity J.P. Rose, Urban Wildlands Staff Attorney | February 24, 2020 |
| O17 | Channel Islands Bicycle Club Leslie Ogden, President | February 24, 2020 |
| O18 | Climate First: Replacing Oil & Gas John Brooks, President | February 25, 2020 |
| O19 | Climate First: Replacing Oil & Gas | February 26, 2020 |
| O20 | Climate First: Replacing Oil & Gas Kevin P. Bundy, Shute, Mihaly & Weinberger LLP | February 27, 2020 |
| O21 | Coast Ranch Family LLC Laura K. McAvoy, Musick, Peeler, & Garrett LLP | February 25, 2020 |
| O22 | Community Environmental Council Sigrid Wright, Executive Director | February 27, 2020 |
| O23 | Laborers' International Union of North America Martin Rodriguez, President, Tri-Counties Building & Construction Trades Council Tony Skinner, Executive Secretary-Treasurer, Tri-Counties Building & Construction Trades Council Jeff Bode, Business Manager, International Brotherhood of Electrical Workers Local 952 Anthony Mireles, Business Manager, LiUNA Laborers Local 585 Mercy Urrea, Southwest Regional Council of Carpenters | February 27, 2020 |
| O24 | Oxnard Chamber of Commerce Nancy Lindholm, President/CEO | February 24, 2020 |
| O25 | Port of Hueneme: Oxnard Harbor District Kristin Decas, CEO & Port Director | February 27, 2020 |
| O26 | Renaissance Petroleum, LLC Marc Wade Traut, President | February 26, 2020 |
| O27 | SoCalGas Jennifer Pezda, MESM, Environmental Policy Advisor | February 21, 2020 |
| O28 | SoCalGas Deanna Haines, Director Policy, Strategy and Environment | February 27, 2020 |
| O29 | Ventura Citizens for Hillside Preservation | February 26, 2020 |
| O30 | Ventura County Archaeological Society Julie Swift, President-Elect | February 27, 2020 |
| O31 | Ventura County Chamber of Commerce Stephanie Caldwell, President & CEO | February 26, 2020 |
| O32 | Ventura County Coalition of Labor, Agriculture and Business Louise Lampara, Executive Director | February 25, 2020 |
| O33 | Ventura County Economic Development Association Sandy E. Smith, VCEDA Policy Chair | February 27, 2020 |
| O34 | Ventura County Tax Payers Association David Grau, President | February 25, 2020 |
| O35 | Ventura County Transportation Commission Amanda Fagan, Director of Planning and Policy | February 27, 2020 |

Table 2-1 List of Commenters

| Letter No. | Commenter | Date |
|--------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------|
| O36 | Vertical Wellness Elyse Kaplan, Corporate Counsel | February 21, 2020 |
| O37 | Western States Petroleum Association Ben Oakley, California Coastal Region Manager | February 27, 2020 |
| O38 | Western States Petroleum Association and California Independent Petroleum Association Cathy Reheis-Boyd, President | February 27, 2020 |
| O39 | Wishtoyo Chumash Foundation Tevin Schmitt, Watershed Scientist | February 25, 2020 |
| O40 | The Wood-Claeysens Foundation Noelle C Burkey, Chief Executive Officer | February 21, 2020 |
| INDIVIDUALS | | |
| I1 | Adam Vega | February 27, 2020 |
| I2 | Alda L Perry | February 26, 2020 |
| I3 | Ally Gialketsis | February 22, 2020 |
| I4 | Andy Ehrhart | February 25, 2020 |
| I5 | Ann C Cooluris | February 24, 2020 |
| I6 | Anna Chambers | February 27, 2020 |
| I7 | Anna Chambers | February 27, 2020 |
| I8 | Anna Chambers | February 27, 2020 |
| I9 | Anna Chambers | February 27, 2020 |
| I10 | Aubrey E Sloan | February 25, 2020 |
| I11 | Audrey H Fester | February 25, 2020 |
| I12 | Barb Miller | February 24, 2020 |
| I13 | Barbara Leighton | February 23, 2020 |
| I14 | Beverly Chambers de Nicola | February 25, 2020 |
| I15 | Beverly Chambers de Nicola | February 25, 2020 |
| I16 | Beverly Chambers de Nicola | February 25, 2020 |
| I17 | Beverly Chambers de Nicola | February 25, 2020 |
| I18 | Beverly Gutierrez | February 24, 2020 |
| I19 | Bruce Holley | February 23, 2020 |
| I20 | Bruce Smith, AICP | February 24, 2020 |
| I21 | Carol Holly | February 27, 2020 |
| I22 | Carolyn Diacos | February 24, 2020 |
| I23 | Chad Christensen | February 25, 2020 |
| I24 | Chris Raymond | February 26, 2020 |
| I25 | Christina Pasetta | February 24, 2020 |
| I26 | Christina Pasetta | February 20, 2020 |
| I27 | Christine Brennan | February 26, 2020 |
| I28 | Christopher Tull | February 19, 2020 |

Table 2-1 List of Commenters

| Letter No. | Commenter | Date |
|-------------------|------------------------------------------------------|-------------------|
| I29 | Christopher Tull | February 27, 2020 |
| I30 | Christopher Tull | February 27, 2020 |
| I31 | Chuck Carmichael | February 25, 2020 |
| I32 | Clint Fultz | February 23, 2020 |
| I33 | Cynthia Thomas Dickson | February 27, 2020 |
| I34 | Daniel J Chambers | February 27, 2020 |
| I35 | Dario Grossberger | February 27, 2020 |
| I36 | Dave Chambers | February 25, 2020 |
| I37 | Dave Holroyd Chambers | February 25, 2020 |
| I38 | Dave Holroyd Chambers | February 25, 2020 |
| I39 | Dave Holroyd Chambers | February 27, 2020 |
| I40 | Dave Holroyd Chambers and Beverly Chambers de Nicola | February 25, 2020 |
| I41 | David S Armstrong | February 27, 2020 |
| I42 | David Czarnecki | February 27, 2020 |
| I43 | Dawn Kuznowski | February 27, 2020 |
| I44 | Dennis Reynolds | February 25, 2020 |
| I45 | Derek McLaughlin | February 25, 2020 |
| I46 | Diana Kubilos | February 27, 2020 |
| I47 | Diane Diedrich | February 24, 2020 |
| I48 | Dominick McCormick | February 24, 2020 |
| I49 | Donald Price | February 25, 2020 |
| I50 | Dulaine and Douglas La Barre | February 3, 2020 |
| I51 | Edward Chambers, MD | February 25, 2020 |
| I52 | Edward Michael McMonigle | February 27, 2020 |
| I53 | Elizabeth Chambers Martinez | February 25, 2020 |
| I54 | Elizabeth Chambers Martinez | February 27, 2020 |
| I55 | Elizabeth Chambers Martinez | February 27, 2020 |
| I56 | Elizabeth Siboldi | February 26, 2020 |
| I57 | Emily Hirsch | February 23, 2020 |
| I58 | Erik Fruth | February 27, 2020 |
| I59 | Fiona Bremner | February 21, 2020 |
| I60 | Fred J Ferro | February 26, 2020 |
| I61 | Gabriel R. Duarte | February 27, 2020 |
| I62 | Garry Star | February 24, 2020 |
| I63 | Gary L Wolfe | February 25, 2020 |
| I64 | Geoffrey Dann | February 25, 2020 |
| I65 | George A Graham | February 24, 2020 |
| I66 | Geraldine Gramckow | February 24, 2020 |

Table 2-1 List of Commenters

| Letter No. | Commenter | Date |
|-------------------|-----------------------------------------------|-------------------|
| I67 | Gloria Valladolid | February 22, 2020 |
| I68 | Gordon Clint | February 23, 2020 |
| I69 | Gregory H Smith | February 25, 2020 |
| I70 | H Elaine Cavaletto | February 27, 2020 |
| I71 | Harmony Echberg | February 2, 2020 |
| I72 | Heather Gilchrist-Wise | February 27, 2020 |
| I73 | (illegible) C/O Hoffman, Vance, & Worthington | February 24, 2020 |
| I74 | James Brehm | February 26, 2020 |
| I75 | Jan Dietrick and Ron Whitehurst | February 27, 2020 |
| I76 | Jeannette Welling | February 9, 2020 |
| I77 | Jeffery P Smith | February 25, 2020 |
| I78 | Jenn Foster | February 27, 2020 |
| I79 | Jennifer Johnson | February 26, 2020 |
| I80 | Jim Whitney | February 19, 2020 |
| I81 | Jim Whitney | February 19, 2020 |
| I82 | Jim Whitney | February 19, 2020 |
| I83 | Jim Whitney | February 19, 2020 |
| I84 | Jimmy Young | February 26, 2020 |
| I85 | John Brooks | February 10, 2020 |
| I86 | John Brooks | February 17, 2020 |
| I87 | John Brooks | February 26, 2020 |
| I88 | John Brooks | February 27, 2020 |
| I89 | John Chambers | February 27, 2020 |
| I90 | John Cloonan | February 18, 2020 |
| I91 | John M Foster | February 27, 2020 |
| I92 | John Vanoni | February 27, 2020 |
| I93 | Joseph Lampara | February 26, 2020 |
| I94 | Josh Wells | February 25, 2020 |
| I95 | June Behar | February 26, 2020 |
| I96 | Jurgen Gramckow | February 24, 2020 |
| I97 | Karen Lindberg and John Tarascio | February 24, 2020 |
| I98 | Karen Socher | February 1, 2020 |
| I99 | Kari Aist | February 27, 2020 |
| I100 | Katharine S Simmons | February 27, 2020 |
| I101 | Katherine R Euylee | February 25, 2020 |
| I102 | Kathy Lottes | February 27, 2020 |
| I103 | Keelan Dann | February 26, 2020 |
| I104 | Keith Barrow | February 25, 2020 |

Table 2-1 List of Commenters

| Letter No. | Commenter | Date |
|-------------------|-------------------------------------|-------------------|
| I105 | Kelley Raymond | February 27, 2020 |
| I106 | Kevin McAtee | February 24, 2020 |
| I107 | Kristen Kessler | February 28, 2020 |
| I108 | Kristen Kessler | February 26, 2020 |
| I109 | Kristin Viemeister | February 27, 2020 |
| I110 | Lara Shellenbarger and Brent Meeker | February 24, 2020 |
| I111 | Laura K. McAvoy | February 25, 2020 |
| I112 | Leah Kolt | February 20, 2020 |
| I113 | Leslie Purcell | February 27, 2020 |
| I114 | Linda Harmon | February 26, 2020 |
| I115 | Lisa Eklund | February 25, 2020 |
| I116 | Lisa Woodburn | February 26, 2020 |
| I117 | Lyle Neely | February 25, 2020 |
| I118 | Marcia Czarnecki | February 27, 2020 |
| I119 | Margaret Chambers McMonigle | February 27, 2020 |
| I120 | Margaret Chambers McMonigle | February 27, 2020 |
| I121 | Margaret Chambers McMonigle | February 27, 2020 |
| I122 | Margaret Kimball | February 27, 2020 |
| I123 | Margo Ferris | February 25, 2020 |
| I124 | Margot Davis | February 25, 2020 |
| I125 | Marianne McGrath | February 24, 2020 |
| I126 | Marie Taylor | February 27, 2020 |
| I127 | Marjie Bartels | February 27, 2020 |
| I128 | Mark Mendelsohn | February 21, 2020 |
| I129 | Marshall C Milligan | February 25, 2020 |
| I130 | Martha Brown | February 27, 2020 |
| I131 | Martina Gallegos | February 23, 2020 |
| I132 | Mary Chambers Moro | February 26, 2020 |
| I133 | Mary Chambers Moro | February 26, 2020 |
| I134 | Mary Ellen Gravel | February 25, 2020 |
| I135 | Mary Freed | February 26, 2020 |
| I136 | Mary Katherine Chambers McMonigle | February 27, 2020 |
| I137 | Mary Katherine Chambers McMonigle | February 27, 2020 |
| I138 | Mary Katherine Chambers McMonigle | February 27, 2020 |
| I139 | Mary Kathleen McGrath | February 24, 2020 |
| I140 | Mary Vanoni | February 26, 2020 |
| I141 | Mary Victoria Taylor | February 26, 2020 |
| I142 | Mary Volpe | February 22, 2020 |

Table 2-1 List of Commenters

| Letter No. | Commenter | Date |
|-------------------|-----------------------------|-------------------|
| I143 | McLoughlin Family Committee | February 25, 2020 |
| I144 | Meghan McMonigle | February 27, 2020 |
| I145 | Meghan McMonigle | February 27, 2020 |
| I146 | Meghan McMonigle | February 27, 2020 |
| I147 | Melinda Ann Barrow | February 25, 2020 |
| I148 | Michael Diacos | February 24, 2020 |
| I149 | Michael Fairbanks | February 25, 2020 |
| I150 | Michael Hayes | February 27, 2020 |
| I151 | Michael L. Poland | February 25, 2020 |
| I152 | Michael Penrod | February 25, 2020 |
| I153 | Michael Shapiro | February 22, 2020 |
| I154 | Michele DuPratt | February 23, 2020 |
| I155 | Michelle Ellison | February 27, 2020 |
| I156 | Michelle Kenney | February 25, 2020 |
| I157 | Mike Maulhardt | February 25, 2020 |
| I158 | Molly Neely | February 25, 2020 |
| I159 | Monica Gray | February 26, 2020 |
| I160 | Nicole Zarate | February 25, 2020 |
| I161 | Nina Danza | February 21, 2020 |
| I162 | Noah Aist | February 22, 2020 |
| I163 | Noelle C Burkey | February 21, 2020 |
| I164 | Norene Charnofsky | February 24, 2020 |
| I165 | Nova Clite | February 24, 2020 |
| I166 | P. Lyn Middleton | February 23, 2020 |
| I167 | Pamela Holley-Wilcox | February 21, 2020 |
| I168 | Pamela Klieman | February 27, 2020 |
| I169 | Pat Peters | February 27, 2020 |
| I170 | Patrick Chambers de Nicola | February 27, 2020 |
| I171 | Patrick Chambers de Nicola | February 27, 2020 |
| I172 | Patrick de Nicola | February 27, 2020 |
| I173 | Patrick de Nicola | February 27, 2020 |
| I174 | Patsy Turner | February 25, 2020 |
| I175 | Paul Aist | February 27, 2020 |
| I176 | Phil White | February 20, 2020 |
| I177 | Phillip Fuess | February 27, 2020 |
| I178 | Polly Nelson | February 2, 2020 |
| I179 | R W Bowman | February 25, 2020 |
| I180 | Rain Perry | February 10, 2020 |

Table 2-1 List of Commenters

| Letter No. | Commenter | Date |
|-------------------|----------------------------------|-------------------|
| I181 | Rebecca Swift | February 14, 2020 |
| I182 | Richard Atchley | February 27, 2020 |
| I183 | Richard Gould | February 22, 2020 |
| I184 | Richard Gray | February 21, 2020 |
| I185 | Robert & Sandra Kurtz | February 25, 2020 |
| I186 | Robert M Chambers | February 26, 2020 |
| I187 | Robert M Chambers | February 26, 2020 |
| I188 | Robert M Chambers | February 27, 2020 |
| I189 | Robert M Chambers | February 27, 2020 |
| I190 | Robin Munson | February 26, 2020 |
| I191 | Scott Hirsch | February 27, 2020 |
| I192 | Sean McGrath | February 24, 2020 |
| I193 | Sherlayne Glenn | February 25, 2020 |
| I194 | Sophia Valentina Arce | February 27, 2020 |
| I195 | Stan Chambers | February 25, 2020 |
| I196 | Stanley Holroyd Chambers III | February 26, 2020 |
| I197 | Steve Nash | February 26, 2020 |
| I198 | Steven Colome | February 26, 2020 |
| I199 | Susan Chapman | February 14, 2020 |
| I200 | Susan Poland | February 25, 2020 |
| I201 | Teal Rowe | February 26, 2020 |
| I202 | Teresa Jordan | February 5, 2020 |
| I203 | Tessa Salzman | February 27, 2020 |
| I204 | Thomas L Erickson | February 25, 2020 |
| I205 | Thomas McCormick | February 23, 2020 |
| I206 | Timothy F. Malloy | February 27, 2020 |
| I207 | Timothy Shaw McGrath | February 24, 2020 |
| I208 | Tina Rasnow and Dr. Brian Rasnow | February 26, 2020 |
| I209 | Tom Erickson | February 22, 2020 |
| I210 | Toril Raymond | February 27, 2020 |
| I211 | Toril Raymond | February 27, 2020 |
| I212 | Walt Beil | February 27, 2020 |
| I213 | Wayne Morgan | February 27, 2020 |
| I214 | William B. Kendall | February 25, 2020 |
| I215 | William A Miller | February 26, 2020 |
| I216 | William Taylor and Kasey Taylor | February 27, 2020 |

2.2 MASTER RESPONSES

Several comments on the draft EIR raised similar issues. Rather than responding individually, master responses have been developed to address the comments comprehensively. Master responses are provided for the following topics: greenhouse gas emissions; 2040 General Plan land use, population projections and buildout assumptions; the 2020 Regional Housing Needs Allocation and 2021-2029 Housing Element Update; 2040 General Plan oil and gas policies; draft EIR Mitigation Measure AG-2 for loss of important farmland; the 2040 General Plan Background Report; and recirculation of the draft EIR. A reference to the master response is provided, where relevant, in responses to the individual comments.

MR 1 Master Response 1: Greenhouse Gas Emissions Inventory and Forecast; Greenhouse Gas Reduction Targets; Policies, Implementation Programs, and Mitigation Measures to Reduce Greenhouse Gas Emissions

Several commenters raised concerns about the approach and adequacy of the greenhouse gas (GHG) reduction policies, programs, and mitigation measures analyzed in Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR. This master comment response addresses recurring comments related to the GHG emissions inventory, forecast, targets, plans and programs to reduce GHG emissions included in the 2040 General Plan, and GHG mitigation measures identified in the draft EIR.

MR-1.A GREENHOUSE GAS INVENTORY AND FORECAST

Several commenters raised questions about the methodologies used for the County’s 2015 GHG inventory. This inventory set the baseline emissions for forecasting and identified the “gap” between the forecast emissions and targets set by the 2040 General Plan (i.e., the reductions in emissions needed to achieve the targets). The GHG emissions inventory was produced using the 2013 ICLEI U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions, the latest version available at the time of publication. The U.S. Community Protocol is an industry standard protocol used by local governments throughout the United States for quantification of communitywide GHG emissions. The County followed this protocol in the preparation of the inventory with assistance from a team of external consultants with extensive project experience and post-secondary degrees in atmospheric science, engineering, sustainability planning and environmental science.

Global Warming Potential Values

The GHG inventory uses global warming potential (GWP) values consistent with the latest version of the Intergovernmental Panel on Climate Change Assessment Report 5 (IPCC AR5). Also, using GWP values for a 100-year time horizon is industry standard and is used in the CARB Statewide GHG inventory.

Industrial Sources

Comments were received about the exclusion of industrial sources from the inventory. Electricity related GHG emissions from industrial sources were not able to be quantified due to privacy rules set by the California Public Utilities Commission and enforced by Southern California Edison during the data request for the inventory. Although these emissions could not

be quantified, the draft EIR proposes Mitigation Measure GHG-2 which would create a new program for an energy savings ordinance specific to industrial facilities to reduce future GHG emissions occurring from these sources.

The GHG inventory prepared to characterize baseline emissions in the county is summarized in Table 4.8-1 of the draft EIR. This inventory provides estimates for stationary source emissions, which include oil and gas extraction activity within the unincorporated county.

Oil and Gas Production

Emissions associated with oil and gas wells were included in the inventory. Emissions resulting from uses of petroleum by activities within the county are also accounted for. Uses of oil and gas produced in Ventura County but consumed outside of the county are not included in the inventory because the County does not have authority to plan for emissions reductions outside of its own jurisdiction. In addition, the inclusion of these types of lifecycle emissions is not required for the California Environmental Quality Act (CEQA) analysis or GHG reduction planning.

Fugitive Methane Emissions

Several commenters also noted that a group of GHG emitting sources collectively known as “super emitters” were not included in the analysis. This category of fugitive methane emissions was not included because there is lack of consensus among scientific experts on a technical definition for “super emitter” sources. A 2019 publication from the United Nations on best practices for effective methane management acknowledges “...there is no single quantitative definition of a super-emitter, some consider them to be the top 5 percent of emissions sources while others consider them to be sources defined vis-a-vis an average emission factor (e.g. 5 times the average emission factor) or with the top 15 percent emission factors” (UNECE 2019). Fugitive emissions from stationary sources, including oil and gas extraction, were modeled following the California Air Resource Board’s recommended methodology. Refer to final EIR Attachment 2 for further explanation of the methodology used to quantify fugitive methane emissions from stationary sources. Also refer to Master Response MR-4 pertaining to oil and gas policies for additional information.

Summary of Revisions to the 2015 Greenhouse Gas Inventory and 2040 Forecast

Appendix D to the draft EIR has been revised in response to comments received on the draft EIR that expressed concern over the methodology used to quantify and forecast stationary source emissions and solid waste emissions. After reviewing the calculations behind the stationary source and solid waste emissions, calculation errors were discovered and have been corrected, and new data have been used to revise the GHG inventory and forecasts. These changes resulted in an overall reduction in total GHG emissions estimates compared to the total GHG emissions calculated in the draft EIR. Refer to Attachment 2 to this final EIR for a more detailed explanation of these changes.

The revised inventory would reduce the amount of emissions needed to meet the County’s GHG targets, which would result in minor modifications to the draft EIR analysis (as provided in Chapter 3, “Revisions to the Draft EIR”). These revisions clarify and support the analysis and conclusions in the draft EIR, and would not result in new or more severe significant impacts. The GHG reduction policies and programs of the 2040 General Plan identified in the draft EIR analysis would not be affected and forecasted GHG emissions would still result in significant and unavoidable impacts.

Greenhouse Gas Inventory and Forecasting Methodology for Solid Waste and Stationary Source Emissions

Solid Waste

Multiple comments received during the public review of the draft EIR addressed the methodology used to quantify emissions from the solid waste sector. Solid waste emissions consist of methane emissions generated by the anaerobic decay of organic material within a landfill. This sector consists of two types of emissions sources: waste generation and waste-in-place. The comments on the solid waste emissions methodology for the GHG inventory and GHG forecast are discussed further below.

Waste generation emissions refer to methane emissions related to the waste disposed in open landfills during the baseline year of emissions inventory. The inventory used Equation SW.4.1 from the ICLEI U.S. Communities Protocol (an emissions factor of 0.041 metric tons of CH₄ per ton) to quantify emissions from the disposal based on tonnage rates for each landfill in the county available from CalRecycle. This formula also accounts for landfills that have systems in place to capture fugitive methane emissions. Forecasted waste generation emissions were scaled from 2015 based on the anticipated change in the county's population.

Waste-in-place emissions refer to methane emissions from waste stored in place at a landfill since the landfill first accepted waste, excluding waste deposited in its first year. Emissions from "waste-in-place" can occur from both open and closed landfills, depending on how recently the landfills were closed. In the draft EIR, the 2015 waste-in-place emissions for two of the largest landfills in Ventura County (Simi Valley Landfill and Toland Road Landfill) were taken from the U.S. Environmental Protection Agency's (EPA) Facility Level Information on Greenhouse Gases Tool (FLIGHT) database (EPA 2016). The 2015 waste-in-place emissions inventory for other smaller landfills and forecasts of all waste-in-place emissions were based on landfill total tonnages and landfill open and past or anticipated closure dates. This information was input into CARB's Landfill Emissions Tool (LET) (November 2011 Version), assuming a constant rate of annual disposal, in order to estimate 2015 and post-2015 emissions.

Comments correctly pointed out inconsistencies for the GHG emission forecasts for Simi Valley Landfill and Toland Road Landfill in the solid waste emission calculations in Appendix D of the draft EIR. This inconsistency was due to the following errors. For Toland Road Landfill, the draft EIR incorrectly forecasted methane emissions by scaling the landfill's 2015 emissions by waste-in-place emissions for a landfill outside the county. For Simi Valley Landfill, forecasts were based on an annual decay rate of 0.059 percent per year which was incorrectly calculated from the LET. This low decay rate resulted in a much slower decay forecast for Simi Valley Landfill than Toland Road Landfill.

The methodology intended for forecasting waste-in-place emissions in the draft EIR and recalculated in the final EIR is as follows. For Simi Valley Landfill and Toland Road Landfill, waste-in-place emission forecasts were scaled from their FLIGHT 2015 emissions by the relative decay anticipated in CARB's LET based on the disposal rates and open and closure dates for those landfills. This method was used for consistency with landfill-specific emissions calculations from FLIGHT, which accounts for any landfill gas capture systems, and the anticipated decay rates in the LET model.

Table 2-2 compares the results for these two landfills between the draft EIR and final EIR. The revised forecast shows lower landfill emissions, consistent with the anticipated decay in organic waste at each landfill.

Table 2-2 Comparison of GHG Emissions Forecasts (Business-as-Usual Scenario) for Toland Road Landfill and Simi Valley Landfill in the Draft EIR and Final EIR (Metric Tons of Carbon Dioxide Equivalent [MTCO_{2e}])

| | 2020 | 2030 | 2035 | 2040 | 2050 |
|-----------------------------|------------|------------|------------|-------------|-------------|
| Toland Road Landfill | | | | | |
| Draft EIR | 2,366 | 1,937 | 1,777 | 1,618 | 1,244 |
| Final EIR | 2,794 | 2,842 | 2,572 | 2,327 | 1,905 |
| Difference | 428 | 905 | 795 | 709 | 661 |
| % Difference | 18% | 47% | 45% | 44% | 53% |
| Simi Valley Landfill | | | | | |
| Draft EIR | 6,127 | 6,091 | 6,073 | 6,055 | 6,019 |
| Final EIR | 6,437 | 6,548 | 5,925 | 5,361 | 4,389 |
| Difference | 310 | 457 | -148 | -694 | -1,630 |
| % Difference | 5% | 8% | -2% | -11% | -27% |

Source: Ascent Environmental 2020

Stationary Sources

The stationary sources sector is represented by emissions generated from fixed applications that are not related to electricity generation or consumer natural gas combustion, which are already accounted for in the building energy sector of the inventory. In the county, the major stationary sources are related to oil and gas production and processing. Emissions from oil and gas accounted for in this inventory include emissions from on-site combustion (e.g., flaring) of oil and associated gas (i.e., natural gas produced as a by-product from the processing of oil), as well as fugitive emissions from the processing and extraction of oil and gas. According to CARB, combustion sources are equipment burning fuel for energy; vented emissions are intentional releases of vapors to the atmosphere; and fugitive emissions are unintentional releases of vapors to the atmosphere (CARB 2013).

This inventory and forecast does not include emissions related to the combustion of oil and gas extracted in the county and sold by oil and gas producers, such as vehicular fuels or other petroleum products, nor does the inventory include supply chain-related emissions associated with oil and gas extracted in the county, such as the transport of oil via rail or maritime tankers. Emissions from combustion of vehicular fuels and rail and maritime activity are already captured in the transportation and off-road sectors where they pertain to activities within the jurisdictional boundary of the County. The process of organizing emissions this way is recommended by the ICLEI U.S. Communities Protocol (ICLEI 2013:12). Emissions occurring outside of the County's jurisdictional boundary are subject to inclusion the emissions inventory of the respective jurisdiction(s).

Emissions Inventory

The estimates of the County's 2015 GHG emissions from stationary sources included in the draft EIR were based on scaling State-level emissions to the county based on the county's respective production of oil and gas. However, comments on the draft EIR raised concerns

about the appropriateness of using this method to estimate GHG emissions associated with oil and gas production in the county. In response to these comments, both the 2015 inventory and forecasted oil and gas emissions have been recalculated in the final EIR to reflect county-specific emissions. The methods used to recalculate GHG emissions from oil and gas production in the GHG inventory and forecast are described below.

In 2013, CARB published a report that measured the GHG emissions from “upstream crude oil and natural gas production, processing, and storage operations” based on survey results that captured 97 percent of the crude oil and natural gas production in the State (CARB 2013). According to this report, in 2007, 276,793 MTCO_{2e} (adjusted for the Intergovernmental Panel on Climate Change’s Fifth Assessment Report’s global warming potential factors) were emitted within the jurisdiction of the Ventura County Air Pollution Control District (VCAPCD), which has the same geographic boundaries as Ventura County. For the purposes of this calculation the County has assumed that all oil and gas extraction within VCAPCD jurisdiction occurs in the unincorporated county. These emissions resulted from on-site combustion of fuels and fugitive (including vented) emissions generated during crude oil and gas production and processing. These 2007 emissions were scaled to 2015 levels based on the change in oil and gas production in the county between 2007 and 2015 according to the California Department of Conservation (California Department of Conservation 2020). From 2007 to 2015, oil production in the county increased slightly from 7.3 to 8.4 to million barrels, a 14.6 percent increase. Based on this change, the emissions were estimated to increase from 276,793 MTCO_{2e} in 2007 to 317,222 MTCO_{2e} in 2015. This scaling method is supported by CARB’s documentation of California’s GHG Inventory, where the emission factors for the oil and gas sector remained constant between 2007 and 2015, suggesting that emissions would change in proportion to oil production. See the Attachment 2 to this final EIR for additional calculation details.

Note that gas production is excluded from scaling of emissions because there is no reported natural gas production in the county. Additionally, associated gas production is gas produced as a byproduct of oil production.

Forecasts

Commenters also raised concerns that the historical oil and gas production data in the county used in the draft EIR to forecast GHG emissions did not reflect the overall trends in production in the county, and cited the county’s historical production data dating back to 1980. In the draft EIR, the county’s historical production data starting from 2008 were originally intended to determine production trends for GHG forecasting. However, the formulas in the calculation spreadsheet were not tied to the calculated average annual growth rate from 2008 and, instead, forecasts for years after 2020 were incorrectly linked to other growth rates.

Notwithstanding the errors associated with the incorrectly linked growth rates, the County has reviewed the county’s historical oil and gas production data from the California Department of Conservation starting from 1980, and noted an anomalous spike in oil and gas production occurred between 2008 and 2018, likely due to the effects of the global recession at the start of that period. This spike occurred in contrast to the overall decline in oil and gas production in the county. Since 1980, oil and gas production in the county has decreased by approximately 60 percent, following an inverted growth curve pattern characteristic of oil production decline.

In the final EIR, the forecast was corrected to align with how trends in the county’s production from 1980 to 2018 would continue through 2050. The historical production values were plotted

and fitted based on an exponential function, consistent with a declining growth curve. This function was used to forecast production through 2050. The forecasted oil production values, relative to 2015 production values, were then used to scale the county's 2015 oil and gas emissions, estimated from CARB's 2013 oil and gas survey report, to future years in the GHG forecast. See Attachment 2 for additional description of the forecast methodology used in the final EIR.

Table 2-3 shows the difference in the 2015 inventory and forecasts for emissions from stationary sources between the draft EIR and final EIR. The revised emissions show higher estimates for 2015, but substantially lower forecasts through 2050 compared to the draft EIR estimates.

Table 2-3 Comparison of GHG Emissions Inventory and Forecast (Business-as-Usual Scenario) for Stationary Sources in the Draft EIR and Final EIR (MTCO_{2e})

| Stationary Sources | 2015 | 2020 | 2030 | 2040 | 2050 |
|--------------------|---------|---------|----------|----------|----------|
| Draft EIR | 275,096 | 287,845 | 314,526 | 343,679 | 375,535 |
| Final EIR | 317,222 | 245,340 | 198,432 | 160,660 | 130,212 |
| Difference | 42,126 | -42,505 | -116,094 | -183,019 | -245,323 |
| %Difference | 15% | -15% | -37% | -53% | -65% |

A comparison of emissions estimates across all evaluated sectors between the draft and final EIRs is included in the Revised draft EIR Appendix D, Attachment 2 to the final EIR for additional calculation details.

MR-1.B GHG REDUCTION TARGETS

Comments were received about how the GHG emission targets were set for the 2040 General Plan. As explained on page B-13 of Appendix B, "Climate Change," of the draft 2040 General Plan:

To meet the Scoping Plan recommendation, the GHG reduction targets included in the General Plan are based on local levels of GHG emissions that would be proportional to the statewide reductions needed to achieve GHG emissions by 40 and 80 percent below 1990 levels by 2030 and 2050, respectively. A target for 2040, consistent with the final year of the General Plan was developed by interpolating the GHG reductions need to place the county on a path between the 2030 and 2050 target.

While the County does not have a 1990 GHG inventory from which to estimate GHG reductions, equivalent targets and goals were calculated for the County relative to the State's 2020, 2030, and 2050 mass emissions goals relative to its 1990 inventory, from which specific percent reductions relative to 2015 were developed. Therefore, consistent with and proportional to the State's target and goals relative to 2015 levels, the County's targets are expressed according to the following percentage reductions in GHG emissions relative to the County's 2015 community-wide GHG emission levels.

While the targets were selected for alignment with State Reduction Targets & Goals, it is not a requirement of Senate Bill 32 or the 2017 Climate Change Scoping Plan for local governments to set 2030 targets in line with State policy in their planning related to GHG reduction. Also,

executive orders such as S-03-05 and B-55-18, which establish statewide GHG reduction and carbon neutrality goals, do not require local governments to establish targets aligned with these statewide goals.

The alignment of statewide GHG reduction targets with those in local planning documents specifically pertains to GHG reduction plans that were intended to qualify for the streamlining of future project-level CEQA analysis for GHG emissions pursuant to State CEQA Guidelines Section 15183.5(b). Even though the County's targets were selected to align with Statewide GHG targets and goals, note that the deletion of Implementation Program COS-EE through draft EIR Mitigation Measure GHG-3 would eliminate the 2040 General Plan's potential for streamlining of project-level CEQA analyses for future projects pursuant to State CEQA Guidelines Section 15183.5(b).

MR-1.C GREENHOUSE GAS REDUCTION POLICIES, PROGRAMS AND MITIGATION MEASURES

Integrated Climate Action Planning

The 2040 General Plan includes many of the typical components of a Climate Action Plan (CAP). These pieces of a CAP are integrated into the 2040 General Plan. The 2040 General Plan's policies and programs to reduce greenhouse gas emissions are not made less effective or enforceable by virtue of incorporation into the 2040 General Plan. Because the 2040 General Plan includes content that would similarly be contained in a standalone CAP, such as targets for GHG reductions aligned with State targets and goals and policies and implementation programs to achieve future GHG emissions reductions, the County has designed the 2040 General Plan to reduce countywide GHG emissions, similar to how other local jurisdictions have designed standalone CAPs. Note that there is no legal requirement for the local jurisdiction to prepare a standalone CAP or to include one in a General Plan. However, the State CEQA Guidelines do include provisions for tiering and streamlining the analysis of GHG emissions through a local jurisdictions voluntary decision to prepare a "plan for the reduction of greenhouse gas emissions" (Section 15183.5[b]). As explained further below, plans for the reduction of greenhouse gas emissions can allow lead agencies to streamline the project-level analysis of greenhouse gas emissions under CEQA but do not mandate that the County or any lead agency prepare a plan for the reduction of greenhouse emissions or a CAP.

In addition, the County acknowledges that the 2040 General Plan does not meet requirements for streamlining and tiering subsequent California Environmental Quality Act (CEQA) review of project-level greenhouse gas emissions pursuant to State CEQA Guidelines Section 15183.5. There is no requirement that the 2040 General Plan meet CEQA requirements for streamlined review. Moreover, Page 4.8-46 of the draft EIR recommends Mitigation Measure GHG-3, which would remove the CEQA streamlining provision proposed in Implementation Program COS-EE from the 2040 General Plan and specify that the potential greenhouse gas (GHG) emissions impacts of future, discretionary projects be reviewed in accordance with the most recently adopted version of the ISAG at the time of project-level environmental review. The draft EIR explains that Mitigation Measure GHG-3 could result in additional GHG emission reductions if improved technologies, design features, or the like that are infeasible or unavailable today become available and are included in future discretionary development projects or required as part of future project-level environmental reviews. To the extent this were to occur, this mitigation measure would improve progress toward meeting the 2030 and

post-2030 GHG reduction targets. However, it would be speculative to determine at this time whether and how Mitigation Measure GHG-3 would affect future GHG emissions in the county. Because GHG emissions impacts of the 2040 General Plan would remain significant and unavoidable with mitigation (i.e., there is not sufficient evidence available at this time to conclude that the policies and programs of the 2040 General Plan would, if implemented on a project-by-project basis, achieve the County's GHG reduction targets for 2030 or post-2030 per Section 15183.5[b][1][d]), the County does not intend to use the 2040 General Plan as a "plan for the reduction of greenhouse gas emissions" pursuant to Section 15183.5 and has removed such references from the 2040 General Plan as shown in the Ventura County Planning Commission hearing materials for July 16, 2020 (see exhibit for "Planning Division Recommended Revisions to the 2040 General Plan").

Analysis of Greenhouse Gas Emissions in the Draft EIR

The draft EIR includes a detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county (pages 4.8-37 to 4.8-45). Moreover, Section 4.8, "Greenhouse Gas Emissions," of the draft EIR includes seven feasible mitigation measures that meet CEQA requirements and address the potentially significant GHG emissions impacts of the 2040 General Plan (draft EIR pages 4.8-45 to 4.8-47). Thus, the draft EIR correctly identifies and considers 2040 General Plan policies and programs with respect to GHG emissions and correctly includes feasible and enforceable mitigation measures to reduce the emissions.

In preparing the GHG analysis provided in the draft EIR, the County considered, and included references to, the proposed 2040 General Plan policies and implementation programs most applicable to the analysis. As explained in the methodology subsection in Section 4.8, "Greenhouse Gas Emissions," (page 4.8-7), the analyses evaluate whether the GHG reduction benefits of these policies and programs are supported by substantial evidence. Substantial evidence leading to estimates of GHG emissions resulting from implementation of the 2040 General Plan include both qualitative and quantitative assessments.

Table 4.8-5 in the draft EIR summarizes the policies and programs that would have quantifiable GHG reductions by 2030 (page 4.8-39). Other policies and programs of the 2040 General Plan would also result in GHG reductions but specific amounts cannot be determined at this time, as described on pages 4.8-39. Qualitative analysis of the GHG reduction benefits of 43 programs included in the 2040 General Plan to reduce GHG emissions is provided in Table 4.8-6 (pages 4.8-40 to 4.8-43).

The draft EIR also includes seven feasible mitigation measures that address the potentially significant GHG emissions impacts of the 2040 General Plan (draft EIR pages 4.8-45 to 4.8-47). Thus, the draft EIR correctly identifies and considers 2040 General Plan policies and programs in the GHG emissions analysis conducted in the draft EIR and correctly includes feasible and enforceable mitigation measures in the draft EIR analysis of GHG emissions.

The draft EIR concludes, in its post-mitigation significance conclusion for Impact 4.8-1 (Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment), that the 2040 General Plan policies and recommended mitigation measures would not be sufficient to reduce GHG emissions to the established 2030 and 2040 reduction target because the policies, while supportive of future GHG reductions, do not contain enough specificity for their numeric contribution to the established 2030 and 2040 targets to be quantified. The draft EIR explains that:

No additional feasible mitigation has been identified at this time beyond the mitigation measures identified above and the policies and implementation programs of the 2040 General Plan. Under the 2040 General Plan future GHG emissions in the county would be on a downward trajectory compatible with State plans, policies, and regulations that would also result in GHG reductions in the county (page 4.8-52).

In Impact 4.8-2 (Conflict with an Applicable Plan, Policy, or Regulation for the Purpose of Reducing the Emissions of GHGs) beginning on page 4.8-49, the draft EIR explains that the 2040 General Plan includes several implementation programs with a quantifiable effect on future GHG emissions, and a substantial number of additional programs and policies in every GHG emission sector that would result in further GHG emissions, although their effect on GHG emissions cannot be quantified at this program level of analysis. The 2040 General Plan policies and programs complement the main area of local government influence over GHG emissions, including renewable energy and energy efficiency, land use decisions, and local transportation infrastructure and policy. The available information that can be quantified demonstrates that future emissions in the county would be on a downward trajectory through 2050. Qualitative evidence shows that the many policies and programs that cannot be quantified at this time would lead to further GHG reductions and additional progress toward State GHG reduction targets. However, for these reasons and those described in Impact 4.8-1, the County cannot meaningfully quantify the effect of all its 2040 General Plan policies and programs on future GHG emissions, and therefore, cannot conclude, at this program level of analysis, that future GHG emissions in the unincorporated county under the 2040 General Plan would be sufficiently reduced to meet the State's 2030 or post-2030 targets.

MR-2 Master Response 2: 2040 General Plan Land Use Plan, Population Projections, and Buildout Assumptions

Several comments were submitted that requested additional information or clarification on the overall project description in the draft EIR. These comments fell under three key areas:

- **Project Description and Land Use Plan.** A number of comments were focused on a perceived lack of clarity regarding the description of the proposed project, including the 2040 General Plan's proposed land use designations.
- **Population and Growth Forecast Assumptions.** Comments were received requesting clarification on the methods used to develop population forecasts.
- **Buildout of the Land Use Plan.** Relative to the Public Review Draft 2040 General Plan and draft EIR, several comments questioned the development capacity assumptions used and where new development could occur under the 2040 General Plan. This response provides clarifying information related to population forecast data; number, compatibility, and density/intensity of the project's land use designations; differences between land use designations and area designations; and development capacity and growth assumptions.

To provide information relative to these comments, the following master response has been setup to answer these three main topic areas.

Relative to these topics, portions of the draft EIR rely on sources which are incorporated by reference, cited in the draft EIR, and identified in Section 8 *References* of the draft EIR, including:

- *Southern California Association of Governments. 2017. draft 2020 Regional Transportation Plan and Sustainable Communities Strategy: Local Input and Envisioning Process Data/Map Book for Unincorporated Ventura County.*
- *Ventura County. 2018 (July, November). 2040 General Plan Update Alternatives Report: Public Review Draft.*

Refer to Master Response 3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.

MR-2.A PROJECT DESCRIPTION AND LAND USE PLAN

Relative to this topic area, several comments on the draft EIR asked about the level of detail provided in the project description, the development of the 2040 General Plan Land Use Diagram, and the development and use of the land use designations proposed in the 2040 General Plan.

Project Description

Relative to the project description in the draft EIR, several comments requested that additional detail be provided.

The draft EIR contains a project description in Chapter 3. Chapter 3, “Project Description” provides an overview of the 2040 General Plan and the context for the environmental analysis in the draft EIR. Some of the comments on the draft EIR note that a specific aspect or policy in the 2040 General Plan is not documented or explained in Chapter 3 of the draft EIR. As the entire 2040 General Plan is the proposed project, and the plan itself contains hundreds of specific policies and programs, the 2040 General Plan provides the detailed information regarding what the project is proposing.

With respect to analysis and the level of detail provided in the draft EIR, the Governor’s Office of Planning and Research (OPR) General Plan Guidelines (2017) notes that the general plan EIR need not be as detailed as an EIR for the specific projects that will follow (State CEQA Guidelines Section 15146). Its level of detail should reflect the level contained in the plan or plan element being considered (*Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351). The State CEQA Guidelines further state that an EIR shall contain a project description that includes, in part, “A general description of the project’s technical, economic, and environmental characteristics...” (Section 15124(c)) and “should not supply extensive detail beyond that needed for evaluation of review” of environmental impacts (Section 15124(a)).

Section 15124 establishes the required components of the project description. These include:

- the precise location and boundaries of the project on regional and detailed maps; project objectives;

- a general description of the project’s technical, economic, and environmental characteristics; and
- a statement briefly describing the intended uses of the EIR.

These elements are all provided in Chapter 3, “Project Description,” in the draft EIR. As explained in detail below, the project description is complete, stable, and fully adequate as the bases of the draft EIR analysis.

The land use plan for the 2040 General Plan is located within its *Land Use and Community Character Element (LU)* and its Land Use Diagram. Portions of this element are described in the draft EIR Chapter 2, “Executive Summary” and Chapter 3, “Project Description.”

There is no requirement to list or describe individual policies proposed in the general plan as part of the project description (refer to the Section 15124 requirement for a “general description” of project elements). The complete draft 2040 General Plan was reviewed in preparation of the draft EIR. Note also that policies and programs relevant to each resource topic (specifically, those relevant to the impact analysis performed under the significance criteria for that topic) are identified throughout the draft EIR in Sections 4.1 through 4.17.

Each environmental resource topic section provided in the draft EIR (Sections 4.1 to 4.17) includes a subsection listing the 2040 General Plan policies and implementation programs related to that resource topic and, specifically, the thresholds of significance used to analyze the potential for significant impacts for that resource topic. In Chapter 4, “Approach to the Environmental Analysis,” the draft EIR explains that, “(m)any 2040 General Plan policies are intended to reduce the environmental impact of future development” and that the “relevant proposed policies in the 2040 General Plan are first applied” when analyzing its physical environmental impacts (page 4-3). In describing the types of physical environmental changes that could result from implementation of the 2040 General Plan, the draft EIR explains that, “(p)hysical changes could result from subsequent development pursuant to land use designations established in the 2040 General Plan, implementation of policies and implementation programs identified in the 2040 General Plan, and offsite and indirect development that is necessitated by the 2040 General Plan (e.g., new facilities, infrastructure upgrades) (page 4-3). The draft EIR explains that these, “types of actions that could result in physical changes to the environment under the 2040 General Plan are referred to collectively as ‘future development’” and are evaluated throughout the draft EIR (page 4-3).

2040 General Plan Land Use Diagram

As part of several comments on the project description in the draft EIR, comments asserted that the 2040 Land Use Diagram was too small to provide a clear picture of what was being proposed.

The 2040 General Plan’s Land Use Diagram, which is described in the draft EIR’s *Executive Summary* and *Project Description*, is set forth in the 2040 General Plan’s *Land Use and Community Character Element (LU)* at Figures 2-4 and 2-5. The draft EIR provides 2040 General Plan Land Use for the Northern County and Southern County in Figures 3-2a and 3-2b, respectively. These draft EIR figures are accompanied by Table 3-2 (pages 3-14 and 3-15), which provides a description of each land use designation and the total acreage and percentage of county land covered by each designation, and a narrative describing the types of future development that would occur countywide under implementation of the 2040 General

Plan land use designations (pages 3-14 to 3-19). The discussion notes that, “the land use diagram of the 2040 General Plan would concentrate future development of relatively higher intensity residential, commercial, mixed use, and industrial land uses within the Existing Community area designation (boundary) and the Urban area designation (boundary)” (page 3-14), and that the land use designations allowing such relatively higher intensity development would apply to approximately 1.2 percent of land in the unincorporated county (page 3-19). The draft EIR presents discussion of “relatively higher intensity” development in contrast with lower intensity development allowed under land use designations that apply to approximately 98 percent of the county’s land area.

Under State law, a general plan’s land use element must designate the proposed general distribution, location, and extent of land uses, and shall include a diagram or diagrams. (Gov. Code § 65302.) However, State law does not specify the scale at which such diagrams must be displayed. OPR’s General Plan Guidelines (2017) note in this regard:

“As a general rule, a diagram or diagrams, along with the general plan’s text, should be detailed enough so that all users of the plan can reach the same conclusion on the appropriate use of any parcel of land at any particular phase in the physical development of a city or a county. Decision makers should also be able to use a general plan and its diagram(s) to make day-to-day land use and infrastructure decisions that are consistent with the future physical development scheme of a city or a county. Given the long-term nature of a general plan, however, its diagram(s) and text should be general enough to allow a degree of flexibility in decision-making as times change.”

In the case of the Land Use Diagram for this project, the County relies on parcel-based mapping data which is depicted in the 2040 General Plan as oversized pages which show both the County’s entire jurisdiction as well as the south half of the county where the majority of development has historically occurred. These maps provide an adequate overview of lands covered by the 2040 General Plan’s *Rural, Agricultural, and Open Space* land use designations (located outside of Existing Community area boundaries) that dominate the unincorporated county. For the developed portions of the unincorporated county, larger scale (more detailed) maps are provided in Appendix A, *Area Plan and Existing Community Land Use Maps*, of the 2040 General Plan. Additionally, more detailed mapping will be available after the Ventura County Board of Supervisor’s (Board) adoption of the 2040 General Plan in the form of electronic Geographic Information System (GIS) maps which will be available on the County Resource Management Agency, Planning Division’s website and downloadable as PDFs.

Although the County’s General Plan is distinct from its zoning ordinances, the 2040 General Plan’s proposed land use designations in the 2040 General Plan are, by design, compatible with the County’s existing, underlying zoning categories as depicted in Table 2-1 in the *Land Use and Community Character Element (LU)*. This table illustrates the compatibility between the 2040 General Plan land use designations and the County’s existing zoning categories.

Proposed Land Use Designations

Relative to the draft EIR project description, another item noted in several comments related to the development and use of the 2040 General Plan land use designations.

The *Existing Community* and *Urban* land use designations included in the existing General Plan do not distinguish between residential, commercial, and industrial uses at the general

plan level, nor do they provide guidance on the location, density, and/or intensity allowed within these designated areas. For parcels with these land use designations, the County's existing General Plan largely defers the land use regulations addressing distribution, density, and intensity that are set forth in the County Area Plan and/or zoning ordinance applicable to the parcels. During the 2040 General Plan policy and land use alternatives process, the Planning Division determined that, in accordance with State law, the 2040 General Plan itself should more specifically describe the land uses and density/intensity standards for areas which, under the current General Plan, are designated as *Existing Community* or *Urban*.

The process for providing more detail in the 2040 General Plan's land use designations was documented in the Planning Division's staff report for the joint Board and Planning Commission work session on November 6, 2018, and discussed in greater detail within the project's Alternatives Report (Ventura County 2018). The methodology used applied new General Plan land use designations based on the existing zoning categories within the *Existing Community* and *Urban* land use designations in the existing General Plan. The methodology included the following steps:

1. Parcels designated as Urban or Existing Community in the existing General Plan were identified;
2. The current zoning categories for these parcels were identified; and
3. The 2040 General Plan's proposed land use designations (draft EIR, Table 3-1, pages 3-5 and 3-6) were applied to existing zoning designations pursuant to the project's zoning compatibility matrix (2040 General Plan, Table 2-1).

By increasing the specificity of the land use designations within the existing General Plan's *Existing Community* and *Urban* land use designations, the 2040 General Plan provides clearer direction than the existing General Plan on the development that is allowed to occur in these areas. The 2040 General Plan land use designations are described in detail in the draft EIR (starting at page 3-4). The 2040 General Plan includes 19 separate land use designations, 14 of which apply to areas designated as either *Existing Community* or *Urban* under the existing General Plan. However, no changes were made to the existing *Rural (RUR)*, *Agriculture (AG)*, or *Open Space (OS)* designations; the same areas are covered by each respective designation, and the allowed land uses and development densities remain identical for each. The existing State or Federal Facility also remains the same, though it has been renamed to *State, Federal, Other Public Lands (P)*. In addition, at the Board's request, a new *Parks and Recreation (PR)* designation has been added to the 2040 General Plan, which could only be applied to areas identified under 2040 General Plan Policy LU-1.2, *Parks and Recreational Facilities*, which states: "The County shall support the development of parks and recreation facilities within areas designated as Existing Community, Area Plans, or Areas of Interest." The Board did not direct staff to apply this new land use designation to any parcels as part of the 2040 General Plan update process.

Unlike the existing General Plan, the project's 19 land use designations now state development potential for all unincorporated areas. This is done by establishing a maximum residential density (stated as the maximum number of units allowed per acre) for designations allowing residential uses and a maximum intensity (expressed as a maximum percent of a lot that can be covered by buildings) for non-residential designations for mixed use, commercial, and industrial uses (draft EIR, Table 3-1, pages 3-5 and 3-6; 2040 General Plan, Table 2-2).

Maximum lot coverage, in keeping with the existing General Plan, was also maintained for appropriate designations. The final change was to update to the Land Use Diagram. The Land Use Diagram provides the geographic location of each land use designation, as described earlier in this response.

In the 2040 General Plan, Existing Community and Urban are maintained only as area designations, and not land use designations (draft EIR page 3-5). These area designations define the geographic boundaries of these areas and were created to maintain consistency with other County planning documents, such as the Guidelines for Orderly Development and Save Open Space & Agricultural Resources (SOAR). The boundaries of these area designations match the areas defined as Existing Community and Urban in the existing General Plan. The draft EIR includes a detailed discussion of the 2040 General Plan's relationship to other plans and regulations, including zoning, Area Plans, Guidelines for Orderly Development, Greenbelt Agreements, and SOAR, starting at page 3-7.

The 2040 General Plan, as proposed, does not change, nor will it require subsequent changes to, the County's existing zoning designations. Consequently, the geographic siting of future development will not change from the current opportunities provided in the existing General Plan. As noted above, at the Board's request, a new Parks and Recreation (PR) General Plan designation has been included in the 2040 General Plan, and was described in the draft EIR (page 3-5). While the designation was included, the Board did not direct staff to apply this new land use designation to any parcels as part of the 2040 General Plan update process. Prior to, or at the same time as, applying this designation as a future General Plan Amendment, the County will need to also develop new zoning classification(s) and development standards, which can be done as a separate action or as part of the consistency update to the Non-Coastal Zoning Ordinance that is planned following adoption of the 2040 General Plan. Placeholders for two new zoning classifications are shown on Table 2-1 in the *Land Use and Community Character Element (LU)*. These include a *Recreation (REC)* zoning classification (for use inside *Existing Communities, Area Plans or Areas of Interest*) and an *Open Space-Recreation (OS-REC)* zoning classification that could be used inside an area with a General Plan land use designation of *Open Space (OS)*.

The proposed land use designations are explained in the draft EIR in Chapter 3 under the heading "Land Use Diagram," and depicted on Figure 3-2a and Figure 2-3b (refer to pages 3-12 through 3-19 of the draft EIR). For clarification, page 2-6 in Chapter 2, "Executive Summary," states "the 2040 General Plan would establish 15 land use designations...within areas currently designated as Existing Community and Urban land use designations." However, commenters identified a discrepancy in Section 4.11, "Land Use and Planning" under Impact 4.11-1: Result in Physical Development That is Incompatible With Land Uses, Architectural Form Or Style, Site Design/Layout, Or Density/Parcel Sizes Within Existing Communities (beginning on page 4.11-18). Under this subsection of the draft EIR, it is inaccurately stated that the 2040 General Plan would establish "13 new land use designations" within areas currently designated as Existing Community and Urban. Furthermore, Table 4.11-1 Existing General Plan Land Use Designations and Proposed New General Plan Land Use Designations failed to include two of the 2040 General Plan's proposed land use designations which are proposed to occur only in current Existing Community or Urban land use designations. The discrepancy identified by commenters is corrected with the following revisions in draft EIR Section 4.11, "Land Use and Planning" (pages 4.11-19 to 4.11-20):

The 2040 General Plan would accommodate future development primarily within existing unincorporated communities. By making refinements to the Existing Community and Urban land use designations of the existing general plan, the 2040 General Plan would more clearly distinguish among land uses allowed within each designation and set forth maximum development density and intensity standards. Specifically, the 2040 General Plan would establish ~~43~~15 new land use designations that provide more detailed information on the types of land uses (e.g., commercial, industrial, residential) that would be allowable within areas currently designated as Existing Community and Urban (Table 4.11-1). The refined land use designations of the 2040 General Plan would result in future development that is compatible with the land uses, densities, and parcel sizes of existing communities.

Table 4.11-1 Existing General Plan Land Use Designations and Proposed New General Plan Land Use Designations

| Acronym | Land Use Designation | Max. Density/ Intensity | Min. Lot Size |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------|
| Existing General Plan Land Use Designations to Remain | | | |
| RUR | Rural | 1 du/2 ac (1 dwelling unit per each 2 acres) | 2 acres |
| AG | Agricultural | 1 du/40 ac | 40 acres |
| OS | Open Space | 1 du per parcel | 10 acres, or 20 acres if contiguous w/Agricultural |
| P | State or Federal Facility (updated to State, Federal, and Other Public Lands) | N/A | None |
| Proposed New Land Use Designations (to be applied only to areas with current Existing Community or Urban land use designations) | | | |
| ECU-R | ECU-Rural | 1 du/2 ac | 2 acres |
| ECU-A | ECU-Agricultural | 1 du/40 ac | 40 acres |
| ECU-OS | ECU-Open Space | 1 du per parcel | 10 acres, or 20 acres if contiguous w/Agricultural |
| VLDR | Very Low Density Residential | 3 du/ac | 10,000 SF |
| LDR | Low-Density Residential | 5 du/ac | 6,000 SF |
| MDR | Medium-Density Residential | 13 du/ac | 3,000 SF |
| RHD | Residential High-Density | 20 du/ac | No Minimum |
| RPD | Residential Planned Development | 20 du/ac | No Minimum |
| <u>CRPD</u> | <u>Coastal Residential Planned Development</u> | <u>36 du/ac</u> | <u>No Minimum</u> |
| <u>RB</u> | <u>Residential Beach</u> | <u>36 du/ac</u> | <u>No Minimum</u> |
| MU | Mixed Use | 20 du/ac; 60% coverage | No Minimum |
| C | Commercial | 60% coverage | No Minimum |
| CPD | Commercial Planned Development | 60% coverage | No Minimum |
| I | Industrial | 50% coverage | 10,000 SF |
| PR | Parks & Recreation | N/A | N/A |

MR-2.B POPULATION AND GROWTH FORECAST ASSUMPTIONS

Several comments on the draft EIR asked how the population and growth forecasts were developed as part of the 2040 General Plan process and their use in the draft EIR.

During the development of the project's Alternatives Report, which is described in the draft EIR (page 3-3), multiple population forecast data sources were evaluated, including those available from the Southern California Association of Governments (SCAG), California Department of Transportation (Caltrans), the California Department of Finance (DOF), and Woods & Poole, a national economic forecasting firm. As stated in the Planning Division's letter for the July 31, 2018, joint work session of the Board and Planning Commission, County staff and consultants considered these population forecasts, and the Board identified SCAG's draft 2020 Regional Transportation Plan and Sustainable Communities Strategy: Local Input and Envisioning Process Data/Map Book for Unincorporated Ventura County, as including the most appropriate data available for the preparation of the project's Alternatives Report, the 2040 General Plan, and the draft EIR.

The draft EIR's Table 3-3 identifies existing and anticipated growth projections for unincorporated Ventura County for population, employment, and households in 2015, 2020, 2030, and 2040 (page 3-20).

Historically, Existing Community and Urban designated parcels allow for higher-intensity residential development and a mixture of commercial and industrial uses and are located within the boundaries of Existing Community and Urban areas as these areas contain infrastructure and services most readily available to accommodate this type of growth. For example, at page 3-20 the draft EIR explains that between 2006 and 2018, an estimated 44 percent of new residential development occurred within areas designated as Existing *Community* or *Urban*. The remainder of the residential development during this period occurred in areas designated *Rural* (9 percent), *Agricultural* (23 percent), and *Open Space* (24 percent). Development trends in areas designated *Rural*, *Agriculture*, and *Open Space* are presumed to be based on numerous factors that vary from site to site, but include larger minimum lot sizes; lot coverage restrictions; limited access to water, utilities and infrastructure; fire code issues such as lack of secondary access; or a combination of these and other factors which can effectively prohibit or significantly increase the cost of new development in these areas.

MR-2.C BUILDOUT OF THE LAND USE PLAN

Several comments on the draft EIR asked whether the 2040 General Plan proposes an increase in development density/intensity, how the buildout for the 2040 General Plan was estimated, and expressed confusion over the use of the various "buildout" terms used in the draft EIR. These topics are addressed in the following paragraphs.

Development Potential under the 2040 General Plan and existing General Plan
Some comments on the draft EIR asked whether the 2040 General Plan would allow densities and intensities higher than those allowed today under the existing General Plan. The answer is "no." By design, the 2040 General Plan does not result in an increase in the density or intensity allowed on any parcel. This is described in the draft EIR in multiple places (e.g., pages 3-4 to 3-6; page 4-2).

First, parcels currently designated Rural (RUR), Open Space (OS), or Agriculture (AG) in the existing General Plan were not changed relative to location, density, or intensity in the 2040 General Plan. Second, for areas with existing General Plan designations of Existing Community and Urban, these lands have been assigned new General Plan land use designations that are consistent with the existing zoning designation of each parcel.

Although the County's General Plan is distinct from its zoning ordinances, the 2040 General Plan's proposed land use designations are compatible with the County's existing, underlying zoning categories as depicted by Table 2-1 in the Land Use and Community Character Element (LU). This table illustrates the compatibility relationship between the 2040 General Plan land use designations and the County's adopted zoning categories. The General Plan and zoning ordinances set forth separate but complementary land use regulations in that future discretionary development proposals will need to be consistent with the 2040 General Plan designation for the property as well as the requirements of the underlying zoning district.

Calculating Projected Buildout

Comments received on the draft EIR also requested clarification on the source of growth projections used and how these were developed. Draft EIR Chapter 4, "Environmental Impact Analysis," describes the draft EIR's approach to the analysis of environmental impacts of 2040 General Plan implementation, including the growth projections and buildout assumptions used in the analysis (pages 4-1 to 4-4). The factors and assumptions considered in the draft EIR impact analysis include:

- projections for growth in population, households, and jobs by 2040;
- buildout of the plan area, even though buildout is not anticipated to occur within the planning horizon of 2040;
- general plan implementation does not itself result in the growth of population, households, employment, or traffic, but would accommodate such growth;
- the 2040 General Plan encourages urban development in communities where housing, commercial uses, and employment are already concentrated, but does not discourage or prohibit new development in rural or less developed areas; and
- existing, local regulations address the location, type, and intensity of land use development patterns in the county, including the Guidelines for Orderly Development, voluntary greenbelt agreements among the County and several cities, and the County's SOAR initiative (which is part of the General Plan).

Additional description and context regarding the growth projections and buildout assumptions used in the draft EIR analysis are provided below.

As presented in the draft EIR, growth projections used to prepare the 2040 General Plan were estimated for 2020, 2030, and 2040 using county-specific demographic projections prepared by Southern California Association of Governments (SCAG) for the draft 2020 Regional Transportation Plan and Sustainable Communities Strategy (SCAG 2017). When discussing the future of the county, it is important to keep in mind the small amount of change in population that is projected for the unincorporated county by 2040. Between 2015 and 2040,

the unincorporated county is estimated to grow by 4,099 persons or 1,281 households (see Table 3-3 in draft EIR, page 3-20, and draft EIR page 4-1). (SCAG 2017)

In the draft EIR, future development under the proposed project is referred to using the SCAG growth projections and the term “buildout.” (pages 4-1 and 4-2). Several comments on the draft EIR stated confusion over how growth projections and buildout assumptions were applied in the draft EIR and whether either was adequate for the environmental analysis conducted.

The following are key terms that have been used to describe future development in the unincorporated county.

- **Holding Capacity.** At the April 17, 2018, Board and Planning Commission joint work session, the Board directed staff to evaluate development potential based on existing land use designations. To do this, the County evaluated the holding capacity or theoretical buildout of all parcels in the unincorporated county at their maximum allowed density or intensity pursuant to the existing General Plan and applicable zoning ordinance. This analysis was completed by multiplying the acres of vacant and underutilized lands by the maximum density and intensity for each land use/zone designation. This term, and resulting analysis, were used in the Alternatives Report (Chapters 4 and 5) as a first step to ascertain if the existing General Plan authorized adequate development to support the unincorporated county’s projected population growth. This analysis showed that the County’s current land use planning could support projected growth and supports the determination that no changes to the General Plan’s existing land use designations, and no increases to the allowable density or intensity of development within such existing land use designations, are needed in the 2040 General Plan to support projected population growth.
- **Development Potential.** As a next step in the Alternatives Report process conducted by the Planning Division in 2018, development potential was calculated. Development potential is the amount of development that could occur in the unincorporated county based on buildout under adopted land use plans and corresponding zoning on lands that are vacant or underutilized, and accounting for constraints on future development (e.g. physical and infrastructure).
- **Buildout.** Buildout (as used in the draft EIR, see page 4-2) is synonymous with the term Development Potential as used in the Alternatives Report. This looks at the development that could occur under the land use designations in the 2040 General Plan, which, as explained above, are consistent with the development allowed under the existing General Plan. The term “buildout” describes the potential development of all appropriately designated lands in the unincorporated county, even though much of this development would occur after 2040. By using this buildout assessment, the draft EIR accounts for all potential physical impacts. Analysis based on buildout reflects the understanding that given the small amount of growth anticipated by 2040, the location of the growth is very much dependent on individual landowner choice and can be on a parcel-by-parcel development as opposed to larger subdivisions. This approach recognizes the potential for development to be distributed throughout the county based on several factors. As growth can occur in the appropriately designated areas throughout the unincorporated county, the buildout approach allows for a conservative, worst-case assessment of environmental impacts where the impact is based on the location of future development in relation to the location of physical environmental resources.

- **Growth Projections.** Some aspects of the draft EIR are directly tied to the growth projections contained in the SCAG draft 2020 Regional Transportation Plan and Sustainable Communities Strategy (SCAG 2017). For instance, the Ventura County Transportation Commission (VCTC) traffic model that was used to calculate vehicle miles traveled (VMT) in Section 4.16 of the draft EIR incorporates the SCAG growth projections to 2040. The growth projections approach allows for a reasonably foreseeable analysis of future environmental changes where the impact is based on the amount of future growth that would be accommodated within the approximately 20-year planning period of the 2040 General Plan.
- **Use of Buildout and Growth Projections in the Draft EIR Impact Analysis.** The draft EIR uses the buildout approach for the analysis of impacts to aesthetics (Section 4.1), agricultural and forestry resources (Section 4.2), biological resources (Section 4.4.), cultural, tribal cultural, and paleontological resources (Section 4.5), geologic hazards (Section 4.7), hazards, hazardous materials, and wildfire (Section 4.9), hydrology and water quality (Section 4.10), land use and planning (Section 4.11), mineral and petroleum resources (Section 4.12), population and housing (Section 4.14), and public services and recreation (Section 4.15). Draft EIR analyses based on future growth projections under implementation of the 2040 General Plan include estimates of air quality emissions in Section 4.3, energy consumption estimates in Section 4.6, greenhouse gas emissions projections in Section 4.8, future traffic noise levels in Section 4.13, vehicle miles traveled in Section 4.16, and future demand for water in Section 4.17. Some draft EIR sections use both approaches depending the threshold of significance and impact analysis conducted. For example, Section 4.3, “Air Quality” uses the future growth projections to estimate future construction and operational air quality emissions in Impact 4.3-2 (starting at page 4.3-12) and Impact 4.3-3 (starting at page 4.3-17), while the analysis of exposure of sensitive receptors to substantial pollutant concentrations in Impact 4.3-5 (starting at page 4.3-20) uses the buildout approach to provide a conservative, worst-case analysis of locations where future development under the 2040 General Plan would be allowed that could result in exposure of sensitive receptors to substantial increases in toxic air contaminant emissions.

MR-3 Master Response 3: 2020 Regional Housing Needs Assessment and 2021-2029 Housing Element Update

Several commenters expressed concern about accurately developing and analyzing a comprehensive update to the Ventura County General Plan (2040 General Plan) with respect to projected housing needs and the identification of sufficient sites and zoning before the 2020 Regional Housing Needs Assessment (RHNA) allocation and subsequent Housing Element Update. Commenters assert that the growth projections of the draft EIR are erroneous because they are “at odds” with the forthcoming housing numbers that will be allocated to the County at a future date through the RHNA process. Comments state that the County “must table consideration” of the 2040 General Plan until it can include the 6th cycle Housing Element Update (“2021-2029 Housing Element Update”), and that the County should then revise the draft EIR to reflect analysis of the 2021-2029 Housing Element as part of the 2040 General Plan.

Comments also assert that preparing a draft EIR for the 2040 General Plan results in improper CEQA piecemealing and project segmentation because the 2040 General Plan includes the County’s existing adopted Housing Element for the 5th cycle planning period from October

2013 to October 2021 (2014-2021 Housing Element) and does not include the future Housing Element Update for the 6th cycle planning period from October 2021 to October 2029. Comments also assert that the draft EIR analysis of consistency with the adopted 5th cycle RHNA is conclusory and not supported by substantial evidence.

To address these comments, this master response provides an overview of State RHNA and Housing Element requirements, describes the County's existing 2014-2021 Housing Element prepared for the 5th cycle planning period and the status of the ongoing 6th cycle RHNA Allocation Plan, and provides an overview of the process, substance, and timing of the County's future 2021-2029 Housing Element Update. This master response explains that the 2040 General Plan appropriately includes the County's existing 2014-2021 Housing Element, and then explains that State law allows the 2040 General Plan to be adopted independent of the 2021-2029 Housing Element Update.

The master response concludes by explaining that the draft EIR for the 2040 General Plan did not violate CEQA by not including the future 2021-2029 Housing Element Update as part of the draft EIR project description, nor did the County improperly engage in piecemealing or project segmentation in the draft EIR by not including the future 2021-2029 Housing Element Update as part of the draft EIR project description. This master response also explains that the draft EIR was not required to analyze consistency with the draft RHNA allocation plan for the 6th cycle and that it provided an adequate analysis of the consistency of the 2040 General Plan with RHNA requirements of State Housing Element law. The population and growth forecast assumptions used in the 2040 General Plan and the draft EIR are described in Master Response MR-2.

MR-3.A OVERVIEW OF THE REGIONAL HOUSING NEEDS ASSESSMENT AND STATE HOUSING ELEMENT LAW

All cities and counties in California are required to adequately plan to meet the housing needs of everyone in the community. Local governments meet their housing need requirements by adopting housing plans as part of their general plans. The law mandating that housing be included as an element of each jurisdiction's general plan is known as "Housing Element law" (Gov. Code, §§ 65580-65589.11). A Housing Element must be revised periodically on a four-, five-, or eight-year cycle, depending on various factors (Gov. Code, § 65588).

This process begins with the California Department of Housing and Community Development (HCD) making a determination of the housing needs for each region of the State, called the Regional Housing Needs Determination (RHND). The RHND is determined in coordination with the region's planning body (known as a "council of governments" or COG). Each COG is then tasked with developing a methodology for allocating a portion of the RHND to each of the cities and counties within that region so that every jurisdiction is accommodating its "fair share" of the region's housing needs. This process of allocating housing needs is known as the Regional Housing Needs Assessment (RHNA). The Southern California Association of Governments (SCAG), the designated COG, develops a RHNA allocation plan for several Southern California counties, including Ventura County. This process is conducted by SCAG every eight (8) years.

Every jurisdiction must plan for its RHNA allocation in the Housing Element of its general plan by ensuring there are enough sites available with suitable zoning to accommodate their RHNA

allocation. Jurisdictions are required to plan for their RHNA allocation and there are penalties for not doing so, but there are no direct penalties for not building enough housing.

Pursuant to State law the Housing Element must, among other requirements:

- Identify, analyze, and make adequate provision for the existing and projected housing needs for all economic segments of the community;
- Include a statement of goals, policies, quantified objectives, financial resources, and scheduled programs to preserve, improve and develop housing;
- Identify adequate sites that are suitable and available for housing development within the housing cycle and sufficient to meet the county's fair share of the regional housing need at all income levels; and
- Be submitted to HCD for review and certification for state law compliance.

MR-3.B ADOPTED 5TH CYCLE RHNA ALLOCATION PLAN FOR THE COUNTY'S EXISTING 2014-2021 HOUSING ELEMENT

The current (5th cycle) RHNA allocation plan for the SCAG region was adopted by SCAG in October 2012 and covers the Housing Element planning period October 2013 to October 2021. The County's existing adopted Housing Element is certified by HCD for the planning period of October 2013 to October 2021.

MR-3.C STATUS OF ONGOING 6TH CYCLE RHNA ALLOCATION PLAN

On March 5, 2020, the SCAG Regional Council adopted the final RHNA allocation methodology. SCAG's RHNA Subcommittee is scheduled to conduct appeals hearings in mid-August 2020. The appeals hearings could potentially result in a redistribution of housing units among jurisdictions. Therefore, the County's RHNA numbers may change. The County's RHNA allocation for the 6th cycle will not be final until the final 6th cycle RHNA allocation plan is adopted by SCAG anticipated in October 2020. Because the 6th cycle is in process and in draft, and the 2040 General Plan process has been ongoing since 2015, it would not be possible to base the 2040 General Plan analysis on allocations that were not developed at the time the 2040 General Plan analysis began or that have not been finalized and adopted by HCD. As such, consistent with the requirements of CEQA, the 2040 General Plan properly relies upon data and information that was available and substantiated at the time the Notice of Preparation (NOP) for the 2040 General Plan was distributed.

MR-3.D OVERVIEW OF THE COUNTY'S FUTURE HOUSING ELEMENT UPDATE

The statutory due date to adopt the 6th Cycle 2021-2029 Housing Element Update is October 15, 2021, for jurisdictions located within the SCAG region, including the unincorporated county. A jurisdiction that fails to adopt a Housing Element within 120 days (approximately 4 months) of this deadline must revise its Housing Element not less than every four years pursuant to Government Code section 65588(e)(4). County Planning staff initiated the process of conducting the housing needs analysis for the 6th Cycle Housing Element in Winter of 2019

and is planning to solicit public input during Summer 2020. As part of the 2021-2029 Housing Element Update, the goals, policies, and objectives and various accompanying analyses and text will be reviewed in the context of the other elements of the General Plan such as the land use, circulation, and open space elements (Gov. Code, § 65300.5). This will include a discussion of how internal consistency within the General Plan has been achieved and how internal consistency will be maintained throughout the planning period (Gov. Code, § 65583(c)(8)). If appropriate, other General Plan elements may need to be updated concurrently with the Housing Element. The draft Housing Element will be presented to County Board of Supervisors by the end of 2020 before it is submitted to HCD for its mandated preliminary review. The public adoption hearings for the final Housing Element are tentatively scheduled for Fall 2021, approximately one year after anticipated public adoption hearings for the 2040 General Plan in Fall 2020.

MR-3.E STATE LAW ALLOWS THE COUNTY TO PREPARE THE 2040 GENERAL PLAN INDEPENDENT OF THE 6TH CYCLE HOUSING ELEMENT

The Housing Element is one of nine State-required components (Gov. Code, § 65302) of every jurisdiction's general plan. Unlike the other elements, the Housing Element is the only element with a separate statutory scheme (Gov. Code, §§ 65580-65589.11) which delineates its contents and the process for adoption in detail and requires certification by the State Department of Housing and Community Development (HCD). A Housing Element must be revised periodically on a four-, five-, or eight-year cycle, depending on various factors (Gov. Code, § 65588). Because of these mandated schedules, cities and counties across the State often update Housing Elements separately from updates to other elements of their general plans. The current Housing Element is certified by HCD for the planning period of October 2013 to October 2021. The next Housing Element planning period will be October 2021 to October 2029. Therefore, the current 2014-2021 Housing Element will remain effective for approximately the first year of the 2040 General Plan and all housing development applications and programs must rely upon the implementation requirements of the 2014-2021 Housing Element.

The Board of Supervisors (Board) commenced scoping exercises for the 2040 General Plan in 2015 as the existing General Plan has a planning horizon through 2020. In December 2015, the Board approved a consultant contract and scope of services for the preparation of the 2040 General Plan with an anticipated adoption date of March 2020, which has since been revised to Fall 2020. The 2040 General Plan scope of work specified that the Housing Element update would be a concurrent task to be completed based on the availability of data from the State's Department of Housing and Community Development (HCD) agency and State Housing Element certification schedule. On September 22, 2015, the Board approved the Ventura County General Plan Update Recommended Work Program which noted that the 2014-2021 Housing Element would likely require updating shortly after the completion of the comprehensive General Plan Update. Additionally, the Work Program noted that the Housing Element update should be addressed separately due to the scheduled availability of Regional Housing Needs Allocation (RHNA) data and the timing of the Housing Element certification process being outside of the County's control. Further, the Work Program indicated that the availability of RHNA numbers would need to be followed by a Housing Element project-related work effort including the need to conduct community engagement; draft housing goals, policies and programs; complete County decision-maker review; and submit the Housing Element for the required HCD preliminary review. Delaying the comprehensive update of the General Plan to accommodate the Housing Element update could have resulted in a planning gap of up to 4

years from the sunset of the planning horizon of the existing General Plan in 2020 to the adoption of the 2040 General Plan in 2024. In order to maintain a technically accurate General Plan with current planning information and projections (e.g., within the planning horizon of the document) the County initiated the General Plan update in 2015, thus enabling adoption of a General Plan with a planning horizon of 2020 through 2040.

Government Code section 65583(c)(8) requires that the Housing Element describe the means by which consistency will be achieved with other general plan elements. Additionally, the Housing Element must also meet State RHNA obligations (Gov. Code, § 65583) and meet other State requirements to obtain HCD certification. Every jurisdiction must plan for its RHNA allocation by ensuring there are enough sites available with suitable zoning to accommodate their RHNA allocation. Depending upon the final RHNA allocation, other elements in the 2040 General Plan may need to be updated subsequent to the anticipated 2040 General Plan adoption in Fall 2020 to provide adequate sites to meet the final RHNA allocation for the 6th cycle and maintain internal consistency between the 2021-2029 Housing Element and the 2040 General Plan. For this reason, State law provides local agencies the ability to amend their general plans up to four times per year (Gov. Code, § 65358(b)). Therefore, it is anticipated and appropriate that the 2021-2029 Housing Element Update may require amendments to the 2040 General Plan after it is adopted, subject to public engagement and environmental review under CEQA.

The remaining residential development potential as assessed in Table 3-22 in the 2040 General Plan Background Report shows capacity for approximately 28,228 units. This number far exceeds the current 2014-2021 Housing Element and associated 1,015-unit RHNA obligation as well as the draft 1,247-unit target distributed to the County through the forthcoming RHNA allocation (SCAG 2020). However, the historical construction completion averages are far lower than the theoretical capacity provided in the Background Report. The County reports on annual residential building permit trends in the General Plan Annual Progress Report (Ventura County 2020). To meet the State housing targets, a greater diversity of units to accommodate a wider range of residential housing demand through the next Housing Element planning period for 2021-2029 may be needed, especially in the County's existing communities where infrastructure to support the development of additional density exists. The supply of land to support the full range of residential development that will meet new stringent State requirements may require creating more land use opportunities for multi-family units as well as creating programs that help facilitate housing types geared towards lower-income households such as accessory dwelling units and farmworker dwelling units. It is unknown at this time if the County will need to modify the 2040 General Plan land uses to accommodate the RHNA allocation.

MR-3.F CEQA DEFINITION OF A PROJECT AND CEQA REQUIREMENTS FOR A PROJECT DESCRIPTION

For purposes of CEQA, State CEQA Guidelines section 15378 defines a “project” as follows:

(a) “Project” means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following:

(1) An activity directly undertaken by any public agency including but not limited to...the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700.

Because the Guidelines define a project as the “whole of an action” that may result in either direct or indirect physical changes in the environment, it is forbidden under CEQA to piecemeal or segment a project into two or more pieces and evaluate each piece in separate environmental documents.

The State CEQA Guidelines further state that an EIR shall contain a project description that includes, in part, “A general description of the project’s technical, economic, and environmental characteristics...” (§ 15124(c)) and “should not supply extensive detail beyond that needed for evaluation of review” of environmental impacts (§ 15124(a)).

MR-3.G THE DRAFT EIR FOR THE 2040 GENERAL PLAN APPROPRIATELY DESCRIBED THE COUNTY’S ADOPTED HOUSING ELEMENT AND ADEQUATELY ANALYZED CONFLICTS WITH RHNA REQUIREMENTS

A description of the 2040 General Plan is provided in Chapter 3, Project Description, of the draft EIR, which explains that the, “2040 General Plan integrates the County’s current 2014-2021 Housing Element by formatting the document to be consistent with the 2040 General Plan” (p. 3-6). The draft EIR project description also includes a discussion of the County’s General Plan Update process for preparing the 2040 General Plan that commenced in 2015 and which included the preparation of an Alternatives Report in 2018 that led to the identification of a Preferred Land Use Alternative for the 2040 General Plan. It explains that the Preferred Land Use Alternative, “consists of two parts: Proposed 2040 General Plan Land Use Designations and the Regional Housing Needs Allocation (RHNA)” (p. 3-6). It further explains that the RHNA component of the preferred alternative “will be addressed as part of the Housing Element that will occur subsequent to the adoption of the 2040 General Plan” because RHNA allocations and Housing Element updates follow, “a planning cycle that is distinct from the 2040 General Plan” (p. 3-7).

Section 4.11 of the draft EIR analyzes the land use and planning impacts of the 2040 General Plan, including whether 2040 General Plan implementation would cause an environmental impact due to a conflict with RHNA requirements of State housing law (Impact 4.11-3, pp. 4.11-22 to 4.1-23). The draft EIR explains that the 2040 General Plan complies with RHNA requirements because the “current 2014-2021 Housing Element was certified by HCD on December 2013, which means that the County provided evidence of sufficient capacity to meet State requirements to accommodate housing needs” (p. 4.11-23). The draft EIR did not analyze the 2040 General Plan for conflicts with the County’s draft RHNA allocation for the 6th cycle for several reasons: it is not final and subject to change until its anticipated adoption in October 2020; a draft RHNA allocation was not publicly available on or before January 13, 2020, when the draft EIR was released for public review; and a draft RHNA allocation was not publicly available when the County commenced preparation of the draft EIR environmental analysis after publishing the Notice of Preparation on January 14, 2019.

The draft EIR also explains that RHNA and State housing law mandate periodic updates of general plan Housing Elements and that future development under the 2040 General Plan would be consistent with the RHNA for future Housing Element update cycles (p. 4.11-22).

Therefore, the draft EIR concludes that implementation of the 2040 General Plan would not cause a significant environmental impact due to a conflict with RHNA requirements.

For the reasons stated above and throughout this master response, the future 2021-2029 Housing Element Update is not part of the “whole of the action” of the 2040 General Plan. For one, State law does not prevent the County or any local jurisdiction from updating its general plan independent of its Housing Element. In addition, the County explained in the draft EIR project description that the 2040 General Plan included the existing 2014-2021 Housing Element and that the 2021-2029 Housing Element Update would be prepared subsequent to adoption of the 2040 General Plan. Moreover, State law requires the County to prepare a Housing Element update according to substantive, procedural, and temporal requirements that are completely separate from the County’s process for preparing the 2040 General Plan. The requirement to prepare the 2021-2029 Housing Element Update is not a consequence of the County’s decision and process to prepare the 2040 General Plan.

Therefore, for the above reasons, the draft EIR project description correctly described the “whole of the action” for the 2040 General Plan by describing the existing 2014-2021 Housing Element as one of the characteristics of the project analyzed in the draft EIR. As a result, not including the 2021-2029 Housing Element Update in the draft EIR project description and analysis does not violate CEQA’s prohibition against piecemealing or project segmentation. In addition, the draft EIR provides substantial evidence supporting its conclusion that implementation of the 2040 General Plan would not cause a significant environmental impact due to a conflict with RHNA requirements.

MR-4 Master Response 4: 2040 General Plan Oil and Gas Policies

Several commenters addressed the effects of oil and gas extraction in the County. Oil and gas extraction is an area of known controversy. On April 23, 2019, and June 4, 2019, the County Board of Supervisors (Board) approved and then extended an interim urgency ordinance prohibiting County approval of new oil wells that would utilize steam injection to extract shallow oil, and the re-drilling of such existing wells, on a portion of the Oxnard Plain overlying the Fox Canyon aquifer. This interim urgency ordinance was extended by the Board on November 5, 2019 and will remain in effect until December 7, 2020 unless terminated sooner by the Board. On September 10, 2019, the Board directed County staff to amend the Non-Coastal Zoning Ordinance and Coastal Zoning Ordinance to require discretionary approval of new oil and gas development under antiquated permits and require that oil and gas development standards from these ordinances apply to antiquated permits. Approval of oil and gas development permits in the County is also an area of known controversy. Between October 2015 and March 2020, approximately eight public hearings to consider de novo appeals of oil and gas development permit-related matters have been conducted by the Board.

From the outset of the General Plan Update project in 2016, the County has received a range of public comments recommending policies in support of, as well as and opposed to, oil and gas extraction in the 2040 General Plan. On January 14, 2019, a notice of preparation (NOP) for the draft EIR was circulated to the public in accordance with the State CEQA Guidelines, and a public scoping meeting was held on January 30, 2019. Key concerns and issues that were expressed during the scoping process included the effects of continued oil and gas extraction including secondary effects related to climate change, air quality, water quality, water supply, traffic, noise, odors, aesthetics, and hazards. The County received a total of 27

NOP comment letters. Of this total, 14 comment letters (52 percent), expressed such concerns related to continued oil and gas extraction. Finally, of the 273 comment letters received on the draft EIR, 83 (30 percent), addressed the topic of oil and gas extraction.

The Introduction to the draft EIR (page 1-4) clearly identifies the effects of continued oil and gas extraction to be a known area of controversy (including secondary effects related to climate change, air quality, water quality, water supply, traffic, noise, odors, aesthetics, and hazards). The range of issues related to continued oil and gas extraction were clearly addressed within the relevant environmental resource sections of the draft EIR (Sections 4.1 through 4.17), and most comprehensively in Section 4.12 (Mineral and Petroleum Resources) commencing on page 4.12-1. The following sections of this master response address groups of comments that express similar concerns related to the County's authority to regulate oil and gas development, antiquated permits and takings, underlying motives of the proposed oil and gas policies, mitigation measures and the role of the Board of Supervisors, applicability of reference studies for oil and gas operations, oil and gas flaring, pipeline requirements, new oil well setbacks (e.g. buffers), directional drilling, phasing out oil and gas operations, effects of proposed oil and gas policies outside of the 2040 General Plan planning area, and oil reserves.

MR-4.A COUNTY'S AUTHORITY TO REGULATE OIL AND GAS DEVELOPMENT

Some comments regard the County's legal authority to adopt and implement new General Plan policies regulating oil and gas operations. Other comments request that the County adopt additional, more stringent general plan policies to, among other things: prohibit new oil and gas development and phase out existing development; impose additional regulations on oil and gas operations; and prohibit specific activities such as hydraulic fracturing. These issues are addressed as follows.

The County's authority to allow, prohibit or otherwise regulate all land use matters, including oil and gas development, is derived from its "police power" set forth in Article XI, Section 7 of the California Constitution, which states: "A county or city may make and enforce within its limits all local police, sanitary, and other ordinances and regulations not in conflict with general laws." Within the unincorporated area of Ventura County, the County's general authority to regulate land uses, including oil and gas development, is, subject to general State laws, as broad as the State's authority to do so. (See also Gov. Code, § 65804 [expressing California Legislature's intent that counties maintain the maximum control over zoning matters].) However, once oil and gas development is constructed in accordance with County permitting and land use rules, the State preempts and overrides the County's authority to regulate certain aspects of the established oil and gas development. In this regard, given the State's pervasive regulation of subsurface wells and operations, the State has exclusive jurisdiction in the down-hole/subsurface realm, leaving the County unable to directly regulate activities such as well casing construction or hydraulic fracturing and other well stimulation treatments. (Pub. Res. Code, §§ 3106, 3150-3690; Cal. Code Regs., tit. 14, § 1712 et seq.; 59 Ops. Cal. Atty. Gen. 461 (1976).) In addition, the California Geologic Energy Management Division (CalGEM) is currently developing new regulations for surface aspects of oil and gas development to strengthen protections for public health and safety. Depending on the specific nature and language of these regulations, if and when adopted, they could preempt the County's authority to implement regulations addressing the same subject matter.

Commenters also claim the County is preempted from adopting land use regulations that prohibit or discourage the use of flares to dispose of gas produced during oil production based on the fact the Ventura County Air Pollution Control District regulates flares that are installed in accordance with a County land use entitlement. This claim lacks merit. The County has for decades discouraged the use of flares under the authority of its constitutional police powers. (See, e.g., Ventura County Non-Coastal Zoning Ordinance, § 8107-5.5.7.) The fact that a regulatory agency, such as VCAPCD, regulates equipment, such as flares, installed at an oil production facility does not preempt the County's authority to prohibit or discourage the equipment's installation and use in the first instance.

Based on the foregoing, in general, and subject to the vested rights and takings issues that are addressed separately below, the County has the legal authority to: (a) determine whether and where to authorize oil and gas development to occur; and (b) regulate surface (but not subsurface) aspects of oil and gas operations to the extent not preempted by State or federal law. The County has legal authority to adopt and implement General Plan Policies COS-7.2, COS-7.7, and COS-7.8, all of which regulate surface aspects of new oil and gas operations in regulatory areas that are not preempted by State or federal law.

MR-4.B ANTIQUATED PERMITS AND TAKINGS

Comments ask about the County's legal authority to adopt and apply new general plan policies related to oil and gas operations conducted pursuant to "antiquated" County oil and gas permits. Comments also suggest that the County's application of 2040 General Plan Policies COS-7.2, COS-7.7, and COS-7.8 would impair vested rights and constitute takings of private property without just compensation in violation of the U.S. Constitution. These issues are addressed below.

The oil and gas exploration and production land use has been subject to a discretionary permitting requirement since adoption of the County's first zoning ordinance in 1947. Over time, the County's zoning ordinances and standard permits have become more stringent and detailed in their regulation of this land use. From 1947 through approximately 1966, the County granted discretionary "special use permits" (the predecessor to the County's current "conditional use permits") authorizing oil and gas exploration and production. The oil and gas permits granted by the County during this era are referred to as "antiquated permits." Antiquated permits typically describe in very general terms the oil and gas-related activities and structures that are authorized within permit areas that are often large. The permits typically do not state the maximum number or exact location of allowable wells or other structures, nor do they contain expiration dates (i.e., dates by which the land use must end unless extended by the County). Because antiquated permits were granted before enactment of the California Environmental Quality Act (CEQA) in 1970, none of the projects underwent CEQA review prior to initial permitting.

Vested rights, which constitute a property interest, are based on a permittee's reasonable reliance on a government permit or approval describing a specific development project. Once a permittee has obtained the permit or approval and has performed substantial work on the development, the government is estopped (i.e., prohibited) from preventing completion of the work pursuant to subsequently enacted legislation. The seminal California case on vested rights is *Avco Community Developers, Inc. v. South Coast Regional Commission* (1976) 17 Cal.3d 785. A permittee has the legal burden of establishing the existence and scope of vested

rights. If a permittee establishes a vested right, the government may not, by virtue of a change in the laws, prohibit or impair the construction or use that is specifically authorized by the permit or approval, unless the development presents a threat of harm, danger, menace or nuisance. (*Davidson v. County of San Diego* (1996) 49 Cal.App.3d 639; *Stewart Enterprises, Inc. v City of Oakland* (2016) 248 Cal.App.4th 410.)

Holders of typical County antiquated permits generally do not have vested rights to engage in new oil and gas development based solely on the original antiquated permits. This is because of the typical antiquated permits' lack of specificity regarding the scope and composition of the authorized development. In addition, given that the antiquated permits were granted between approximately 53 and 72 years ago, permittees have had decades to build out the oil and gas projects under the initial approvals. To the extent antiquated permits confer any vested rights to construct new development, which the County disputes, such vested rights have likely lapsed through an unreasonable delay in their holders' completing the initially approved projects. (See *Lakeview Development Corp. v. City of South Lake Tahoe* (9th Cir. 1990) 915 F.2d 1290, 1298-1299.)

Even where a permittee possesses vested rights to develop and operate oil and gas facilities pursuant to a County permit, antiquated or otherwise, the County possesses constitutional land use authority to regulate the subject development and operations (subject to State and federal preemption), including by requiring compliance with General Plan policies and other County land use standards, so long as the vested rights in the permit are not impaired. (*Donlan v. Weaver* (1981) 118 Cal.App.3d 675, 684.) In general, a vested right is impaired if the new governmental regulation would prevent the completion of construction or use of facilities that are specifically described and authorized in an existing County permit. Vested rights claims are fact-specific and determined on a case-by-case basis.

2040 General Plan Policies COS-7.2, COS-7.7, and COS-7.8 would likely not implicate vested rights at all, let alone impair them, because the policies would only apply to new discretionary oil and gas wells, as opposed to existing wells, and thus the policies would not prevent the completion of construction or use of facilities that are specifically authorized by an existing County permit. If a vested right to construct new wells were nonetheless established by a permittee, and if any of the proposed 2040 General Plan policies were found to impair those vested rights, the 2040 General Plan policy or policies could not be applied to the new wells; the 2040 General Plan policy or policies, however, would remain in place. Property owners could potentially claim that 2040 General Plan Policy COS-7.2, COS-7.7, or COS-7.8, when applied to a specific project, constitutes a "regulatory taking" in violation of the Fifth Amendment to the U.S. Constitution. A regulatory taking occurs when a government regulation becomes so onerous that it has the practical effect of a direct appropriation of private property without just compensation. (*Lingle v. Chevron U.S.A.* (2005) 544 U.S. 528, 538.) A complex set of factors is applied on a case-by-case basis to determine whether a regulatory taking has occurred including the regulation's economic effect on the property owner, the extent to which the regulation interferes with reasonable investment-backed expectations, and the character of the government action. (*Penn Central Transp. Co. v. New York City* (1978) 438 U.S. 104, 124.)

The Fifth Amendment is often misconstrued as a prohibition against any regulation that decreases property value or interferes with an owner's preferred land use. But as the Second District Court of Appeal, Division Six, has stated, the "Fifth Amendment is not a panacea for less-than-perfect investment or business opportunities." (*Long Beach Equities, Inc. v. County of Ventura* (1991) 231 Cal.App.3d 1016, 1040; see also *Pennsylvania Coal Co. v. Mahon*

(1922) 260 U.S. 393, 413 [“Government hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law”].) A takings claim, which would seek monetary compensation from the County, would be decided based on the specific facts presented. Regardless of the outcome of any such claim, the 2040 General Plan policies themselves would remain in place.

One commenter asserts that General Plan Policies COS-7.7 and COS-7.8 are “infeasible” and “unconstitutional” based on language contained in a County Counsel memorandum from 2014 entitled “Legal Analysis on Antiquated Oilfield Conditional Use Permits.” County Counsel disagrees. The County’s position regarding antiquated permits and vested rights is summarized above, and is further addressed in the following County Counsel report that was publicly provided to the Board on September 10, 2019 (Ventura County 2019).

MR-4.C UNDERLYING MOTIVES OF THE PROPOSED OIL AND GAS POLICIES

Several commenters questioned the underlying motives of the proposed oil and gas policies in the 2040 General Plan. The 2040 General Plan does not ban new oil and gas activity or phase out existing oil and gas activity in the unincorporated county. Policies COS-7.2, COS-7.7, and COS-7.8 would reduce emissions of criteria air pollutants, toxic air contaminants, greenhouse-gas compounds, and decrease traffic safety risks associated with the transportation of oil and produced water. 2040 General Plan Policy COS-7.2 would require that new oil and gas wells be located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school. The draft EIR concluded that as proposed, Policy COS-7.2 would reduce the potential for sensitive receptors at residential dwellings and schools to be exposed to air pollutants including toxic air contaminants associated with new oil and gas wells (page 4.3-19). Policy COS-7.7 requires new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be allowed to be trucked for new discretionary oil wells. The draft EIR concluded that as proposed, Policy COS-7.7 would avoid air pollutant emissions that would otherwise result from trucking of oil and produced water from new discretionary oil wells (page 4.3-18). Additionally, COS-7.7 would result in the reduction of trucking of crude oil and produced water which could result in a potential reduction of Vehicle Miles Travelled (VMT) in the unincorporated county (page 4.16-23). The draft EIR also noted that greenhouse gas (GHG) emissions from vehicles are one of the largest sources of GHG emissions in the General Plan area (36 percent) (page 4.16-23). Finally, COS-7.8 requires that gases emitted from all new discretionary oil and gas wells shall be collected and used or removed for sale or proper disposal and flaring or venting of such gases shall not be allowed except in cases of emergency or for testing purposes. The draft EIR concluded that as proposed, Policy COS-7.8 would lessen air pollutant emissions that would otherwise result from flaring at new discretionary oil and gas wells (page 4.3-19). The draft EIR also concluded that these policies support attainment of the following 2040 General Plan Guiding Principles (page 4.12-23):

- **Hazards and Safety:** Minimize health and safety impacts to residents, businesses and visitors from human-caused hazards such as hazardous materials, noise, air, sea level rise, and water pollution, as well as managing lands to reduce the impacts of natural hazards such as flooding, wildland fires, and geologic events.
- **Climate Change and Resilience:** Reduce greenhouse gas emissions to achieve all adopted targets, proactively anticipate and mitigate the impacts of climate change,

promote employment opportunities in renewable energy and reducing greenhouse gases, and increase resilience to the effects of climate change.

- **Environmental Justice:** Commit to the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies, protect disadvantaged communities from a disproportionate burden posed by toxic exposure and risk, and continue to promote civil engagement in the public decision-making process.

MR-4.D MITIGATION MEASURES AND THE ROLE OF THE BOARD OF SUPERVISORS

Some commenters disagree with the inclusion of mitigation measures related to the impacts of Policies COS-7.7 (pipelines) and COS-7.8 (flaring) in the draft EIR (refer to Impact 4.12-4 starting at page 4.12-22). However, CEQA requires that before a project that will cause significant environmental impacts can be approved, a lead agency must find that all feasible mitigation measures that would reduce or eliminate a project's impacts have been adopted. (CEQA Guidelines, §§ 15092(b), 15043.) The analysis concluded that there would be potentially significant impacts from the loss of availability of known petroleum resources of value to the region and residents of the State resulting from the implementation of these policies. The draft EIR identified potentially feasible mitigation, Mitigation Measures PR-2 and PR-3 (page 4.12-31), which the draft EIR concludes would reduce the potentially significant impact to loss of availability of a known petroleum resource that would be of value to the region and residents of the State to less than significant (page 4.12-32).

The draft EIR (page 1-7) describes the requirements of State CEQA Guidelines Section 15091, which state that when approving a project, for each significant impact of the project identified in the EIR, the lead or responsible agency must find, based on substantial evidence, that either: (a) the project has been changed to avoid or substantially reduce the magnitude of the impact; (b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or (c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible. Per Public Resources Code Section 21061.1, feasible means capable of being accomplished in a successful manner within a reasonable period of time, taking into account, economic, environmental, legal, social, and technological factors. The ultimate decisions as to whether an environmental impact is significant and, separately, whether to adopt a proposed mitigation measure or a proposed project alternative included in a draft EIR to address a significant impact, are made by the decision-making body of the public agency conducting the CEQA review based on substantial evidence in the record. The public agency is not required to adopt every potential mitigation measure or alternative included in a draft EIR and may instead reject a mitigation measure or alternative if it is found to be infeasible based on substantial evidence in the record.

If a mitigation measure or alternative is rejected as infeasible, and a significant environmental impact would occur, the public agency may still approve the project by adopting a statement of overriding considerations based on a finding that the project's overall benefits outweigh the project's significant environmental impacts. The written statement of overriding considerations sets forth the specific social, economic, or other reasons supporting the agency's decision and explains why the project's benefits outweigh the significant environmental effects (State CEQA Guidelines Section 15093).

Here, the draft EIR includes County staff's determinations that Policy COS-7.2 would result in a potentially significant impact by hampering or precluding access to petroleum (Impact 4.12-3, starting at page 4.12-11), and that implementation of proposed Policies COS-7.7 and COS-7.8 would result in a potentially significant impact by resulting in the loss of availability of known petroleum resources that would be of value to the region and State (Impact 4.12-4). As a result of these significance determinations, and pursuant to the requirements of State CEQA Guidelines Section 15126.4, the draft EIR proposes Mitigation Measures PR-1 for Impact 4.12-3 (page 4.12-18), and Mitigation Measures PR-2 and PR-3 for Impact 4.12-4 (page 4.12-31) to minimize significant adverse impacts. Because the proposed project consists of the Board-proposed 2040 General Plan, including the subject oil and gas-related policies, County staff's proposed mitigation measures consist of potential revisions to the policies themselves in accordance with State CEQA Guidelines sections 15097(b) and 15126.4(a)(2). As explained above, in proposing that these policies may be revised to mitigate the potentially significant impact of the policies, County staff did not legislatively amend the draft policies themselves, but rather fulfilled CEQA's requirement to minimize significant adverse impacts. The ultimate decisions as to whether the environmental impacts of these policies are significant, and separately, whether to revise the policies in order to mitigate any potentially significant impacts, will be made by the Board based on substantial evidence in the record.

In this regard, the Board may conclude that any or all of the policy revisions/mitigations measures set forth in the draft EIR are infeasible and adopt a statement of overriding considerations concluding that the benefits of adopting the policies, as originally proposed by the Board, would outweigh any significant environmental impacts that would result from the policies. In particular, the Board may conclude that on balance, the environmental benefits of the Board-proposed policies – such as avoidance or mitigation of air pollutants and greenhouse gas emissions, health risks, hazards, traffic safety issues, biological impacts, and the existence of other environmental, social and/or economic factors – outweigh the policies' potential for hampering or precluding access to, or resulting in a loss of availability of, known petroleum resources.

The basic purposes of CEQA and the County's draft EIR are, in part, to inform the public and the County's decision-makers about the potential, significant environmental effects of the proposed 2040 General Plan and identify the ways that environmental damage can be avoided or significantly reduced (State CEQA Guidelines Section 15002(a)). The draft EIR does not make any legislative changes to the Board-proposed General Plan policies analyzed in the EIR.

MR-4.E APPLICABILITY OF REFERENCE STUDIES FOR OIL AND GAS OPERATIONS

Some commenters were concerned about the applicability of the studies relied upon for the analysis of the impacts of Policy COS-7.2 (Well Distance Criteria), and that these studies did not meet the informational requirements of CEQA. The draft EIR relies on many cited sources, but for Policy COS-7.2 Well Distance Criteria, the draft EIR relied on analyses contained in the statewide publication of the California Council on Science and Technology (CCST), *Independent Scientific Assessment of Well Stimulation in California* (CCST 2015) required by SB-4 (Oil and Gas: Well Stimulation); *Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County*, (2018) prepared at the request of the Los Angeles County Board of Supervisors; and *Oil and Gas Health Report* (2019) prepared at the request of the Los Angeles

City Council, and prepared by the then-City's Oil Administrator, Joe Uduak, who is now the State Oil and Gas Supervisor of CalGEM. In particular, Mr. Uduak used Los Angeles County's 2018 *Public Health and Safety Risks* report, together with analysis of economic effects and the effects of increased oil imports, in forming his recommendations in the 2019 *Oil and Gas Health Report*.

All three publications note that there is a lack of data to definitively quantify the potential health risks of oil and gas development outlined in each report and used by each report to establish distance criteria between new wells and sensitive land uses. The CCST report recommended further study and that agencies with jurisdiction over oil and gas operations validate that their policies and regulations are protective of human health and the environment (page 4.12-20).

The 2018 *Public Health and Safety Risks* identified health risks but was unable to quantify those risks in the context of well distance criteria. The study acknowledged that some quantifications of public health risk had been completed and that the studies were not able to conclude whether or not living near oil and gas activities is associated with long-term health effects. The study applied the precautionary principle that until such risks are shown to be safe, they should be treated as an ongoing concern (*Public Health and Safety Risks*, page 17 draft EIR page 4.12-19 to 20).

The 2019 *Oil and Gas Health Report* further expressed concern regarding setting policy on well distance criteria in the face of limited data, citing in addition the economic impacts of reduced local oil and gas development, and the environmental consequences of increased importation of oil to meet the reduced local development (page 4.12-20 to 21).

However, the 2019 *Oil and Gas Health Report* still relied upon the 2018 *Public Health and Safety Risks* report to recommend new restrictions on well distance criteria in the City of Los Angeles, including increased setback distances (page 4.12- 19 to 20). To date, the City of Los Angeles has not developed policy or regulations in response to the 2019 *Oil and Gas Health Report*.

Taken together, these sources and their use meet CEQA's requirements (State CEQA Guidelines Section 15151) that an EIR be prepared with a sufficient degree of analysis to provide decision makers with information on potential health risks related to oil and gas and well distance criteria that enables them to make a decision that takes account of environmental consequences of the well distance criteria. This level of analysis is sufficient in light of what is reasonably feasible in studies of this type; and the analysis and supporting studies note that there is disagreement among experts on some topics.

The conclusions of the 2018 *Public Health and Safety Risks* recommend the following actions with respect to health risks and well distance criteria:

DPH determined that there is sufficient evidence to provide the following guidance for oil and gas facilities in order to protect health:

1. Los Angeles County and local jurisdictions within the County should expand the minimum setback distance beyond 300 feet, as currently specified in local zoning code, and apply these requirements to both the siting of new wells and to the development of sensitive land uses near existing operations. It is important to note that a setback distance is not an absolute measure of health protection and additional mitigation

measures must also be considered. For existing oil and gas operations, a site-specific assessment at each facility throughout the County is necessary to identify current distances to sensitive land uses and other site characteristics that can be used to inform whether further mitigation measures are warranted to reduce potential public health and safety risks.

Similarly, the 2019 *Oil and Gas Health Report* recommended an increase in the current 300-foot setback in the City of Los Angeles to 600 feet for existing operations, and 1,500 feet for future operations.

This is a topic where there is disagreement among experts, but for which there are applicable guidance documents and studies that note the disagreement among experts and the areas for which there is a lack of data. Both the 2018 *Public Health and Safety Risks* and the 2019 *Oil and Gas Health Report* make recommendations similar to those of the County in the draft EIR. From the perspective of the draft EIR, use of these documents and noting the controversy meets the standard of substantial evidence with a disagreement among experts. See above discussion on disagreement among experts noted in the draft EIR Section 4.12 Minerals and Petroleum. Section 15151 of the State CEQA Guidelines states that disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

MR-4.F FLARING

Policy COS-7.8 would avoid emissions of criteria air pollutants, toxic air contaminants, and greenhouse-gas compounds from flares used to dispose gas produced from new discretionary oil and gas wells. Policy COS-7.8 requires that gases emitted from all new discretionary oil and gas wells be collected and used or removed for sale or proper disposal and flaring or venting of such gases shall not be allowed except in cases of emergency or for testing purposes. The draft EIR concludes that as proposed, Policy COS-7.8 would lessen air pollutant emissions that would otherwise result from flaring at new discretionary oil and gas wells (page 4.3-19). Further, the draft EIR concludes that this policy supports attainment of 2040 General Plan Guiding Principles (page 4.12-23) for Hazards and Safety, Climate Change and Resilience, and Environmental Justice.

The commenters do not dispute the foregoing beneficial impacts of the policy. With respect to the draft EIR, the new policy only applies to “new discretionary oil and gas wells;” therefore the policy would not adversely affect existing oil and gas operations. The technical analysis in the draft EIR acknowledges what the commenters assert: producing oil from new wells without flaring the produced gas would likely be infeasible for operators in certain cases based on cost and/or technological limitations associated with alternative methods of disposing of the produced gas. The draft EIR proposes Mitigation Measure PR-3 (page 4.12-31), which adds that “Flaring or venting shall only be allowed if the proponent demonstrates that conducting operations without flaring or venting is infeasible. In addition, flaring or venting is allowed in cases of emergency or and for testing purposes consistent with federal, State, and local regulations.” This mitigation measure would reduce the potential impact of the policy on availability of petroleum resources to less than significant because it would authorize the County to allow flaring in situations where an operator established that it was not feasible to avoid flaring produced gases that would be produced by new wells. The County Board of

Supervisors will ultimately decide whether to adopt, perhaps as modified, Mitigation Measure PR-3 or Policy COS-7.8, as described above in Section MR-4.D..

MR-4.G PIPELINE REQUIREMENTS

Policy COS-7.7 would avoid emissions of criteria air pollutants, toxic air contaminants, and greenhouse-gas compounds resulting from the trucking of oil and produced water from new discretionary oil wells. The policy would also decrease traffic safety risks associated with the trucking oil and produced water from such new wells. Policy COS-7.7 requires new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be allowed to be trucked for new discretionary oil wells. The draft EIR concludes that as proposed, Policy COS-7.7 would avoid air pollutant emissions that would otherwise result from trucking of oil and produced water from new discretionary oil wells (page 4.3-18). Additionally, COS-7.7 would result in the reduction of trucking of crude oil and produced water which could result in a potential reduction of Vehicle Miles Travelled (VMT) in the unincorporated county (page 4.16-23). The draft EIR also noted that greenhouse gas (GHG) emissions from vehicles are one of the largest sources of GHG emissions in the General Plan area (36 percent) (page 4.16-23).

With respect to the draft EIR, the new policy only applies to “new discretionary oil and gas wells;” therefore the policy would not adversely affect existing oil and gas operations. The technical analysis in the draft EIR acknowledges what the commenters assert: eliminating trucking in certain cases would likely be infeasible for the operator based on cost and/or technological limitations, and that operations based on the new wells would be curtailed as a result of this policy. The draft EIR proposes Mitigation Measure PR-2 (page 4.12-31), which adds that “Trucking of crude oil and produced water may only be allowed if the proponent demonstrates that conveying the oil and produced water via pipeline is infeasible. In addition, trucking of crude oil and produced water is allowed in cases of emergency and for testing purposes consistent with federal, State and local regulations.” This mitigation measure would reduce the potential impact of the policy to availability of petroleum resources to less than significant because it would authorize the County to allow the trucking of oil and produced water in situations where an operator established that it was not feasible to avoid trucking of oil and produced water that would be produced by new wells. The County Board of Supervisors will ultimately decide whether to adopt, perhaps as modified, Mitigation Measure PR-2 or Policy COS-7.7, as described above in Section MR-4.D.

MR-4.H BUFFERS (SETBACKS)

Policy COS-7.2 would reduce the potential for sensitive receptors to be exposed to air pollutants including toxic air contaminants. Policy COS-7.2 would require that new discretionary oil and gas wells be located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school. The draft EIR concludes that as proposed, Policy COS-7.2 would reduce the potential for sensitive receptors at residential dwellings and schools to be exposed to air pollutants including toxic air contaminants associated with new oil and gas wells (page 4.3-19). Further, the draft EIR concludes that this policy supports attainment of 2040 General Plan Guiding Principles (page 4.12-23) for Hazards and Safety, and Environmental Justice.

The draft EIR relies on many cited sources, but for many of the oil and gas related analyses pertaining to setbacks, the draft EIR relies on analyses in the statewide publication of the California Council on Science and Technology (CCST), *Independent Scientific Assessment of Well Stimulation in California* (CCST 2015) required by SB-4 (Oil and Gas: Well Stimulation); *Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County*, (2018) prepared at the request of the Los Angeles County Board of Supervisors; and *Oil and Gas Health Report* (2019) prepared at the request of the Los Angeles City Council, and prepared by the then-City's Oil Administrator, Joe Uduak, who is now the State Oil and Gas Supervisor of CalGEM. In particular, Mr. Uduak used Los Angeles County's 2018 *Public Health and Safety Risks* report, together with analysis of economic effects and the effects of increased oil imports, in forming his recommendations in the 2019 *Oil and Gas Health Report*.

All three publications note that there is a lack of data to quantify the potential health risks of oil and gas development outlined in each report and used by each report to establish distance criteria between new wells and sensitive land uses. The CCST report recommended further study and that agencies with jurisdiction over oil and gas operations validate that their policies and regulations are protective of human health and the environment. The 2018 *Public Health and Safety Risks* identified risks but was unable to quantify public health risks. The study acknowledged that some quantifications of public health risk had been completed and determined that the risks were *de minimus* but applied the precautionary principle that until such risks are shown to be safe, they should be treated as a continuing concern. The 2019 *Oil and Gas Health Report* further expressed concern regarding setting policy in the face of limited data, citing in addition the economic impacts of reduced local oil and gas development, and the environmental consequences of increased importation of oil to meet the reduced local development. However, the 2019 *Oil and Gas Health Report* still relied upon the 2018 *Public Health and Safety Risks* report to recommend new restrictions on well distance criteria in the City of Los Angeles, including increased setback distances. To date, the City of Los Angeles has not developed policy or regulations in response to the 2019 *Oil and Gas Health Report*.

CEQA Guidelines section 15151 provides guidance for the preparation of an adequate EIR:

1. An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information that enables them to make a decision that intelligently takes account of environmental consequences.
2. An evaluation of the environmental impacts of a project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible.
3. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts.

Based on the foregoing, CEQA provides that EIR preparers should use a reasonable methodology upon which to estimate potential environmental impacts and make reasonable assumptions using the best information that is reasonably available.

Taken together, these sources and their use in the draft EIR meet CEQA's requirements to prepare an EIR with a sufficient degree of analysis to provide decision makers with information that enables them to make a decision that intelligently takes account of environmental consequences; a degree of analysis that is sufficient in light of what is reasonably feasible; and that the draft EIR summarizes the main points of disagreement among experts on some topics.

Some commenters imply that the setbacks may reduce or curtail existing oil and gas production operations, but Policy COS-7.2 applies only to new discretionary oil and gas wells; there is no proposed change to setbacks for existing operations. Other commenters object to Policy COS-7.2's setback requirement of 2,500 feet from schools. Note that Mitigation Measure PR-1 (page 4.12-18) would expand the list of sensitive uses requiring a setback but would reduce the setback distance from 2,500 to 1,500 feet, including for schools.

Some commenters request that Mitigation Measure PR-1 be revised to increase setback requirements to 2,500 feet from residences. The analysis of setback distances in the draft EIR was based on the best information available at the time, which is limited in terms of quantifying health risks, and subject to disagreement among experts. Mitigation Measure PR-1 is consistent with the setback distance recommended for new discretionary oil and gas operations to the City of Los Angeles by their then-Oil Administrator, now the State Oil and Gas Supervisor leading CalGEM. The County Board of Supervisors will ultimately decide whether to adopt, perhaps as modified, Mitigation Measure PR-1 or Policy COS-7.2, as described above in the section titled *Mitigation Measures and the role of the Board of Supervisors in considering their feasibility*.

Some commenters noted that Policy COS-7.2 lacks setback requirements applicable to new sensitive land uses, such as dwellings, being proposed for development near existing oil and gas facilities. The commenter also states that the draft EIR does not explain why the 2040 General Plan does not include a "similar prohibition" regarding location of new residential land uses adjacent to existing or likely future land dedicated to oil and gas use. Policies which require setbacks to new sensitive land uses near existing oil and gas facilities are not a component of the project under evaluation (i.e., the 2040 General Plan). CEQA requires evaluation of the environmental effects of a project; consequently, potential policies that are not a component of the project under evaluation are not required to be evaluated in the EIR.

MR-4.I DIRECTIONAL DRILLING

A comment regarding Mitigation Measure PR-1 states that directional drilling could not be utilized at all potential drilling sites in the unincorporated county, although it could be utilized in many cases. This comment is consistent with the analysis of Policy COS-7.2 in the draft EIR. Note that Mitigation Measure PR-1 does not rely on directional drilling as a means of mitigating the significant impact identified with the implementation of Policy COS-7.2. Rather, the mitigation measure would expand the sensitive land uses subject to a standard 1,500-foot setback, while removing the 2,500-foot setback for schools. The draft EIR acknowledges that, even with the adoption of Mitigation Measure PR-1, the impact of Policy COS-7.2 would be significant and unavoidable based on its hampering or precluding access to subsurface petroleum resources.

MR-4.J POTENTIAL TO STOP ISSUING PERMITS FOR NEW WELLS (PHASE OUT OIL AND GAS OPERATIONS)

Some commenters have requested mitigation measures in the form of new 2040 General Plan policies and programs to phase out existing oil and gas production facilities. As noted by the commenters, policies and programs which phase out existing oil and gas facilities would need to occur over an extended time period sufficient to amortize the vested rights that operators

have in their existing permitted operations, and also presumably to address the economic and social dislocation that the phase out could entail. Policies and programs requiring a phase out of existing oil and gas facilities are not a component of the project under evaluation (i.e., the 2040 General Plan). The existence of these facilities are part of the baseline as considered in the evaluation of environmental impacts in the draft EIR. Impacts resulting from the change that implementation of the 2040 General Plan would have on baseline conditions are evaluated in the draft EIR with corresponding mitigation measures to lessen significant environmental impacts, where applicable.

MR-4.K EFFECTS OUTSIDE THE STUDY AREA

Some commenters have questioned the environmental effects of oil importation from outside of the study area (e.g. the 2040 General Plan unincorporated area boundary). In the analysis of the potential impact of Policy COS-7.2 (and the potential impacts of Policies COS-7.7 and COS-7.8, if not mitigated), the draft EIR (page 4.12-22) explains that even if the potential impacts of this policy are mitigated, it could, in certain situations, hamper or preclude access to local oil and gas resources which, in turn, could increase the State's and county's reliance on foreign imports from outside of the 2040 General Plan area. The draft EIR clearly discloses the supply/demand outlook that led to this conclusion, the likely location from where increased exports could come, and the likelihood that such imports would be delivered by marine tankers. The analysis was supported by citations to work conducted by the City of Los Angeles in the 2019 *Oil and Gas Health Report*, the California Energy Commission, and the U.S. Energy Information Administration. The draft EIR then discloses that the increase in oil imports could have indirect environmental impacts such as those associated with transporting the oil and gas from outside of Ventura County (page 4.12-21).

Based in part on this analysis of impacts outside the 2040 General Plan project area, the draft EIR concludes that implementation of Policy COS-7.2 (and implementation of Policies COS-7.7 and COS-7.8, if their impacts are not mitigated) would have significant and unavoidable impacts.

The comments argue that this life cycle analysis should have been completed and a greater amount of quantification applied to the effects outside the 2040 General Plan project area. State CEQA Guidelines Section 15145 requires an EIR to clearly identify and describe the direct and indirect significant effects of proposed projects, giving due consideration to both the short-term and long-term effects. On the other hand, EIRs should not engage in speculation. Thus, an EIR must analyze reasonably foreseeable indirect physical changes, which are defined as a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment. Although the County considered reasonably foreseeable indirect effects, it did not attempt to undertake a "life cycle" analysis of the effects from potentially increased import or export of oil and gas that could possibly occur from implementation of the proposed project. Any such analysis would be speculative and would not change the impact determination of significant and unavoidable.

MR-4.L OIL RESERVES

Some commenters indicate that the Background Report underestimates known oil reserves in the County and that Figure 8-10 (page 8-76) of that report does not indicate the known extent of recoverable sub-surface oil reserves which typically extend well beyond the lease boundaries of oil fields. Consequently, the commenters assert that this results in a potentially significant underestimating of the impact with regards to the “loss of availability of a known petroleum resource that would be of value to the region and residents of the State.” Chapter 8 Natural Resources, Section 8.4, Mineral Resources, of the Background Report states: “[t]he county’s oil reserves are estimated by the State Division of Oil and Gas and Geothermal Resources (DOGGR) at 246,141,000 barrels,” (page 8-74). In reviewing this comment, the County identified that the Background Report incorrectly reported the county’s estimated oil reserves as reported by State Division of Oil and Gas and Geothermal Resources (DOGGR), now called the California Geologic Energy Management Division (CalGEM). The most recent year for which CalGEM provided reserve estimates for California oil and gas fields is in its 2009 *Annual Report of the State Oil & Gas Supervisor* (Annual Report), at pages 83-112. The reserve figures estimated by CalGEM are forecasts of the proved developed producing portion of the spectrum of reserves categories and represent the most conservative estimate of the total hydrocarbon resource that may be recovered from a field or pool. Other types of reserve estimates would be higher, as summarized in the table below taken from the 2009 *Annual Report*.

| | | | | | |
|------------------------------------|----------------------|------------------------------|-----------------------------|--------------------------|--------------------------|
| Total Petroleum Initially-In-Place | Discovered in-Place | Commercial | Production Reserves | | |
| | | | Proved | | Proved + Probable |
| | | Dev. | Undev. | | |
| | | Sub-Com | Contingent Resources | | |
| | Low Estimate | | Best Estimate | High Estimate | |
| | Unrecoverable | | | | |
| | Undiscov. In-Place | Prospective Resources | | | |
| | | Low Estimate | | Best Estimate | High Estimate |
| | | Unrecoverable | | | |
| | | | | Increasing Uncertainty → | |

Petroleum resource classification chart. Used with permission of the *Journal of Petroleum Technology*.

The Annual Report indicates that, as of December 31, 2009, the total oil reserves in Ventura County as 143,969 Mbbbl, or 143,969,000 barrels of oil. This value may underestimate the actual total reserve capacity because it is a conservative method using proven reserves and does not include probable or possible reserves, but the agency with authority for determining the State’s oil reserves selected the more conservative method, which this EIR follows. The value is also 10 years old but is the most recent data available from CalGEM.

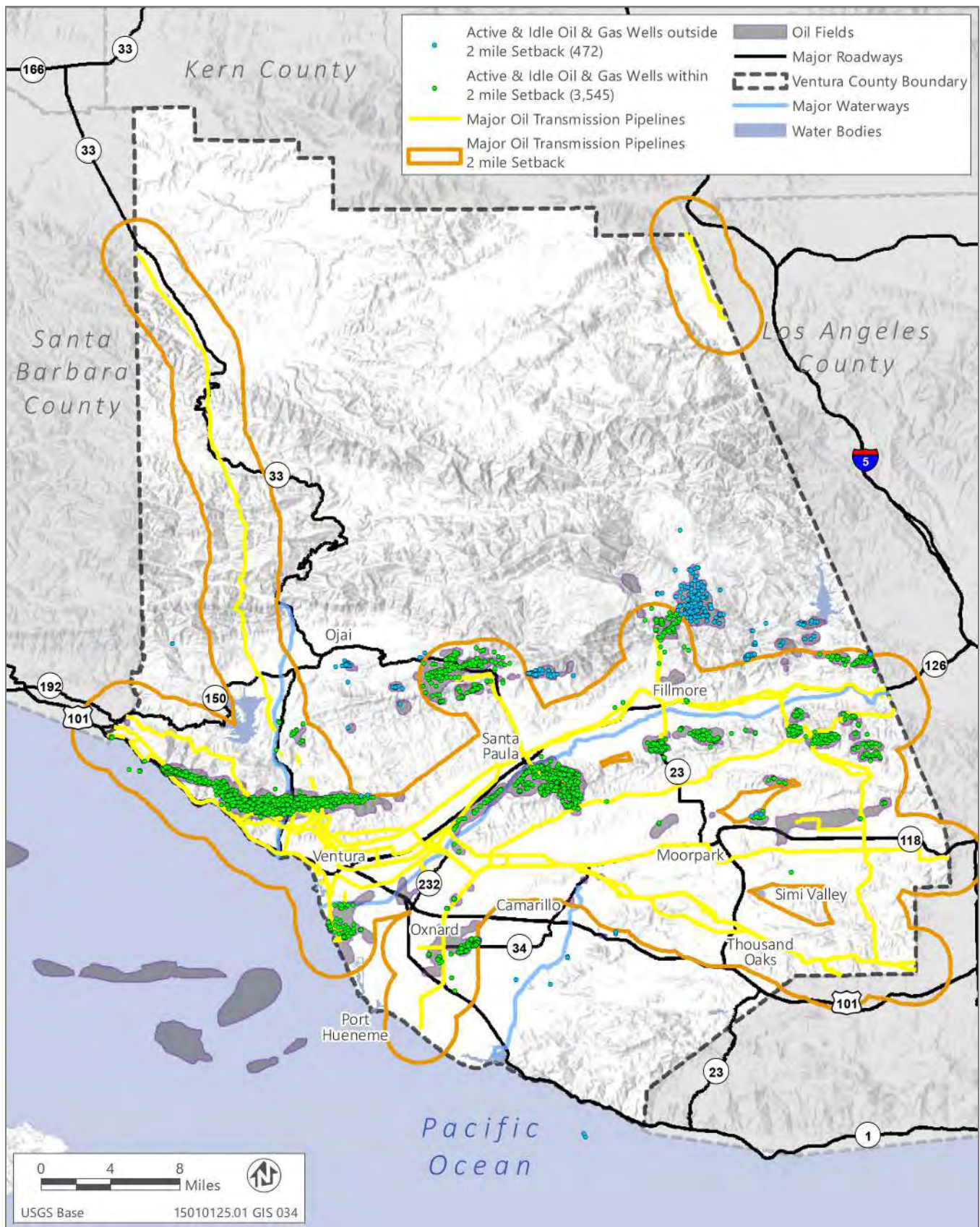
In response to this comment, Chapter 8 Natural Resources, Section 8.4, Mineral Resources, of the Background Report (page 8-74) will be revised with the following information:

[t]he county's oil reserves are estimated by the California Geologic Energy Management Division (CalGEM) Annual Report indicates that, as of December 31, 2009, the total oil reserves in Ventura County as 143,969 Mbbl, or 143,969,000 barrels of oil. This value may underestimate the total reserve capacity because DOGGR (now CalGEM) chose to use a conservative method using proven reserves and does not include probable or possible reserves State Division of Oil and Gas and Geothermal Resources (DOGGR) at 246,141,000 barrels.

The commenters assertion that the underreporting of oil reserves results in underestimating the impacts of the draft EIR Impact 4.12-4: Result in the Loss of Availability of a Known Petroleum Resource That Would Be of Value to the Region and the Residents of the State (page 4-12-22) is inaccurate. The draft EIR uses a different method to determine which oil wells may be impacted by the policy, because the policy does not apply to the total reserve capacity in the county. The policy only applies to new oil wells which would be a small fraction of the total proven reserve capacity. The draft EIR presents Figure 4.12-4, Major Oil Transmission Pipelines Map (page 4.12-25), which illustrates that most oil wells in the county are clustered within approximately 2 miles of major oil transmission pipelines, which transport oil from local operators out of the county for processing. Because of this observed clustering, the draft EIR (pages 4.12-25 to 26) indicates that for purposes of analysis and based on the estimated per mile cost to install pipelines, it is assumed that any existing oil wells located within a 2-mile radius of a major oil or gas transmission pipeline are connected to these transmission lines through smaller gathering or minor pipelines. Furthermore, it is assumed these oil operators have the operational ability to meet the American Petroleum Institute gravity thresholds and standards required to convey their oil through a major oil transmission pipeline. For oil wells located beyond a 2-mile radius of a major transmission pipeline, the analysis assumes that they are not connected to these lines. Additionally, it is assumed that for oil wells outside the 2-mile radius, the operators may not have the operational ability to blend oils in order to meet the American Petroleum Institute gravity thresholds and standards required to convey their oil through a major oil transmission pipeline.

As depicted in the draft EIR Figure 4.12-4 (page 4.12-25), 472 active and idle oil wells are located outside of the 2-mile radius of a major oil transmission line, and in more remote locations, likely consist of smaller oil producing operations that are not extracting a large volume of oil. This Figure also depicts 3,545 current active and idle oil wells located within the 2-mile of a major oil transmission pipeline. The larger clustering of these operations is likely a function of greater opportunities for oil extraction and technological or economically feasible access to a major oil transmission line (page 4.12-25).

Therefore, the commenters assertion that the underestimation of reporting of oil reserves in the Background Report results in a potentially significant underestimating of the impact with regards to the "loss of availability of a known petroleum resource" is inaccurate because the method does not rely on the CalGEM estimate of total proven reserve capacity, and the Policy does not affect existing oil wells. In addition, the analysis concludes that the impact is potentially significant; a greater total proven reserve capacity would not affect this impact determination. As depicted in Figure 4.12-4 (Major Oil Transmission Pipeline Map) on page 4.12-25 of the draft EIR, regardless of the estimated oil reserves reported in the Background Report, the majority of active and idle oil and gas wells depicted in Figure 4.12-4 have access



Revised Figure 4.12-4 Major Oil Transmission Pipeline

to oil reserves within established oil fields, and the policy does not affect existing oil wells. Figure 4.12-4 has been revised to remove the incorporated cities layer that previously obscured the oil fields.

As indicated on page 4.12-26 of the draft EIR, Figure 4.12-4 depicts “3,545 current active and idle oil wells located within the 2-mile of a major oil transmission pipeline” and “472 active and idle oil wells located outside of the 2-mile radius of a major oil transmission line.” CalGEM requires that all permitted oil wells be connected to an existing oil field.

The draft EIR indicates that Policies COS-7.7 and COS-7.8 could result in the loss of known petroleum resources of value to the region and the State because Policies COS-7.7 and COS-7.8 would mandate infrastructure that may be technologically or economically infeasible to install. However, based on the EIR analysis, the volume of loss for this petroleum resource would likely be at a smaller scale and concentrated on oil operators located outside of a 2-mile radius of a major oil or gas transmission pipeline. The policies could nonetheless render a substantial quantity of petroleum resources inaccessible and result in the loss of availability of known petroleum resources of value to the region and the State in at least some parts of the plan area (page 4.12-31). However, Mitigation Measure PR-2: Revised Policy COS-7.7: Limited Conveyance for Oil and Produced Water and Mitigation Measure PR-3: Revised Policy COS-7.8: Limited Gas Collection, Use, and Disposal enable operators to demonstrate the infeasibility of complying with the parameters of these policies. If the County determines that compliance with these policies is infeasible for an oil operator for new discretionary oil and gas wells, then access to petroleum resources and reserves would be available.

Additionally, with Mitigation Measure PR-1: Revised Policy COS-7.2: Oil Well Distance Criteria, this setback criteria may also affect access to petroleum reserves if the parcel size is too small to accommodate providing the required setback (page 4.12-31). Policy COS 7.2 would only apply to new discretionary oil and gas wells within the subject distance from sensitive use structures. Furthermore, as shown in Figures 4.12-1 (page 4.12-15) and 4.12-2 (page 4.12-16), there are currently 23 active and idle oil wells within 2,500 feet of existing schools and 715 active and idle oil wells within 1,500 feet of existing dwellings in the unincorporated county. Future discretionary expansion of oil production within the setback distances depicted on Figures 4.12-1 and 4.12-2 would be prohibited pursuant to Policy COS-7.2. While Policy COS-7.2 could theoretically affect local oil and gas exports and increase the reliance on imports from outside of the 2040 General Plan area (page 4.12-22). However, as described in the draft EIR, with minimum parcel sizes ranging from one to forty acres, the Open Space/Coastal Open Space, Agricultural/Coastal Agricultural and Rural Agriculture zone classifications for which oil and gas exploration and production is allowed as a conditionally permitted land use that is potentially compatible with dwelling units and schools, would likely not hamper or preclude access to petroleum reserves in the vicinity of these uses (page 4.12-24).

The commenters contention that the total oil reserves are underreported in the draft EIR would not change the impact conclusions in the draft EIR. Therefore, the only revision to the draft EIR made in response to this comment are the addition of Figure 4.12-4 noted above and in the Background Report correcting the currently available data regarding oil reserves in Ventura County, also noted above.

MR-5 Master Response 5: Comments Concerning Draft EIR Mitigation Measure AG-2 for Loss of Important Farmland

Several commenters expressed concern regarding Mitigation Measure AG-2, which would require discretionary projects that result in direct or indirect loss of Important Farmland in excess of specified thresholds to establish an offsite agricultural conservation easement on farmland of equal quality at a 2-to-1 mitigation ratio (acres preserved-to-acres converted) (draft EIR page 4.2-16). Comments assert that the measure's feasibility is "doubtful" since agricultural landowners would have to agree to encumber their land with conservation easements which could not be assured, and that this measure is not "economically feasible" and would be "cost prohibitive." Commenters ask for details about the measure's implementation such as the number of existing acres of agricultural lands by Important Farmland categories that will be needed for conservation easements and the "projected price per acre." Commenters also criticize the measure because it "does not result in any replacement of lost farmland," and assert that the draft EIR provides "no details on how the county will implement or monitor this program."

This master response provides a summary of the draft EIR's impact analysis, mitigation measures, and impact conclusions regarding loss of Important Farmland (Impact 4.2-1); summarizes CEQA requirements for mitigation measures, including as they relate to agricultural conservation easements; provides an overview of agricultural conservation easements under California law and as utilized as a mitigation by other cities and counties statewide; addresses commenters' assertions about the feasibility of Mitigation Measure AG-2, including specific assertions regarding Ventura Local Agency Formation Commission (LAFCo); and describes the consistency of this measure with the County's Non-Coastal Zoning Ordinance and minimum lot size requirements.

DRAFT EIR IMPACT 4.2-1: LOSS OF PRIME FARMLAND, FARMLAND OF STATEWIDE IMPORTANCE, UNIQUE FARMLAND, AND FARMLAND OF LOCAL IMPORTANCE

Draft EIR Section 4.2, "Agriculture and Forestry Resources," considers whether future development under the 2040 General Plan could result in loss of agricultural resources or conversion of agricultural resources to non-agricultural uses by allowing for non-agricultural land uses to be located directly on existing designated farmland (Impact 4.2-1; pp. 4.2-9 to 4.2-17).

Impact 4.2-1 addresses the potential direct and indirect loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance (collectively, "Important Farmland") as a result of 2040 General Plan implementation, and the draft EIR concludes this impact would be significant and unavoidable. After a discussion of agricultural preservation efforts, including the Save Open Space and Agricultural Resources (SOAR) initiative, the Ventura County Guidelines for Orderly Development, the County's zoning ordinances, and policies and programs in the 2040 General Plan, the significance conclusion for this impact is stated in the draft EIR at page 4.2-15:

[T]he planned land use designations of the 2040 General Plan would allow for future development that could result in the direct or indirect loss of Important Farmland (including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance) that would exceed the County's established acreage limitation criteria for loss of farmland and result in the permanent loss of this valuable

resource. Any future development that causes the loss of Important Farmland that exceeds the County’s acreage limitation thresholds would be considered significant and the full extent of development and the potential for the direct or indirect loss of Important Farmland cannot be quantitatively determined at this time. Therefore, potential loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance as a result of future development under the 2040 General Plan would be potentially significant.

The draft EIR proposes Mitigation Measure AG-1 and Mitigation Measure AG-2 to address the potential significant impact for Impact 4.2-1 (pages 4.2-16 to 4.2-17). The text of these measures from the draft EIR is provided in full below.

Mitigation Measure AG-1: New Policy AG-X Avoid Development on Agricultural Land
 The County shall include the following new policy in the 2040 General Plan.

Policy AG-X Avoid Development on Agricultural Land

The County shall ensure that discretionary development located on land identified as Important Farmland on the State's Important Farmland Inventory shall be conditioned to avoid direct loss of Important Farmland as much as feasibly possible.

Mitigation Measure AG-2: New Implementation Program AG-X: Establish an Agricultural Conservation Easement

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program AG-X: Establish an Agricultural Conservation Easement

Applicants for discretionary projects that would result in direct or indirect loss of Important Farmland in exceedance of the acreage loss thresholds listed in the table below shall ensure the permanent protection of offsite farmland of equal quality at a 2:1 ratio (acres preserved: acres converted) through the establishment of an offsite agricultural conservation easement.

| <u>General Plan Land Use Designation</u> | <u>Important Farmland Inventory Classification</u> | <u>Acres Lost</u> |
|------------------------------------------|----------------------------------------------------|-------------------|
| <u>Agricultural</u> | <u>Prime/ Statewide</u> | <u>5</u> |
| | <u>Unique</u> | <u>10</u> |
| | <u>Local</u> | <u>15</u> |
| <u>Open Space/Rural</u> | <u>Prime/ Statewide</u> | <u>10</u> |
| | <u>Unique</u> | <u>15</u> |
| | <u>Local</u> | <u>20</u> |
| <u>All Land Use Designations</u> | <u>Prime/ Statewide</u> | <u>20</u> |
| | <u>Unique</u> | <u>30</u> |
| | <u>Local</u> | <u>40</u> |

If the Planning Division, in consultation with the Agricultural Commissioner, determines that a discretionary project would result in direct or indirect loss of

Important Farmland in exceedance of the acreage loss thresholds listed in the table above, the project applicant shall prepare and submit a report for the review and approval of the Planning Division in consultation with the Agricultural Commissioner which identifies a minimum of one proposed potential mitigation site suitable for ensuring the permanent protection of offsite farmland of equal quality at a 2:1 ratio (acres preserved: acres converted) through the establishment of an offsite agricultural conservation easement. The contents of the report shall be determined, reviewed, and approved by the Planning Division in consultation with the Agricultural Commissioner (hereafter referred to as the “reviewing agencies”), and shall include information necessary for the reviewing agencies and a qualified entity responsible for holding the conservation easement to determine the viability of the proposed mitigation site for the establishment of a permanent agricultural conservation easement. Among the factors necessary for approval by the reviewing agencies, the proposed mitigation site shall be located in the County of Ventura unincorporated area, must not already have permanent protection, and must be equivalent to or greater than the type of Important Farmland (e.g., Unique farmland) that would be converted by the project. Among other terms that may be required by the reviewing agencies in consultation with a qualified entity, the terms of an agricultural conservation easement shall include a requirement that it run with the land. Project applicants are responsible for all costs incurred by the County and the qualified entity to successfully implement this mitigation measure. Proof of the successful establishment of an agricultural conservation easement shall be provided to the Planning Division prior to issuance of a zoning clearance.

The draft EIR explains that implementation of Mitigation Measures AG-1 and AG-2 would reduce impacts to Important Farmland to the extent feasible; however, any direct or indirect loss of Important Farmland greater than the threshold amounts would be considered a permanent loss of a valuable resource (page 4.2-17). Establishing agricultural conservation easements would conserve Important Farmland within the unincorporated county but would not prevent the permanent loss of existing Important Farmland.

Overview of Agricultural Conservation Easements

The California Department of Conservation defines an agricultural conservation easement as a voluntary, legally recorded deed restriction that is placed on a specific property used for agricultural production. The goal of an agricultural conservation easement is to maintain agricultural land in active production by removing the development pressures from the land. Such an easement prohibits practices that would damage or interfere with the agricultural use of the land. Because the easement is a restriction on the deed of the property, the easement remains in effect even when the land changes ownership (DOC 2019a).

Agricultural conservation easements are created specifically to support agriculture and prevent incompatible development on the subject parcels. While other benefits may accrue because the land is not developed (scenic and habitat values, for example), the primary use of the land is agricultural. Easements must be of a size and nature suitable for viable commercial agriculture.

Agricultural conservation easements are held by land trusts or local governments which are responsible for ensuring that the terms of the easement are upheld. The easement may be donated to the easement holder, purchased (if the easement holder can obtain funding), or a

combination of the two. Typically, the easement holder will conduct an annual visit to the property to verify that the uses of the property are consistent with the terms of the easement. Each agricultural conservation easement is negotiated between the landowner, the easement holder, and any funding sources.

According to the Department of Conservation, “(c)onservation easements are an available mitigation tool and considered a standard practice in many areas of the State. As such, the Department advises the use of permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the direct loss of agricultural land. Conservation easements will protect a portion of those remaining land resources and lessen project impacts in accordance with CEQA Guidelines § 15370. The Department highlights this measure because of its acceptance and use by lead agencies.” (DOC 2019b). California courts have likewise recognized agricultural conservation easements as an appropriate means of mitigating for the loss of agricultural soils under CEQA. (See, e.g., *Masonite v. County of Mendocino* (2013) 218 Cal.App.4th 230 [“We conclude that [agricultural conservation easements] may appropriately mitigate for the direct loss of farmland when a project converts agricultural land to a nonagricultural use, even though an [agricultural conservation easement] does not replace the onsite resources].) ”

As recognized by the Department of Conservation, agricultural conservation easements are a frequently used as mitigation measure statewide. Table 2-4 contains a sampling of existing programs in the State.

Table 2-4 Example California Cities or Counties with Existing Agricultural Land Mitigation Policies or Programs

| Jurisdiction | Policy/Ordinance/Program | Date of Adoption or Most Recent Amendment | Mitigation Ratio |
|---------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------|
| City of Brentwood | Municipal Code Section 17.730.030, “Agricultural Land Mitigation Requirements” | 2010 | 1:1 |
| City of Davis | Municipal Code Article 40A.03, “Farmland Preservation” | 2007 | 2:1 |
| City of Gilroy | Agricultural Mitigation Policy | 2016 | 1:1 |
| City of Hughson | Farmland Preservation Program | 2013 | 2:1 |
| City of Livermore | South Livermore Valley Specific Plan Section 6.3, “Agricultural Land” | 2004 | 1:1 |
| City of Morgan Hill | Agricultural Lands Preservation Program, Agricultural Mitigation Ordinance | 2014, 2015 | 1:1 |
| City of Dixon | Municipal Code Chapter 17.16A, “Agricultural Mitigation” | 2020 | 1:1 |
| San Joaquin County | Ordinance Code Chapter 9-1080, “Agricultural Mitigation” | 2006 | 1:1 |
| Stanislaus County | General Plan Agricultural Element Appendix B, “Farmland Mitigation Program Guidelines” | 2016 | 1:1 |
| Yolo County | Zoning Code Section 8-2.404, “Agricultural Conservation and Mitigation Program” | 2015 | 1:1 |
| El Dorado County | General Plan Agriculture and Forestry Element Policy 8.1.3.4 | 2015 | 1:1 |
| Merced County | General Plan Policy AG-2.2, “Agricultural Land Mitigation,” County Code Chapter 9.30, “Agricultural Mitigation” | 2013, 2016 | 1:1 |
| Sacramento County | General Plan Agriculture Element | 2017 | 1:1 |

MR-5.A CEQA REQUIREMENTS FOR MITIGATION MEASURES

CEQA defines “mitigation” Guidelines Section 15370 as:

- (a) Avoiding the impacts altogether by not taking a certain action of parts of an action.
- (b) Minimizing impacts by limiting the degree of magnitude of the action and its implementation.
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (e) Compensating for the impact by replacing or providing substitute resources or environments, including through the permanent protection of such resources in the form of conservation easements.

In addition, CEQA requires that an EIR “describe feasible measures which could minimize significant adverse impacts” (CEQA Guidelines, § 15126.4(a)(1)). Mitigation measures “shall not be deferred until some future time;” however, lead agencies are permitted to develop “(t)he specific details of a mitigation measure...after project approval when it is impractical or infeasible to include those details during the project’s environmental review” so long as the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will be considered, analyzed, and potentially incorporated into the mitigation measure.” (CEQA Guidelines, § 15126.4(a)(1)(B)).

Mitigation Measure AG-2 clearly meets CEQA requirements for describing feasible mitigation measures. For one, CEQA Guidelines Section 15370(e) specifically identifies “permanent protection of...resources in the form of conservation easements” as part of the definition of mitigation by compensating for impacts “by replacing or providing substitute resources or environments.”

Moreover, the draft EIR text of Mitigation Measure AG-2 (provided in full above) clearly demonstrates: the County’s commitment to require agricultural conservation easements for discretionary projects meeting the specified criteria for Important Farmland loss based on land use designation; the objective standard for preserving Important Farmland; and that the standard would be achieved through the use of agricultural conservation easements. Mitigation Measure AG-2 also sets forth the process through which the County would enforce and implement this measure at the project level.

Feasibility of Mitigation Measure AG-2

Commenters assert that this mitigation measure would be infeasible for certain project types when sited on Important Farmland. To place this feasibility issue in perspective, based upon the County’s past experience in applying the County’s existing above-stated threshold of significance which would be carried forward in the 2040 General Plan, the County does not anticipate that many discretionary projects would be proposed that would result in a loss of acreage exceeding the thresholds of Mitigation Measure AG-2. Consequently, the County does

not anticipate that Mitigation Measure AG-2's agricultural conservation easement requirement would be commonly applied. This is because the 2040 General Plan, including its SOAR provisions, largely requires areas with Important Farmland to be used for agricultural purposes, thereby substantially limiting the potential for conversion of agricultural lands to non-agricultural development in these areas. And while commenters assert that Mitigation Measure AG-2 would impede the ability to develop agriculture-dependent/related development (e.g., farm stands, wineries, breweries, ag tourism facilities, and farmworker housing), habitat restoration projects, or other development that benefit the public and the environment, not all projects that result in the loss of Important Farmland would be subject to Mitigation Measure AG-2. Again, based on the County's past experience applying this threshold of significance, the vast majority of ancillary agricultural buildings and uses are unlikely to impact Important Farmland in acreages that would exceed the acreage thresholds of Mitigation Measure AG-2.

Most existing Important Farmland in the unincorporated county is protected from intensive non-agricultural related development by the 2040 General Plan policies, including its SOAR provisions, which apply land designated as Rural, Agricultural, and Open Space. The draft EIR explains how these land use designations, which cannot be amended without majority countywide approval, are compatible with agricultural uses (pp. 4.2-10 and 4.2-11). Approximately 97.1 percent of land in the unincorporated county would remain designated as Open Space or Agriculture under the 2040 General Plan, and an additional approximately 0.9 percent would retain the Rural land use designation. In contrast, Residential, Commercial, Mixed Use, and Industrial land use designations would apply to approximately 1.2 percent of land in the unincorporated county under the 2040 General Plan (page 4.2-10).

Of the approximately 110,154 acres of Important Farmland in the unincorporated county, approximately 109,578 acres (99 percent) are located within the Agricultural (81,512.8 acres, 74.0 percent), Open Space (26,617.9, 24.2 percent), and Rural (1,447.3, 1.3 percent) land use designations.¹ The densities allowed in these land use designations are 1 dwelling unit (du) per 40 acres in Agricultural, 1 du per parcel (minimum lot size of 10 acres) in Open Space, and 1 du per 2 acres in Rural (page 3-5). The remaining 576.0 acres (0.6 percent) of Important Farmland are located within Commercial Planned Development (3.7 acres), Industrial (94.3 acres), Low-Density Residential (2.5 acres), Residential Planned Development (78.2 acres), State or Federal Facility (280.0 acres), and Very Low Density Residential (117.2 acres), with small amounts in some other designations. There is no Important Farmland within Coastal Residential Planned Development, Mixed Use, Parks & Recreation, or Medium-Density Residential designations. As a result of the concentration of Important Farmland in land use designations that allow only limited density (refer to Table 2-5), substantial development and density would not occur on Important Farmland simply by way of the General Plan's land use designations and related policies.

¹ These totals include lands designated as ECU-Agricultural, ECU-Rural, and ECU-Open Space.

Table 2-5 Distribution of Important Farmland by 2040 General Plan Land Use Designation

| Acronym | Land Use Designation | Maximum Density / Intensity | Acres of Important Farmland in Unincorporated County | Percent of Important Farmland in Unincorporated County |
|-----------------------------------------------------------|-------------------------------------------------|-------------------------------|------------------------------------------------------|--------------------------------------------------------|
| Rural, Agricultural, and Open Space Designations | | | | |
| RUR | Rural ¹ | 1 du/2 ac | 1,395.4 | 1.3 |
| ECU-R ² | ECU-Rural | 1 du/2 ac | 51.9 | <0.1 |
| AG | Agricultural ² | 1 du/40 ac | 81,450.5 | 73.9 |
| ECU-A ² | ECU-Agricultural | 1 du/40 ac | 62.3 | 0.1 |
| OS | Open Space ¹ | 1 du/parcel | 26,610.9 | 24.2 |
| ECU-OS ² | ECU-Open Space | 1 du/parcel | 7.0 | <0.1 |
| Total | | | 109,578 | 99.5 |
| Residential Designations | | | | |
| VLDR | Very Low Density Residential | 4 du/ac | 117.2 | 0.1 |
| LDR | Low-Density Residential | 6 du/ac | 2.5 | <0.1 |
| MDR | Medium-Density Residential | 14 du/ac | 0.0 | 0.0 |
| RHD | Residential High-Density | 20 du/ac | 0.1 | <0.1 |
| RPD | Residential Planned Development | 20 du/ac | 78.2 | 0.1 |
| CRPD | Coastal Residential Planned Development | 36 du/ac | 0.0 | 0.0 |
| RB | Residential Beach | 36 du/ac | <0.1 | <0.1 |
| Total | | | 198.0 | 0.2 |
| Mixed Use, Commercial, and Industrial Designations | | | | |
| MU | Mixed Use | 20 du/ac; 60% lot coverage | 0.0 | 0.0 |
| C | Commercial | 60% lot coverage | <0.01 | <0.1 |
| CPD | Commercial Planned Development | 60% lot coverage | 3.7 | <0.1 |
| I | Industrial | 50% lot coverage | 94.3 | 0.1 |
| Total | | | 98.0 | 0.1 |
| Other Designations | | | | |
| PR | Parks & Recreation | n/a | 0.0 | 0.0 |
| P | State, Federal, Other Public Lands ² | n/a | 280.0 | 0.3 |
| Total | | | 280.0 | 0.3 |

Notes: ac = acre; du = dwelling unit; n/a = not applicable; SF = square foot.

¹ Existing General Plan land use designations that would be retained.

² The acronym "ECU-" preceding a designation name refers to land use designations that apply only within the boundaries of an Existing Community or Urban area designation (boundary) as defined in 2040 General Plan Policies LU-1.2 and LU-2.1.

For discretionary projects that are authorized on land containing Important Farmland, that would exceed the acreage loss thresholds of Mitigation Measure AG-2, and thus that would require acquisition of agricultural conservation easements, the unincorporated county contains an adequate area of available Important Farmland by category which could be protected by agricultural conservation easements. As stated above, there are approximately 110,154 acres of Important Farmland in the county, with the following breakdown by category:

- ▶ Prime Farmland: 38,570.5 acres
- ▶ Farmland of Statewide Importance: 30,756.6 acres
- ▶ Farmland of Local Importance: 13,213.9 acres
- ▶ Unique Farmland: 27,613.0 acres

The size of existing farms in the unincorporated area is also adequate to support the creation of agricultural conservation easements under Mitigation Measure AG-2. As described in the draft EIR (pp. 4.2-9 and 4.2-10), the average farm size in the county is 131 acres. The majority of farms are less than 50 acres and about half of farms are less than 10 acres. The minimum amount of offsite farmland that would be protected under Mitigation Measure AG-2 would be 10 acres with a 2:1 mitigation ratio, or would be 5 acres with a 1:1 mitigation ratio, based on the minimum of at least five acres of Important Farmland loss needed to trigger the need for a conservation easement. In addition, the measure requires that project applicants identify a “minimum of one proposed potential mitigation site” suitable for a conservation easement, so long as the project applicant demonstrates the viability of the proposed sites for establishment of permanent conservation easements to the satisfaction of the County.

Commenters also state that the draft EIR does not “provide evidence” of several costs, which are asserted as associated with Mitigation Measure AG-2, including costs of purchasing and establishing conservation easements on each Important Farmland category, costs of managing farmland under a conservation easement, and costs of monitoring farmland under conservation easements.

County staff has not been provided with or otherwise identified evidence establishing that the costs of establishing conservation easements render this mitigation measure infeasible. To the contrary, there is evidence that agricultural conservation easements in general are feasible from a cost perspective, based on the number of existing programs statewide as well as nonprofits that also administer and manage conservation easements, including monitoring compliance with the easement. For example, the Marin Agricultural Land Trust has protected 46,000 conservation easement acres, the California Farmland Trust has protected 15,741 conservation easement acres, and the San Benito Land Trust has protected 6,749 conservation easement acres (CCLT 2020a, CCLT 2020b, SBALT 2018).

The exact costs associated with implementing Mitigation Measure AG-2 are uncertain for the following reasons. This measure would apply to future discretionary projects that could occur during the planning horizon of the 2040 General Plan over an approximately 20-year period. The specific details of such projects, including their timing, location, size, acreage of impact on Important Farmland by category, are not known. For projects subject to this measure, it is not possible to know the location(s) or size(s) of site(s) that a project applicant would select to encumber with agricultural conservation easement(s). Many factors affect the value of farmland and it cannot be known at this time how these and other factors will affect the costs associated with specific farms or specific parcels in the county over the next 20 years. These factors include but are not limited to national, regional, and local economic conditions, interest rates, government policy, agricultural industry trends, soil quality, the presence of structures and other improvements, and urban proximity (USDA ERS 2020).

Commenters expressed concerns regarding the viability of developing farmworker housing projects after factoring in the costs of obtaining agricultural conservation easements pursuant to Mitigation Measure AG-2. By way of background, the County's 2040 General Plan, SOAR initiative measure, zoning ordinances and State law all consider and treat farmworker housing as being compatible with and accessory to the agricultural production land use. Farmworker housing projects are thus consistent with and authorized in every General Plan land use designation where agricultural production is allowed. And under the County's existing Non-Coastal Zoning Ordinance, farmworker housing projects are authorized in the Agricultural Exclusive (AE), Open Space (OS), and Rural Agriculture (RA) zoning designations, among others. In addition, both SOAR and the 2040 General Plan include provisions encouraging the development of farmworker housing as a means of maintaining the economic viability of the agricultural sector in Ventura County. In this regard, draft 2040 General Plan Policy LU-8.5, Farmworker Housing, states in part that "the County shall support the development of safe and quality farmworker housing that facilitates a reliable labor force and promotes efficient agricultural operations," and Policy AG-1.6, Support Economic Viability of Agriculture, states that "the County shall improve the economic viability of agriculture through policies that support agriculture as an integral business to the County."

As recognized by the 2040 General Plan and SOAR, the sustainability of the food and agricultural systems of Ventura County (and the State and nation) is highly dependent on the manual labor of farmworkers. However, crop labor is a low-paying, hazardous profession, and the supply of workers to fill these jobs is limited. Farmworkers are often socially and geographically isolated, and their unique health and safety needs are frequently overlooked. Migrant, seasonal, immigrant, and undocumented farmworkers lack suitable housing options. This housing shortage has negative effects on the health of workers, the rural communities where they live and work, and the viability of the farming sector that employs and feeds millions of people.

The development of farmworker housing may nonetheless result in a loss of Important Farmland exceeding the acreage thresholds of Mitigation Measure AG-2 thus requiring the establishment of agricultural conservation easements to preserve offsite Important Farmland in proportion to the projects' impacts pursuant to the mitigation measure.

Given the substantial costs of developing farmworker housing and the fact that such projects generate little, if any, return on investment, the additional costs associated with requiring proponents or farmworker housing projects to establish agricultural conservation easements could present an economic impediment to the development of this essential, much-needed housing. Consequently, imposing this mitigation requirement on farmworker housing projects may render some farmworker housing projects economically infeasible and thus may undermine the effectiveness of the aforementioned proposed 2040 General Plan policies encouraging the development of farmworker housing to support the economic viability of agriculture. Based on the foregoing, and as set forth below, Mitigation Measure AG-2 has been revised to except farmworker housing projects from its agricultural conservation easement acquisition requirement. Farmworker housing projects will still be subject to Mitigation Measure AG-1 which require such projects "to avoid direct loss of Important Farmland as much as feasibly possible." This revision to Mitigation Measure AG-2 is anticipated to result in the preservation of slightly less overall acreage of Important Farmland pursuant to agricultural conservation easements, although the exact amount of such acreage is not known and cannot be quantified at this time due to the uncertainty regarding the number, size and location of

farmworker housing projects that could be developed on Important Farmland during the 20-year planning horizon of the 2040 General Plan.

With respect to the comments asserting that Mitigation Measure AG-2 is economically infeasible outside the context of farmworker housing projects, it is true that in situations where an agricultural conservation easement would be required – which, as explained above, is not anticipated to be common – the 2:1 mitigation ratio required by Mitigation Measure AG-2 would make the mitigation measure costlier to implement as compared to a lower mitigation ratio such as 1:1. In evaluating the economic feasibility of Mitigation Measure AG-2, the County researched jurisdictions across the State which have adopted agricultural conservation easement requirements. Of the 13 jurisdictions identified in Table 2-1 (above), 11 have policies or programs requiring preservation of farmland at a 1:1 mitigation ratio, and 2 at a 2:1 ratio. The predominant use of a 1:1 ratio statewide suggests that a lower mitigation ratio may be more economically feasible.

In comparing a 1:1 ratio versus a 2:1 ratio for Mitigation Measure AG-2, both would lessen the impact related to the loss of Important Farmland. However, the impact would remain significant and unavoidable under either ratio because, as explained above and recognized by California courts, agricultural conservation easements do not replace the Important Farmland that is converted and permanently lost by projects that impact the soils, but rather are a means of preserving offsite Important Farmland to limit the further, subsequent loss of the resource. A reduction in the preservation ratio from 2:1 to 1:1 would presumably make this mitigation less costly to implement, but would result in the permanent preservation of fewer acres of Important Farmland. To address the commenters' concerns regarding economic feasibility, and to make the County's agricultural conservation easement requirement consistent with the majority of similar mitigation measures statewide that have been identified by County staff, Mitigation Measure AG-2 has been revised to reduce the mitigation ratio from 2:1 to 1:1.

Recent Ventura LAFCo Actions Do Not Support Commenters' Assertion of Mitigation Measure AG-2 Infeasibility

Some commenters reference the Ventura Local Agency Formation Commission's (LAFCo) previous discussion and action addressing the mitigation of agricultural land conversion impacts resulting from LAFCo-approved projects as evidence of the infeasibility of Mitigation Measure AG-2. One commenter cited LAFCo's consideration of agricultural conservation easements at a 1:1 ratio and then asserted that LAFCo "...eventually did not enact policies due to the inability to purchase development rights in an economically feasible manner." This comment is inaccurate, as explained below.

Following a series of public workshops and meetings that occurred between 2015 and 2017, the Ventura LAFCo took two actions with respect to agricultural mitigation measures. The first action was to revise Section 1.4.3.1.d. of LAFCo's *Administrative Supplement to the CEQA Guidelines* (Division 1, Chapter 4 of the Commissioner's Handbook) to add the following: "For projects that would result in the conversion of prime agricultural land to non-agricultural uses, the environmental document should consider mitigation measures to address the potential loss of the agricultural land, as provided for under Govt Code Section 65965 et al."

The second action was to prepare *Informational Guidelines for the Consideration of Agricultural Mitigation Measures* for CEQA lead agencies. The *Guidelines* include an excerpt of Section 1.4.3.1.d of the LAFCo Commission's *Administrative Supplement to the CEQA Guidelines* (Division 1, Chapter 4 of the Commissioner's Handbook). The approved

Informational Guidelines also include examples of mitigation measures that could be considered at the discretion of the lead agency, if feasible, including, but not limited to, agricultural conservation easements. Lastly, the approved *Informational Guidelines* include the following paragraph: “When considering such mitigation measures, lead agencies should consider related implementation factors, including, but not necessarily limited to” followed by a implementation factors such as “Permanent preservation of other prime agricultural land (such as in a 1:1 ratio, or greater, to that proposed to be converted).”

Another comment stated that “County Counsel [Ventura County Chief Assistant County Counsel, who also serves as legal counsel for the Ventura LAFCo] informed LAFCo at their March 24, 2016 hearing that a mitigation measure requiring the 1:1 mitigation of local farmland to replace farmland that would be removed by proposed development did not meet the standard for economic feasibility based on a legal decision in *City of Irvine v. County of Orange*” [*City of Irvine v. County of Orange* (2015) 238 Cal.App.4th 526 (“*City of Irvine*”)]. Contrary to this comment, the referenced County Counsel presentation merely provided a broad legal overview of the use of agricultural conservation easements as mitigation for the loss of agricultural resources; no specific feasibility analysis relating to the cost of establishing agricultural conservation easements in Ventura County was conducted by or presented to LAFCo. Moreover, the case cited by the commenter, *City of Irvine*, did not address the programmatic feasibility of requiring agricultural conservation easements statewide. Rather, the court upheld the County of Orange’s project-level finding that the use of an agricultural conservation easement to mitigate for the loss of agricultural resources was infeasible, and thus did not violate CEQA, based on the specific facts presented, including the overall scarcity of remaining farmland in Orange County, the high cost of remaining farmland in Orange County based on its non-agricultural development potential, and the fact that large-scale agriculture is no longer viable in Orange County. None of the factors currently exists in unincorporated Ventura County, as explained above.

Consistency with the Non-Coastal Zoning Ordinance and Minimum Lot Size Requirements Comments also assert that the draft EIR does not provide evidence of whether Mitigation Measure AG-2 is in conflict with the County Non-Coastal Zoning Ordinance (NCZO) or County’s other minimum lot size requirements such as found within the Coastal Zoning Ordinance (CZO). The County has reviewed this comment and determined there are no conflicts between Mitigation Measure AG-2 and the NCZO, including minimum lot size requirements. The minimum lot sizes identified in the County’s zoning ordinances, including NCZO (Article 3: Establishment of Zones Boundaries and Maps) and CZO (Section 8171-9 – Establishment of Use Zones), are independent of the of the minimum threshold acreages identified within Mitigation Measure AG-2 for evaluation of impacts to Important Farmland. Whereas the County’s NCZO zoning categories and their accompanying development standards (including minimum lot size) are land use designations which determine appropriate land uses under the County’s jurisdictional land use authority, Important Farmland designations identify land of statewide importance as identified by the State’s Farmland Mapping and Monitoring Program which is administered by the California Department of Conservation. Since the County’s zoning designations are independent of the State’s farmland designations, one cannot conflict with the other.

Revisions to Mitigation Measure AG-2

As stated above, this Mitigation Measure AG-2 has been revised to (1) except farmworker housing projects from the requirements Mitigation Measure AG-2; (2) reduce the farmland

mitigation ratio from 2:1 to 1:1, and (3) require the deposit of funds to the County to contract with a qualified third-party agricultural economic consultant to review and advise the Planning Division and Agricultural Commissioner regarding the establishment and implementation of the agricultural conservation easement(s). The term “offsite” has also been clarified in the mitigation measure. The revised mitigation measure is as follows:

Implementation Program AG-X: Establish an Agricultural Conservation Easement

Applicants for discretionary projects that would result in direct or indirect loss of Important Farmland in exceedance of the acreage loss thresholds listed in the table below shall be required to ensure the permanent protection of offsite farmland of equal quality at a ~~2:1~~ 1:1 ratio (acres preserved: acres converted) through the establishment of an offsite agricultural conservation easement. “Offsite” means an area that is outside of the project’s permit boundaries if applicable, would not be disturbed by the project with respect to agricultural soils or production, and that otherwise complies with the below-stated requirements. Discretionary projects to develop and provide housing for use by farmworkers and their families are not subject to this agricultural conservation easement requirement.

| <u>General Plan Land Use Designation</u> | <u>Important Farmland Inventory Classification</u> | <u>Acres Lost</u> |
|------------------------------------------|----------------------------------------------------|-------------------|
| <u>Agricultural</u> | <u>Prime/ Statewide</u> | <u>5</u> |
| | <u>Unique</u> | <u>10</u> |
| | <u>Local</u> | <u>15</u> |
| <u>Open Space/Rural</u> | <u>Prime/ Statewide</u> | <u>10</u> |
| | <u>Unique</u> | <u>15</u> |
| | <u>Local</u> | <u>20</u> |
| <u>All Land Use Designations</u> | <u>Prime/ Statewide</u> | <u>20</u> |
| | <u>Unique</u> | <u>30</u> |
| | <u>Local</u> | <u>40</u> |

If the Planning Division, in consultation with the Agricultural Commissioner, determines that a discretionary project would result in direct or indirect loss of Important Farmland in exceedance of the acreage loss thresholds listed in the table above, the project applicant shall prepare and submit a report for the review and approval of the Planning Division in consultation with the Agricultural Commissioner which identifies a minimum of one proposed potential mitigation site suitable for ensuring the permanent protection of offsite farmland of equal quality at a ~~2:1~~ 1:1 ratio (acres preserved: acres converted) through the establishment of ~~an~~ one or more offsite agricultural conservation easements. The preservation of more than one site agricultural conservation easement may be considered in order to meet the required number of acres. The applicant shall also deposit funds with the County to contract with a qualified third-party agricultural economic consultant to review and advise the Planning Division and Agricultural Commissioner regarding the establishment and implementation of the agricultural conservation easement(s). The contents of the report shall be determined, reviewed, and approved by the Planning Division in consultation with the Agricultural Commissioner (hereafter referred to as the “reviewing agencies”), and shall include information necessary for the reviewing agencies and a qualified entity responsible for

holding the conservation easement (e.g., a land trust organization) to determine the viability of the proposed mitigation site(s) for the establishment of a permanent agricultural conservation easement.

Among the factors necessary for approval by the reviewing agencies, the proposed mitigation site(s) shall be located in the County of Ventura unincorporated area, must not already have permanent protection, and must be equivalent to or greater than the type of Important Farmland (e.g., Unique farmland) that would be converted by the project, and must be of sufficient size to be viable for long term farming use as determined by the County. Among other terms that may be required by the reviewing agencies in consultation with a qualified entity, the terms of an agricultural conservation easement shall include a requirement that it run with the land. There must also be a provision for annual monitoring by the qualified entity or its representative to ensure adherence to the terms of the conservation easement. Project applicants are responsible for all costs incurred by the County and the qualified entity to successfully implement this mitigation measure. Proof of the successful establishment of an agricultural conservation easement shall be provided to the Planning Division prior to issuance of a zoning clearance for inauguration of the project.

MR-6 Master Response 6: Background Report for the 2040 General Plan

The County received several comments from organizations and individuals that expressed concern about use of the Background Report as the basis for the discussion of the existing environmental setting in the draft EIR. These comments generally expressed two concerns: whether this approach violates CEQA requirements for an EIR and inhibits the public's ability to review and understand the draft EIR analysis and conclusions, and whether the data provided in the Background Report are sufficiently accurate to inform the EIR analysis.

This master response explains the County's approach to describing the existing environmental setting in the draft EIR and the rationale and basis for the approach, including the EIR's consistency with CEQA requirements for the description of the environmental setting. It also addresses the accuracy of the information provided in the Background Report.

The draft EIR appropriately uses the Background Report to describe the existing environmental setting. The draft EIR and Background Report each provide general discussion about the role of the Background Report in the draft EIR, the draft EIR provides cross references to the specific Background Report sections that contain the relevant details on the regulatory and physical environmental setting, and the draft EIR impact analysis sections describe the relevant existing environmental conditions and regulatory setting used to perform the EIR's impact analysis and support the impact conclusions. In addition, the County made the Background Report and draft EIR (and other project materials) available in print and electronic forms and on its Resource Management Agency (RMA) and General Plan Update websites, at the RMA Planning Division Counter (hard-copy), and in electronic format at 13 libraries throughout the unincorporated county to facilitate the accessibility of this information to the public and decision-makers. The County also included the entire 2020 Background Report in the draft EIR as Appendix B.

The information in the Background Report is accurate and provided at an appropriate scale and level of detail to inform the draft EIR's programmatic analysis of how 2040 General Plan implementation would affect physical environmental conditions. Overall, this approach to the draft EIR and Background Report allowed the County to make detailed, consistent environmental setting information available to decision-makers and the public in a manner consistent with CEQA while presenting a concise impact analysis supported by substantial evidence.

MR-6.A EXISTING SETTING IN ENVIRONMENTAL IMPACT REPORTS

Section 15125 of the State CEQA Guidelines requires that EIRs include “a description of the physical environmental conditions in the vicinity of the project” because “[k]nowledge of the regional setting is critical to the assessment of environmental impacts.” Moreover, “(t)he environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant” and its description “shall be no longer than is necessary to provide an understanding of the significant effects of the proposed project and its alternatives.” The purpose of describing existing environmental conditions, “is to give the public and decision makers the most accurate and understandable picture practically possible of the project’s likely near-term and long-term impacts.”

Generally, the lead agency should describe physical environmental conditions as they exist at the time the notice of preparation is published. The notice of preparation for the 2040 General Plan EIR was released on January 14, 2019.

The environmental setting relevant to EIR analyses includes both existing physical environmental conditions and the regulatory setting of federal, State, and local laws, regulations, policies, and ordinances. In practice, lead agencies have employed different approaches to describing the environmental setting in EIRs. Often, the discussion of existing conditions immediately precedes the impact analysis. The full discussion of the environmental setting is also frequently included as a standalone component or chapter of an EIR, separate from impact analysis chapters. CEQA does not prescribe a specific manner in which information should be presented.

MR-6.B OTHER RELEVANT CEQA REQUIREMENTS

In its definition of an “Environmental Impact Report,” CEQA explains that where “information or data relevant” to an EIR “is a matter of public record or generally available to the public (it) need not be repeated in its entirety” in an EIR “but may be specifically cited as the source for conclusions” so long as it is “briefly described,” its relationship to the EIR explained, and available for public inspection. (Pub. Res. Code, § 21061). In this instance, the information and data relied upon in the draft EIR are briefly described within the setting and impact analysis sections of the draft EIR, and the Background Report was made available in the draft EIR as Appendix B, on the same 2040 General Plan webpage where the draft EIR and other project materials were published, and as a component of every printed copy distributed for public review. Consistent with Section 15147 of the State CEQA Guidelines, the summarized information contained in the draft EIR is “sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public.”

Use of the Background Report as the basis of the setting in the draft EIR is also consistent with the State CEQA Guidelines which describe methods public agencies should employ to reduce delay and paperwork in the CEQA environmental review process. These include:

- ▶ Section 15006(l) states that lead agencies should combine environmental documents with other documents such as general plans pursuant Section 15166. In turn, Section 15166 states that CEQA requirements for an EIR “will be satisfied by using the general plan...as the EIR.” In this case, the County has used one component of the 2040 General Plan – the Background Report – to inform the draft EIR.
- ▶ Section 15006(n) by “reducing the length Environmental Impact Reports by means such as setting appropriate page limits (15141)”;
- ▶ Section 15006(o) by “preparing analytic rather than encyclopedic” EIRs (15142); and
- ▶ Section 15006(s) by “[e]mphasizing the portions of the Environmental Impact Report that are useful to decision makers and the public and reducing emphasis on background material” (15143).

By providing specific references to and summaries of relevant Background Report information in the draft EIR while including the full Background Report in the draft EIR as Appendix B, the County was able to substantially reduce the length of the draft EIR by reducing emphasis on non-essential background material and focus the draft EIR on analytic information useful to decision makers and the public (e.g., the significant environmental impacts of the 2040 General Plan and the mitigation measures and alternatives to avoid or substantially lessen those impacts).

Thus, the EIR sections and impact discussion not only discloses relevant information to provide substantial evidence in support of the draft EIR’s factual conclusions, the approach used in this draft EIR fulfills the essential function of an EIR by providing sufficient detail to enable those who did not participate in preparation of the document to understand, and consider meaningfully, the environmental issues raised by implementation of the 2040 General Plan.

MR-6.C OVERVIEW OF THE GENERAL PLAN BACKGROUND REPORT AND ITS INCLUSION IN THE DRAFT EIR

A general plan is typically comprised of two primary documents: a background report and a policy document. To limit both duplication of effort and the potential for inconsistent use of data between the General Plan and its EIR, the County designed the Background Report to establish the physical environmental setting and regulatory setting for the 2040 General Plan EIR. The County has communicated its intention to use the Background Report as the “environmental setting” of the 2040 General Plan EIR since at least March 2017, when it first released the Background Report for public review (Ventura County 2017:1-7). In Chapter 4, “Environmental Impact Analysis” the draft EIR explains that, “(t)he existing conditions against which potential impacts are evaluated are based on the environmental and regulatory setting information published in the January 2020 Background Report, which is included in this draft EIR as Appendix B.” (page 4-1)

As further described in the draft EIR, the Background Report was released for public review in March 2017, followed by a revised public review draft in October 2017, and subsequent revisions in January 2018. The Background Report was received and filed by the Board of Supervisors on January 23, 2018. (page 4-1)

The draft EIR also explains that during the time between publication of the draft Background Report in January 2018 and completion of the draft EIR, some changes occurred relative to the environmental and regulatory environments (page 4-1). Where changes to the environmental or regulatory setting (e.g., new information, regulatory changes) occurred after publication of the January 2018 Background Report, and where these changes are relevant to understanding the 2040 General Plan's potential environmental impacts, additional background information was provided in the appropriate EIR resource section (Sections 4.1 through 4.17).

In addition, the following discrete updates were included in the January 2020 Background Report released in conjunction with the draft EIR. These revisions incorporate the Habitat Connectivity and Wildlife Corridors (HCWC) overlay zones adopted by the Board of Supervisors in March 2019 and a revised Wildfire History Map which includes the Thomas Fire burn area described below:

- ▶ Within Section 8.2, "Biological Resources," a map and description of regulations proscribing siting and permitting standards for certain new development in the Habitat Connectivity and Wildlife Corridors (HCWC) overlay zones was added to reflect amendments to the Non-Coastal Zoning Ordinance (Habitat Connectivity and Wildlife Corridor Ordinances (Ord. 4537 & Ord. 4539)) adopted by the County on March 12, 2019. These changes were added into the subsection on Habitat Connectivity/Wildlife Corridors in the January 2020 Background Report.
- ▶ Within Section 11.3, "Wildfire Hazards," the Wildfires History Map (Figure 11-10 of the January 2020 Background Report) was updated to reflect wildfires in the county through 2018, including the Thomas Fire that altered parts of Ventura and Santa Barbara counties in late 2017.

The Errata sheet included in the beginning of the January 2020 Background Report also includes the information above describing the Background Report and its relationship to the draft EIR.

As explained further below, although the introductions to the environmental analysis in the draft EIR and Background Report include general statements referring the reader to the Background Report for setting information, this explanation of approach is not the extent to which the relevant information in the Background Report is summarized. The reader is not, as asserted by commenters, responsible for searching through the entire Background Report to identify the pertinent information. In fact, the draft EIR environmental resource sections (4.1 to 4.17) provide cross references to the specific Background Report sections that contain the relevant details on the regulatory and physical environmental setting, and the draft EIR impact analysis sections describe the relevant existing environmental conditions and regulatory setting used to perform the impact analysis and support the impact conclusions. The reader is offered a clear roadmap and summary of relevant information used to complete the analysis and make impact determinations consistent with the requirements outlined in Section 15147 of the State CEQA Guidelines.

MR-6.D REFERENCE TO AND USE OF BACKGROUND REPORT INFORMATION IN DRAFT EIR IMPACT ANALYSIS

The setting discussion of each environmental resource topic section of the draft EIR (Sections 4.1 to 4.17) includes specific cross references to the Background Report sections applicable to the environmental impact analysis. For example, Section 4.1, “Aesthetics, Scenic Resources, and Light Pollution,” in the draft EIR clearly refers the reader to Section 8.3, “Scenic Resources,” of the Background Report for details regarding the regulatory setting (page 4.1-1) and environmental setting (page 4.1-12) for the analysis of aesthetic impacts. Moreover, the draft EIR environmental impact analysis sections also include specific references to environmental and regulatory setting information used to perform the impact analysis and support the impact conclusions. For example, the draft EIR’s discussion of the impact assessment methodology for aesthetics and the impact analysis discussions include clear references to Figure 8-7 of the Background Report showing areas protected by the Scenic Resource Protection Overlay Zone, and summarize the information shown on this figure from the Background Report (draft EIR page 4.1-12; page 4.1-20; page 4.1-24).

MR-6.E AVAILABILITY OF THE BACKGROUND REPORT AND DRAFT EIR

The draft EIR was available to the public in both print and electronic forms. On Ventura County’s General Plan website (<https://vc2040.org/review/documents>), reviewers can select links for both the draft EIR (as a complete document or by chapter and resource section) and the Background Report (as both a complete report and by chapter). The documents are easily navigable and can be searched electronically. The reviewer can access the appropriate chapter of the Background Report by selecting a hyperlink on the same webpage where all other components of the Draft EIR analysis are available and navigate directly to the applicable information. Further, as described above the entire January 2020 Background Report was included in the draft EIR as Appendix B.

MR-6.F BACKGROUND REPORT ACCURACY AND TIMELINESS

Commenters expressed concern about the accuracy and timeliness of the Background Report used as the basis for the discussion of existing setting in the draft EIR. The Background Report is an objective assessment of current environmental and regulatory conditions in effect at the time of publication. Several iterations have been prepared and published for review by the public and decision-makers as described above and to reflect and keep up with changing conditions. The Background Report presents a “snapshot” of existing conditions and trends in Ventura County and establishes the conditions against which potential impacts are evaluated. Because the existing setting is used to describe current conditions and to frame and understand the magnitude of the change in physical environmental conditions that would result from implementation of the 2040 General Plan, only the information pertinent to the subsequent analysis, as dictated by the applicable thresholds of significance, need be included. There is no CEQA requirement for an EIR to disclose existing physical conditions or regulations that are not relevant to the environmental impact analysis provided in the EIR. Consistent with CEQA Guidelines Section 15143, this approach emphasizes information useful to decision makers and the public and reduces emphasis on background material. In addition, the countywide scale of the mapping and the level of detail provided in the EIR and Background Report for the environmental setting are appropriate and sufficient to perform the

programmatic evaluation of direct and indirect impacts that would result in the county under implementation of the 2040 General Plan. Specific issues raised by commenters regarding the accuracy of Background Report information or data are addressed in this chapter in the individual responses to those comments. Where applicable, the individual responses acknowledge any errors in Background Report data or information raised in public comments, and explain how and where those errors have been corrected in the final EIR.

MR-7 Master Response 7: Comments Regarding Recirculation of the Draft EIR

The County received several comments asserting that the draft EIR should be revised and recirculated for public review before it can be certified. This master response provides a detailed discussion of CEQA requirements for recirculation of an EIR and explains that because none of the issues raised in public comments on the draft EIR meet CEQA requirements for recirculation, the County has not recirculated the EIR before presenting it to the County's decision-makers for review and certification.

MR-7.A CEQA REQUIREMENTS FOR RECIRCULATION OF AN EIR

CEQA requires recirculation of a draft EIR when significant new information is added to the EIR after the EIR is released for public review and before certification that changes the EIR "in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse effect of the project or a feasible way to mitigate or avoid such an effect" or the draft EIR "was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded" (CEQA Guidelines, § 15088.5(a)). In this context "information" can include changes in the project or environmental setting as well as additional data or other information.

State CEQA Guidelines Section 15088.5(a) defines "significant new information" as a disclosure showing that:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented;
- (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;
- (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it; and
- (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Recirculation is not required where information is added to the EIR that merely clarifies, amplifies, or makes insignificant modifications in an adequate EIR (CEQA Guidelines, § 15088.5(b)).

State CEQA Guidelines Section 15088.5 was adopted by the California Natural Resources Agency to incorporate the California Supreme Court's decision in *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112 (*Laurel Heights II*) into the guidelines. According to the Supreme Court, the rules governing recirculation of a draft EIR are “not intend[ed] to promote endless rounds of revision and recirculation of EIRs” (*Laurel Heights II, supra*, 6 Cal.4th at p. 1132). Recirculation is “an exception, rather than the general rule” (*Mount Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184, 221).

MR-7.B PUBLIC COMMENTS ON THE DRAFT EIR

The specific reasons for recirculation raised in public comments on the draft EIR are responded to throughout these responses to comments, including the master responses and responses to individual comments. Depending on the issue raised, the responses to comments do one or more of the following:

- ▶ describe how the significant environmental issues raised in the comment letters were adequately addressed and supported with substantial evidence in the draft EIR;
- ▶ provide new information or data or corrections to the text of the draft EIR, where such new information or revisions are warranted;
- ▶ expand on, or provide minor clarifications to, information already included in the draft EIR where comments question the accuracy or clarify of the information provided; and
- ▶ for alternatives and mitigation measures raised in the comments that are considerably different than those included in the draft EIR, either: (1) explain the reasons the alternative or mitigation measure is infeasible; or (2) explain that the alternative or mitigation measure is feasible, proposed to be implemented, and would not result in a new significant environmental impact.

After detailed review of the public comments and other evidence in the record, the County has determined that none of the issues raised in comments on the draft EIR, responses to comments on the draft EIR, or revisions made to the draft EIR constitute “significant new information” requiring recirculation. The County has also determined that the analysis and impact conclusions of the draft EIR are adequate and supported with substantial evidence. Moreover, the County has determined that there are no disclosures demonstrating that: a new significant environmental impact not included in the draft EIR would result, either from the 2040 General Plan or a new mitigation measure; a substantial increase in the severity of an environmental impact included in the draft EIR would result that cannot be mitigated to a less than significant level; or that the County has declined to adopt a feasible project alternative or mitigation measure that would clearly lessen the environmental impacts of the 2040 General Plan. The final EIR, including this master response, other master responses, responses to individual comments, revisions to the draft EIR, and other information in the record provide the substantial evidence supporting the County's decision not to recirculate the draft EIR.

2.3 COMMENTS AND RESPONSES

The written individual comments received on the draft EIR and the responses to those comments are provided below. The comment letters are reproduced and are followed by the response(s). Transmittal emails and letter attachments that do not either contain comment on the content or conclusions of the draft EIR or raise any significant environmental issues for which a response is required are provided in Attachment 1 to this final EIR. Where a commenter has provided multiple comments, each comment is indicated by a line bracket and an identifying number in the margin of the comment letter.

The County has included all comments on the draft EIR that were received or post marked by February 27, 2020. The County received 273 comment letters during the comment period for the draft EIR. Of these, the County determined that 31 were duplicative.

2.4 AGENCIES



SENT VIA EMAIL

Letter
A1

February 27, 2020

Ventura County Resource Management Agency
Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Avenue, L #1740
Ventura, CA 93009-1740

Re: DEIR for Ventura County 2040 General Plan

Dear Ms. Curtis:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the County’s General Plan update. The Coastal Conservancy has been involved in planning and funding habitat restoration, public access and other projects in Ventura County for several decades.

A1-1

Our comments relate to Section 4.2 Agriculture and Forestry. The DEIR identifies potential impacts and mitigation measures for agricultural resources. Specifically, the DEIR identifies Impact 4.2-1: Loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance (4.2-9) and two mitigation measures which would be added to the General Plan. These policies call for avoidance of direct loss of farmland and call for mitigation of loss at a 2:1 ratio through the establishment of an offsite agricultural conservation easement.

The Coastal Conservancy is currently working with local partners at Ormond Beach and on the Satna Clara River to develop and implement habitat restoration and public access plans for those areas. Ormond Beach, an area with especially important coastal wetland habitat, has been identified as being very much at risk from sea level rise. As a consequence, the Coastal Conservancy, The Nature Conservancy, and the City of Oxnard have been looking to acquire neighboring agricultural properties to allow the dunes, wetlands, and uplands to migrate inland as sea level rises. These properties would transition from agriculture to these threatened coastal habitats which would ensure the survival of the Ormond Beach wetlands complex and would act to provide a buffer to neighboring communities in South Oxnard at risk from sea level rise.

A1-2

1515 Clay Street, 10th Floor
Oakland, California 94612-1401
510-286-1015 Fax: 510-286-0470

California State Coastal Conservancy

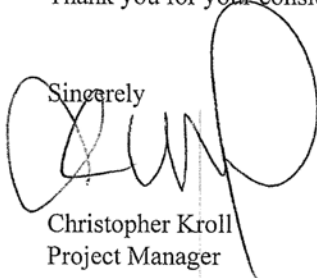
*Ventura County Resource Management Agency
February 27, 2020
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Similarly, the Coastal Conservancy has been funding the acquisition of thousands of acres of river-fronting land by The Nature Conservancy along the Santa Clara River since 2001 for ultimate habitat restoration and public access purposes to realize a Santa Clara River Parkway from the mouth of the river to the county line. The river is one of the last largely free flowing coastal rivers in southern California. But many areas have been encroached upon by development and adversely impacted by invasive non-native species such as *Arundo donax*. The Nature Conservancy has acquired some properties intended for habitat restoration and public access which currently support agriculture.

The proposed mitigation measures mentioned above may add significant additional costs and hurdles to implementing long-range planning for habitat restoration at Ormond Beach and along the Santa Clara River. These costs may be prohibitive to moving forward with implementing restoration plans for these areas.

We recommend that the County include exclusions to the above referenced mitigation measures for habitat restoration projects and related public access projects such as outlined above at Ormond Beach and the Santa Clara River.

Thank you for your consideration. Please contact me if I can provide additional information.

Sincerely

Christopher Krull
Project Manager

A1-2
cont.

| | |
|----------------------|--------------------------------------------------------------------------------------------------|
| Letter A1 | California Coastal Conservancy Christopher Kroll, Project Manager February 27, 2020 |
|----------------------|--------------------------------------------------------------------------------------------------|

A1-1 The California Coastal Conservancy's involvement in planning and funding projects in Ventura County is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

A1-2 The commenter refers to two mitigation measures. Mitigation Measure AG-1, as included on page 4.2-16 of the draft EIR, would require that the County include a policy in the 2040 General Plan that requires discretionary development on Important Farmland be conditioned to avoid direct loss of Important Farmland as much as feasibly possible. Mitigation Measure AG-2, as included on page 4.2-16 of the draft EIR, would require that the County include a policy in the General Plan that requires discretionary projects resulting in a certain acreage of loss of Important Farmland protect offsite farmland at a 2-to-1 ratio of acres preserved to acres converted. The commenter does not specify how it believes these mitigation measures would add significant costs to its habitat restoration and public access plans for Ormond Beach and the Santa Clara River. It appears, however, that the commenter is suggesting that these projects would require conversion of agricultural lands, which then may be subject to the conservation easement requirements outlined in Mitigation Measure AG-2, increasing costs of restoration projects.

Mitigation Measures AG-1 and AG-2 outline requirements that are triggered for discretionary projects subject to the County's jurisdiction. Discretionary approvals are needed from the County for certain projects, including commercial and industrial projects, conditional use permits, variances, tract and parcel maps, and zoning ordinance and general plan amendments. Within the Coastal Zone, a Coastal Development Permit may be required for habitat restoration projects to authorize the methodology and removal of invasive plants in and amongst sensitive plants or Environmentally Sensitive Habitat Areas. Outside the Coastal Zone restoration projects may require discretionary approval if a subdivision action (such as approval of a conservation subdivision) was needed. Other than projects involving the creation of a conservation subdivision, habitat restoration projects in the non-coastal zone generally do not trigger the need for a discretionary approval by the County. The acquisition of lands for wildlife conservation and certain small habitat restoration projects are among the classes of categorically exempt projects as provided in Sections 15313 and 15333 of the California Environmental Quality Act Guidelines, respectively.

Without a discretionary approval from the County, the requirements of Mitigation Measure AG-1 and Mitigation Measure AG-2 would not apply. Therefore, it is unlikely that these measures would add to the costs of habitat restoration and associated projects. Nonetheless, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

Regarding the general feasibility of Mitigation Measure AG-2, including cost of implementation, refer to Master Response MR-5.



California
Department of Conservation
Division of Mine Reclamation

Gavin Newsom, Governor
David Shabazian, Director

**Letter
A2**

February 27, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Copy sent via email: GeneralPlanUpdate@ventura.org

SUBJECT: Ventura County 2040 General Plan (SCH # 2019011026); Draft Environmental Impact Report (EIR)

Dear Ms. Curtis:

Thank you for including the Department of Conservation's Division of Mine Reclamation (Division) in the environmental review process for the Ventura County 2040 General Plan Draft EIR. The project as described in the Draft EIR proposes to update the County of Ventura's 2040 General Plan and will identify the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including but not limited to land use, climate change, agriculture, transportation, hazards, public facilities, health and safety, environmental justice, and resource conservation.

The Division has review responsibilities associated with lead agency implementation of the Surface Mining and Reclamation Act of 1975 (SMARA; Public Resources Code [PRC] Section 2710 et seq.). SMARA provides a comprehensive surface mining and reclamation policy to assure that adverse environmental impacts are minimized, and mined lands are reclaimed. The Division's primary focus is on existing surface mining operations and the return of those mined lands to a usable and safe condition while giving consideration to environmental and recreational values; however, the Division also addresses issues related to abandoned (pre-1976) legacy mines.

A2-1

The Division has reviewed the subject Draft EIR pursuant to the California Environmental Quality Act (CEQA) and State CEQA Guidelines and offers these comments.

1. The Division recommends editing Section 1.4: Lead, Responsible, and Trustee Agencies (Page 1-5) from, "...the Department of Conservation, which has responsibility for approving mining Reclamation Plans..." to "...the Department of Conservation, which has responsibility for reviewing and commenting on surface mine Reclamation Plans...", as this better reflects the Division's role and SMARA statutes (PRC Section 2772.1).

A2-2

State of California Natural Resources Agency | Department of Conservation
801 K Street, MS 09-06, Sacramento, CA 95814
conservation.ca.gov | T: (916) 323-9198 | F: (916) 322-4862

2. The County should consider updating surface mining ordinances, which were last certified by the State Mining and Geology Board on November 10, 1999. As a result of Assembly Bill 1142 and Senate Bill 209, significant statutory changes to SMARA went into effect January 1, 2017. These changes provided updates to the statutes governing approval of reclamation plans and financial assurances. Additionally, during the recent Lead Agency Review and Assistance (LARA) Program review, the Division recommended the County update their surface mining ordinance.

PRC Section 2774(a) states that "[E]very lead agency shall adopt ordinances in accordance with state policy that establish procedures for the review and approval of reclamation plans and financial assurances and the issuance of a permit to conduct surface mining operations... [T]he ordinances shall establish procedures ...to ensure that the ordinances continue to be in accordance with state policy." Additionally, PRC Section 2757 states that the SMARA statutes "shall be used as standards by lead agencies in preparing specific and general plans, including the conservation and land use elements of the general plan and zoning ordinances."

A2-3

Please include the Division on the distribution list for this project and send the Division any subsequent project documents (e.g., hearing notices or supplemental environmental documents), as well as a copy of the certified final Environmental Impact Report, to the address below, attention to Carol E. Atkins, Division of Mine Reclamation.

A2-4

If you have any questions, please contact either of us at (916) 323-9198.

Sincerely,



Carol E. Atkins, Manager
Environmental Services Unit



Paul Fry, Manager
Engineering and Geology Unit

cc (sent by email):

State Clearinghouse (state.clearinghouse@opr.ca.gov)

Department of Conservation, Office of Legislative and Regulatory Affairs
(OLRA@conservation.ca.gov)

| | |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Letter A2 | California Department of Conservation, Division of Mine Reclamation Carol E. Atkins, Manager, Environmental Services Unit Paul Fry, Manager, Engineering and Geology Unit February 27, 2020 |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

A2-1 The Department of Conservation, Division of Mine Reclamation’s responsibilities and primary focus are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

A2-2 As suggested by the comment, the text of the second paragraph of Section 1.4, “Lead, Responsible, and Trustee Agencies,” on page 1-5 of the draft EIR is revised as follows:

Responsible agencies are agencies other than the lead agency that have discretionary power over carrying out or implementing a specific component of the general plan or for approving a project (such as an annexation) that implements the goals and policies of the general plan. Agencies that may be responsible agencies include: the California Department of Transportation, which has responsibility for approving future improvements to the state highway system; the Department of Conservation, which has responsibility for ~~approving~~ reviewing and commenting on surface mining Reclamation Plans pursuant to the Surface Mining and Reclamation Act; and the Local Agency Formation Commission of Ventura County, which has responsibility for approving any annexations within the county that might occur over the life of the 2040 General Plan.

A2-3 The comment addresses the County’s existing surface mining ordinance and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

A2-4 The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.



State of California – Natural Resources Agency
 DEPARTMENT OF FISH AND WILDLIFE
 South Coast Region
 3883 Ruffin Road
 San Diego, CA 92123
 (858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
 CHARLTON H. BONHAM, Director

Letter
 A3

February 26, 2020

Mrs. Susan Curtis
 Ventura County
 800 South Victoria Lane
 Ventura, CA 93009

Subject: Draft Environmental Impact Report for the Ventura County 2040 General Plan Update, Ventura County

Dear Mrs. Susan Curtis:

The California Department of Fish and Wildlife (CDFW) has reviewed the above-referenced Draft Environmental Impact Report (DEIR) for the Ventura County 2040 General Plan Update (GPU). Thank you for the opportunity to provide comments and recommendations regarding those activities detailed in the GPU that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the GPU that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code. Further, CDFW understands that future development projects may be tiered off this environmental document. As such, future development projects, as detailed in the GPU, will be collectively referred to as "Projects." This is not to say that each comment below is relevant to each of the Projects discussed in the GPU, but that the comments listed below should be considered when a specified project may impact any of the biological resources discussed below.

A3-1

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & Game Code, §§ 711.7, subdivision (a) & 1802; Public Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & Game Code, § 1600 *et seq.*). Likewise, to the extent implementation of the GPU as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA) (Fish & Game Code, § 2050 *et seq.*), or state-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & Game Code, §1900 *et seq.*), CDFW recommends the GPU proponent obtain appropriate authorization under the Fish and Game Code, as necessary.

A3-2

Mrs. Susan Curtis
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Project Description and Summary

Objective: The County of Ventura is undertaking a comprehensive update of its General Plan. The County's current General Plan was most recently updated in 2005 and has not been comprehensively updated since 1988. The GPU is anticipated to be adopted in 2020 and will set forth the County's vision of its future and express the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including land use, health and safety, and resource conservation out to the year 2040. In addition, all area plans, specific plans, subdivisions, public works projects, and zoning decisions must be found to be consistent with the direction provided in the County's General Plan.

A3-3

Location: Ventura County (county-wide).

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the County in adequately identifying, avoiding, and/or mitigating Projects' (as detailed in the GPU) significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Additional comments or other suggestions may also be included to improve the document.

Project Description and Related Impact Shortcoming

Comment #1: Impacts to Special-Status Plant Species

Issue: The summation of incremental impacts from the Projects and land use strategies, disclosed in the GPU, may result in a significant cumulative impact with regards to biological resources. Further, the Projects may contribute to an increase in habitat fragmentation and development upon native habitats.

Specific impact: CDFW considers plant communities, alliances, and associations with a statewide ranking of S1, S2, S3 and S4 as sensitive and declining at the local and regional level (Sawyer et al. 2008). An S3 ranking indicates there are 21-80 occurrences of this community in existence in California, S2 has 6-20 occurrences, and S1 has less than 6 occurrences. The Projects may have direct or indirect effects to these sensitive species.

A3-4

Why impact would occur: The implementation of Projects may include grading, vegetation clearing for construction, road maintenance, and other activities that may result in direct mortality, population declines, or local extirpation of sensitive plant species.

Evidence impact would be significant: Impacts to special status plant species should be considered significant under CEQA unless they are clearly mitigated below a level of significance. Inadequate avoidance, minimization, and mitigation measures for impacts to these sensitive plant species will result in a project(s) continuing to have a substantial adverse direct, indirect, and cumulative effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or U.S. Fish and Wildlife Service (USFWS).

Recommended Potentially Feasible Mitigation Measure(s):

A3-5

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Mitigation Measure #1: CDFW recommends including avoidance, minimization, and/or mitigation measure language articulating the need to perform focused surveys for sensitive/rare plants on-site and disclosing the results prior to the implementation of Projects. Based on the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2018) (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959>), a qualified biologist should “conduct surveys in the field at the time of year when species are both evident and identifiable. Usually this is during flowering or fruiting.” Final CEQA documentation, for a specified project, should provide a thorough discussion on the presence/absence of sensitive plants on-site and identify measures to protect sensitive plant communities from project-related direct and indirect impacts.

Mitigation Measure #2: In 2007, the State Legislature required CDFW to develop and maintain a vegetation mapping standard for the State (Fish & Game Code, § 1940). This standard complies with the National Vegetation Classification System, which utilizes alliance and association-based classification of unique vegetation stands. CDFW utilizes vegetation descriptions found in the Manual of California Vegetation (MCV), found online at <http://vegetation.cnps.org/>. To determine the rarity ranking of vegetation communities on a specific project site(s), the MCV alliance/association community names should be provided as CDFW only tracks rare natural communities using this classification system.

Mitigation Measure #3: CDFW recommends avoiding any sensitive natural communities found within or near Projects. If avoidance is not feasible, mitigating at a ratio of no less than 5:1 for impacts to S3 ranked communities and 7:1 for S2 communities should be implemented. This ratio is for the acreage and the individual plants that comprise each unique community. All revegetation/restoration areas that will serve as mitigation should include preparation of a restoration plan, to be approved by USFWS and CDFW prior to any ground disturbance. The restoration plan should include restoration and monitoring methods; annual success criteria; contingency actions should success criteria not be met; long-term management and maintenance goals; and, a funding mechanism to assure for in perpetuity management and reporting. Areas proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (Assembly Bill 1094; Government Code, §§ 65965-65968).

Comment #2: Survey Protocols for Special-Status Wildlife

Issue: There is no mention of protocol surveys for special-status wildlife. Projects proposed to occur within the geographical limits of the GPU may impact special status species. As such, we recommend including special-status protocol survey language as an avoidance, minimization and/or mitigation measure(s).

Why impacts would occur: A lack of protocol surveys will likely lead to impacts to a variety of sensitive species. Protocol surveys are necessary to identify listed species and supporting habitat necessary for their survival.

Evidence impact would be significant: Ground clearing and construction activities could lead to the direct mortality of a listed species or species of special concern (SSC). The loss of occupied habitat could yield a loss of foraging potential, nesting sites, basking sites, or refugia

A3-5
 cont.

A3-6

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and would constitute a significant impact absent appropriate mitigation. CDFW considers impacts to CESA-listed and Species of Special Concern (SSC) a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures.

A3-6
cont.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends that Projects follow appropriate survey protocol for a given species. The survey(s) should be performed based on the species found, or likely to occur, on a respective project site(s), the mitigative response to which will vary.

The following mitigation measures are suggested by CDFW for impacts to reptiles:

Mitigation Measure #1: To mitigate impacts to SSC, CDFW recommends focused surveys for the species. Surveys should typically be scheduled when these animals are most likely to be encountered, usually conducted between June and July. To achieve 100 percent visual coverage, CDFW recommends surveys be conducted with parallel transects at approximately 20 feet apart and walked on-site in appropriate habitat suitable for each of these species. Suitable habitat consists of areas of sandy, loose and moist soils, typically under the sparse vegetation of scrub, chaparral, and within the duff of oak woodlands.

Mitigation Measure #2: In consultation with qualified biologist familiar with the life history of each of the SSC, a relocation plan (Plan) should be developed. The Plan should include, but not be limited to, the timing and location of the surveys that will be conducted for this species, identify the locations where more intensive survey efforts will be conducted (based on high habitat suitability); identify the habitat and conditions in any proposed relocation site(s); the methods that will be utilized for trapping and relocating the individuals of this species; and the documentation/recording of the number of animals relocated. CDFW recommends the Plan be submitted to the Lead Agency for approval 60 days prior to any ground disturbing activities within potentially occupied habitat.

A3-7

Mitigation Measure #3: If construction is to occur during the low activity period (generally December through February), surveys should be conducted prior to this period, if possible. Exclusion fencing should be placed to limit the potential for re-colonization of the site prior to construction. CDFW further recommends a qualified biologist be present during ground-disturbing activities immediately adjacent to or within habitat, which supports populations of this species.

The following mitigation measures are suggested by CDFW for impacts to nesting birds:

Mitigation Measure #1: To protect nesting birds that may occur on-site, CDFW recommends that the final environmental document for Projects (as necessary) include a measure that no construction shall occur from January 1 through September 15. If construction is unavoidable during January 1 through September 15, a qualified biologist shall complete a survey for nesting bird activity within a 500-foot radius of the construction site. The nesting bird surveys shall be conducted at appropriate nesting times and concentrate on potential roosting or perch sites. If any nests of birds of prey are observed, these nests shall be designated an ecologically sensitive area and protected (while occupied) by a minimum 500-foot radius during project construction.

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The following mitigation measures are suggested by CDFW for impacts to raptors:

Mitigation Measure #1: To protect nesting birds that may occur on-site, CDFW recommends that the final environmental document, for each project (as necessary), include a measure that no construction shall occur from January 1 through September 15. If construction is unavoidable during January 1 through September 15, a qualified biologist shall complete surveys for nesting bird activity the orders *Falconiformes* and *Strigiformes* (raptors and owls) within a 500-foot radius of the construction site. The nesting bird surveys shall be conducted at appropriate nesting times and concentrate on potential roosting or perch sites. If any nests of birds of prey are observed, these nests shall be designated an ecologically sensitive area and protected (while occupied) by a minimum 500-foot radius during project construction. Pursuant to FGC Sections 3503 and 3503.5, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird or bird-of-prey.

Mitigation Measure #2: CDFW cannot authorize the take of any fully protected species as defined by state law. State fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for its take except for collecting those species for necessary scientific research and relocation of the bird species for protection of livestock (Fish & G. Code, §§ 3511, 4700, 5050, 5515). CDFW has advised the Permittee that take of any species designated as fully protected under the Fish and Game Code is prohibited. CDFW recognizes that certain fully-protected species are documented to occur on, or in, the vicinity of project areas, or that such species have some potential to occur on, or in, the vicinity of project areas, due to the presence of suitable habitat.

A3-7
 cont.

The following mitigation measures are suggested by CDFW for impacts to bats:

Mitigation Measure #1: The CEQA document should provide a discussion of potential impacts to bats, which may occur as a result from the construction and/or operation of Projects. The language should adequately disclose potential impacts and identify appropriate avoidance and mitigation measures.

Mitigation Measure #2: Measures to mitigate impacts to bats should include pre-construction surveys to detect species, use of bat roost installations, and preparation of a bat protection and relocation plan to be submitted to CDFW for approval prior to commencement of project activities, as necessary.

Comment #3: Impacts to CESA-Listed Species

Issue: There are multiple listed species with the potential to occur within the GPU footprint.

Specific Impacts: Projects related activities, such as grading, road construction, or housing construction could lead to the direct or indirect mortality of listed animal and/or plant species.

Why impact would occur: Take of special status plant species, including ESA and CESA-listed species, may occur without adequate detection, avoidance and mitigation measures.

Evidence impacts would be significant: CDFW considers adverse impacts to special status species protected by CESA and the federal Endangered Species Act (ESA, 16 U.S.C. §1531 et

A3-8

Mrs. Susan Curtis
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 February 26, 2020
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seq.), for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any state endangered, threatened, candidate species, or listed rare plant species pursuant to the NPPA that results from the Project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”. Projects may result in substantial adverse effects, either directly or through habitat modifications, on a species protected under CESA.

A3-8
 cont.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: If Projects will result in take of a plant or animal species designated as rare, endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the proponent seek appropriate take authorization under CESA prior to project implementation. Appropriate authorization from CDFW may include an ITP or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. [b], [c]). Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain CESA authorization. Revisions to the Fish and Game Code, effective January 1998, may require CDFW issue a separate CEQA document for the issuance of an ITP unless the project(s) CEQA document addresses all impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the fully mitigated requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for an ITP.

A3-9

Comment #4: Impacts to Streams

Issue: As indicated in the Hydrology/Water Quality section of the DEIR, Projects may result in impacts to State Waters. As such, the Department offers the following measures for activities that may result in significant impacts to State Waters. The following language supports streams subject to notification under Fish and Game code section 1600 *et seq.*

Specific impacts: Projects may result in the loss of streams and associated watershed function and biological diversity. Grading and construction activities will likely alter the topography, and thus the hydrology, of a Projects site.

A3-10

Why impacts would occur: Ground disturbing activities from grading and filling, water diversions and dewatering would physically remove or otherwise alter existing streams or their function and associated riparian habitat. Downstream waters and associated biological resources beyond a project(s) development footprint may also be impacted by Projects related releases of sediment and altered watershed effects.

Evidence impacts would be significant: Projects may substantially adversely affect the existing stream pattern of the site through the alteration or diversion of a stream, which absent specific mitigation, could result in substantial erosion or siltation on-site or off-site.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: Projects may result in the alteration of streams. For any such activities, the project applicant (or “entity”) must provide written notification to CDFW pursuant to section

A3-11

Mrs. Susan Curtis
 Ventura County
 February 26, 2020
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1600 *et seq.* of the Fish and Game Code. Based on this notification and other information, CDFW determines whether a Lake and Streambed Alteration Agreement (LSA) with the applicant is required prior to conducting the proposed activities. A notification package for a LSA may be obtained by accessing CDFW's web site at www.wildlife.ca.gov/habcon/1600.

CDFW's issuance of an LSA for Project that are subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the CEQA document of the Lead Agency for a project. To minimize additional requirements by CDFW pursuant to section 1600 *et seq.* and/or under CEQA, project specific CEQA documents should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSA.

A3-11
 cont.

Mitigation Measure #2: Any LSA permit issued for Projects by CDFW may include additional measures protective of streambeds on and downstream of the project. The LSA may include further erosion and pollution control measures. To compensate for any on-site and off-site impacts to riparian resources, additional mitigation conditioned in any LSA may include the following: avoidance of resources, on-site or off-site creation, enhancement or restoration, and/or protection and management of mitigation lands in perpetuity.

Comment #5: Potential Land Use Changes Specific to Cannabis

Issue: If the County allows the cultivation of cannabis in the future through the General Plan Update or otherwise CDFW recommends the following procedures and measures to minimize impacts from cannabis cultivation.

To obtain a state license to cultivate cannabis, written verification that a 1600 streambed agreement is not needed or that one has been obtained is required. Some of the issues CDFW has been challenged with during the review of cannabis cultivation applications included:

- Shallows wells, diversions and other conveyance facilities and potential effects to surface flows, riparian habitat resources that are needed for wildlife species such as steelhead, least Bell's vireo, southwestern willow flycatcher and yellow-billed cuckoo.
- Conversion of native habitat to cultivation with no replacement habitat conserved and managed in perpetuity.
- Inadequate identification and mapping of the full extent of stream resources on-site.
- Buffers and setbacks from streams that may not be sufficient over time to protect existing wildlife habitat.
- Need to integrate surveys for and impacts to plants from conversion of natural land to cultivation.

A3-12

Filing Fees

Projects, as proposed in the GPU, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & Game Code, § 711.4; Pub. Resources Code, § 21089).

A3-13

Conclusion

A3-14

Mrs. Susan Curtis
Ventura County
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We appreciate the opportunity to comment on the GPU to assist Ventura County in adequately analyzing and minimizing/mitigating impacts to biological resources. CDFW requests an opportunity to review and comment on any response that the County has to our comments and to receive notification of any forthcoming hearing date(s) for the Project [CEQA Guidelines; § 15073(e)]. If you have any questions or comments regarding this letter, please contact Baron Barrera, Environmental Scientist, at Baron.Barrera@wildlife.ca.gov or (858) 354-4114.

A3-14
cont.

Sincerely,



Erinn Wilson
Environmental Program Manager I

cc: CDFW

Steve Gibson – Los Alamitos
Baron Barrera – Los Alamitos
Brock Warmuth – Los Alamitos
Randy Rodriguez – Los Alamitos
Malinda Santonil – Los Alamitos

Susan Curtis – (Ventura County)

Scott Morgan (State Clearinghouse)

| | |
|----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Letter A3 | California Department of Fish and Wildlife Erinn Wilson, Environmental Program Manager I February 26, 2020 |
|----------------------|-------------------------------------------------------------------------------------------------------------------------|

- A3-1 The California Department of Fish and Wildlife's (CDFW's) role and jurisdiction is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- A3-2 This comment outlines CDFW's role as a responsible agency under California Environmental Quality Act (CEQA) and regulatory authority provided by Fish and Game Code and other State regulations. This comment is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- A3-3 The information summarizing the proposed 2040 General Plan is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- A3-4 This comment summarizes potential impacts to special-status plant species, as well as plant communities, alliances, and associations that could result from implementing the 2040 General Plan. The comment further defines when impacts to these resources would be significant under CEQA. The County agrees with the summary of impacts to these resources, and this comment is noted. Impacts to special-status plants, and plant communities, alliances, and associations have been analyzed in Impacts 4.4-1 and 4.4-2 of the draft EIR. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- A3-5 This comment provides recommendations for mitigation to reduce impacts on special-status plants and sensitive natural communities. The comment recommends the inclusion of avoidance, minimization, and/or mitigation measure language and requirements for focused surveys for special-status plants following CDFW protocols. These suggestions regarding mitigation measures to reduce impacts to special-status plant species were addressed in the draft EIR, and are addressed by the revised version of Mitigation BIO-1 (which is provided in full at the end of this response) as explained below.

Mitigation Measure BIO-1 (New Implementation Program COS-X: Protection of Sensitive Biological Resources) on pages 4.4-23 through 4.4-25 of the draft EIR, and as revised, states that focused surveys for special-status plants would be conducted at the project level following the most recently updated protocols recommended by natural resource agencies, including "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018]." Further, Mitigation Measure BIO-1 states that if special-status species are identified during protocol-level surveys, mitigation measures "...should adhere to the following priority to reduce adverse impacts of a proposed project to the resource: avoid impacts, minimize impacts, and compensate for impacts."

This comment also references a State-level vegetation mapping standard (i.e., the Manual of California Vegetation) and recommends that this standard be used to define sensitive natural communities in future projects under the 2040 General Plan. The draft EIR incorporates the Background Report by reference, which includes a description of sensitive natural communities (page 8-25). The draft EIR also addresses the need to use the current mapping standard on page 4.4-8: “The sensitive natural communities included in the CNDDDB are based on the Holland 1986 classification which is not consistent with the State’s current vegetation mapping and classification standards and this legacy data is currently being validated by CDFW.” However, use of this classification standard was not explicitly described in Mitigation Measure BIO-1 in the draft EIR.

Mitigation Measure BIO-1 (New Implementation Program COS-X: Protection of Sensitive Biological Resources) on pages 4.4-23–4.4-25 of the DEIR has been updated to reflect the requirement of mapping vegetation communities using the Manual of California Vegetation standards before project implementation, as shown below.

This comment also recommends that sensitive natural communities should be avoided and recommends a mitigation ratio of 5:1 for S3 ranked communities and 7:1 for S2 ranked communities. The comment further describes requirements for revegetation/restoration areas, including restoration plans and requirements therein. The commenter did not provide any regulatory basis (e.g., California Fish and Game Code) or other justification for these recommended mitigation ratios, and the County is not aware of any official guidance regarding mitigation ratios for S2 or S3 ranked communities other than reducing impacts to less than significant under CEQA.

Mitigation Measure BIO-1 on pages 4.4-23 through 4.4-25 of the draft EIR, and as revised, states that if sensitive natural communities are identified during field surveys, that implementation of mitigation measures would be required that would adhere to the following priority: “avoid impacts, minimize impacts, and compensate for impacts.” Avoidance of sensitive resources, including sensitive natural communities, would include implementation of no-disturbance buffers. Further, the mitigation measure requires compensation for loss of sensitive habitats, including sensitive natural communities, through restoration, enhancement, or preservation of these resources within or outside of the project site. The CEQA requirement for sensitive natural communities is to reduce impacts to these resources to less than significant. Mitigation Measure BIO-1 is sufficient to reduce impacts to sensitive natural communities to less than significant, because it requires avoidance of these habitats, and compensation for impacts to these habitats. For additional clarity, language has been added to this measure to emphasize that compensatory mitigation ratios will be established based on various factors (e.g., rarity of the habitat, quality of the habitat) in consultation with a qualified biologist and applicable resources agencies, as shown below.

Mitigation Measure BIO-1 also includes discussion regarding the compensation options that would be available , including habitat restoration, conservation easements, or in lieu fees. The comment regarding restoration plans and the

requirements therein is noted and is included as an option to achieve the no-net-loss standard in the revised text of the mitigation measure. It is not currently possible to know the types of compensation (e.g., conservation easements, in lieu fee opportunities, onsite habitat restoration) that will be available for specific future projects under the 2040 General Plan. Thus, including several options in Mitigation Measure BIO-1 is appropriate and further response is not required.

In response to the concerns raised in this and other comments, to clarify the relationship of the measure to the County's ISAG, Mitigation Measure BIO-1 beginning on page 4.4-23 has been revised as follows:

Mitigation Measure BIO-1: New Implementation Program COS-X: Protection of Sensitive Biological Resources

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program COS-X: Protection of Sensitive Biological Resources

~~The County shall update the Initial Study Assessment Guidelines, Biological Resources Assessment report criteria to evaluate discretionary development that could potentially impact sensitive biological resources with the following:~~

- ~~▶ The qualified biologist shall conduct an initial data review to determine the sensitive biological resources (i.e., special status plant, special status wildlife, sensitive habitats [e.g., riparian habitat, sensitive plant communities, ESHA, coastal beaches, sand dunes, other sensitive natural communities], wetlands and other non-wetland waters, native wildlife nursery sites, or wildlife corridors) that have the potential to occur within the project footprint. This will include but not be limited to review of the best available, current data including vegetation mapping data, mapping data from the County and California Coastal Commission, and database searches of the CNDDDB and the CNPS Inventory of Rare and Endangered Plants of California.~~
- ~~▶ The qualified biologist shall conduct a reconnaissance level survey for sensitive biological resources within the project footprint (including proposed access roads, proposed staging areas, and the immediate vicinity surrounding the project footprint) to determine whether sensitive biological resources identified during the initial data review have potential to occur.~~
- ~~▶ If the reconnaissance level survey identifies no potential for sensitive biological resources to occur, the applicant will not be subject to additional mitigation measures.~~

~~If sensitive biological resources are observed or determined to have potential to occur within or adjacent to the project footprint during the reconnaissance level survey, then the following measures shall apply:~~

Special Status Species

- ~~If special status species are observed or determined to have potential to occur within or adjacent to the project footprint, a qualified biologist shall conduct focused or protocol level surveys for these species where established, current protocols are available (e.g., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018], Staff Report on Burrowing Owl Mitigation [CDFG 2012]). If an established protocol is not available for a special status species, then the qualified biologist will consult with the County, and CDFW or USFWS, to determine the appropriate survey protocol.~~
- ~~If special status species are identified during protocol level surveys, then the County shall require implementation of mitigation measures that fully account for the adversely affected resource. When feasible, mitigation measures should adhere to the following priority: avoid impacts, minimize impacts, and compensate for impacts.~~
- ~~If impacts on special status species are unavoidable, then the project proponent shall obtain incidental take authorization from USFWS or CDFW (e.g., for species listed under ESA or CESA) prior to commencing development of the project site, apply minimization measures or other conditions required under incidental take authorization, and shall compensate for impacts to special status species by acquiring or protecting land that provides habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of project implementation; generally at least a 1:1 ratio. Compensation may include purchasing credits from a USFWS or CDFW approved mitigation bank or restoring or enhancing habitat within the project site or outside of the project site.~~

Sensitive Habitats, Wetlands, Other Non wetland Waters, Native Wildlife Nursery Sites, and Wildlife Corridors

- ~~If sensitive habitats, wetlands, other non wetland waters, native wildlife nursery sites, and wildlife corridors are identified within or adjacent to the project footprint, these features shall be avoided, if feasible, by implementing no disturbance buffers around sensitive habitats, wetlands, other non wetland waters, or native wildlife nursery sites, and avoiding development within wildlife corridors or implementing project specific design features (e.g., wildlife friendly fencing and lighting) within wildlife corridors, such that direct and indirect adverse effects of project development are avoided.~~
- ~~A delineation of aquatic habitat within a project site (including waters of the United States and other waters including those under State jurisdiction) including identification of hydrology, hydric soils, and hydrophytic vegetation, by a qualified biologist may be required to identify the exact extent of wetlands or other water features identified within or adjacent to the project footprint.~~

- ~~If impacts to sensitive habitats, wetlands, other non-wetland waters, native wildlife nursery sites, and wildlife corridors cannot be avoided, then the project proponent shall obtain required regulatory authorization (e.g., Section 404 permits for impacts to waters of the United States, 401 water quality certification from the Regional Water Quality Control Board, a Streambed Alteration Agreement for impacts to aquatic or riparian habitats within CDFW jurisdiction under Fish and Game Code Section 1602, a coastal development permit for impacts to ESHA), and shall compensate for unavoidable losses of these resources. Compensation may include restoration of sensitive habitats, wetlands, other non-wetland waters, native wildlife nursery sites, and wildlife corridors within or outside of the project site, preserving the aforementioned resources through a conservation easement at a sufficient ratio to offset the loss of acreage and habitat function, or purchasing credits at an existing authorized mitigation bank or in lieu fee program. The County shall require restoration or compensation for loss of sensitive habitats, wetlands, other non-wetland waters, native wildlife nursery sites, and wildlife corridors at a minimum of a 1:1 ratio or “no net loss.”~~

Implementation Program COS-X: Protection of Sensitive Biological Resources

For any future discretionary development project that could potentially impact sensitive biological resources, the project shall be evaluated pursuant to the methodology described in the Ventura County Initial Study Assessment Guidelines which shall be amended within one year of 2040 General Plan adoption to include the following:

- ▶ A preliminary assessment of the project shall be completed by County staff, in consultation with a qualified biologist, using available mapped biological resource data and aerial imagery to determine if the project has the potential to impact sensitive biological resources in the defined impact area (direct and indirect impacts). County staff will determine if project conditions or mitigation measures can be developed and implemented that would reduce or avoid those impacts to a less than significant level without requiring a more comprehensive biological resource assessment, otherwise known as an Initial Study Biological Assessment. Examples of projects that would not require a biological resource assessment may include but are not limited to: Projects that occur in previously developed areas, if additional vegetation removal is not required or the use may not impact surrounding natural areas; or projects on land consisting of non-native grasslands totaling less than one acre that are completely surrounded by existing urban development (such as urban infill lots).
- ▶ If County staff find that the project may adversely affect sensitive biological resources, then a County approved qualified biologist shall prepare a biological resource assessment to assess and mitigate the adverse impacts of the proposed project. The procedures detailed in Step 3 of the County of Ventura Initial Study Guidelines, Biological Resources Chapter,

Methodology Section shall be followed to prepare this biological resource assessment.

- ▶ The biological resource assessment shall be conducted by a County approved qualified biologist that meets the minimum qualifications for biological consultants listed in Attachment 1 to the County of Ventura Initial Study Assessment Guidelines. The qualified biologist shall have expertise in the taxonomic group or species on which the surveys are focused as well as the County's data review procedures and survey methods recommended by natural resource agencies or commonly accepted standards in the taxonomic group, community, or species (e.g., California Native Plant Society survey protocols).
- ▶ The biological field survey area will be determined by the County agency responsible for administering the project with consideration of recommendations from the qualified biologist. The survey area will include all areas of proposed disturbance, including associated equipment or personnel staging areas, and the surrounding area of potential sensitive biological resources that may be indirectly adversely affected by the project. The size of the survey area will be based on the characteristics of surrounding habitat, the potential for sensitive biological resources to occur, and the nature of the project. For example, an infill project within an already developed area may not require a large survey area; however, a development project adjacent to natural habitat may require a larger survey area based on the potential for disturbance. The procedure for delineating the size of the survey area will follow Step 1 of the County of Ventura Initial Study Guidelines, Biological Resources Chapter, Methodology Section.
- ▶ Prior to conducting any field surveys, the qualified biologist shall conduct an initial data review to determine the type of sensitive biological resources that may occur within the survey area using the procedures detailed in Step 3 (a) of the County of Ventura Initial Study Guidelines, Biological Resources Chapter, Methodology Section. This will include but not be limited to review of the best available, current data including: vegetation mapping data, mapping data from the County (Locally Important Species, Habitat Connectivity and Wildlife Corridor, Water Protection District data, past biological reports in the area, etc.); National Wetland Inventory Database (NWI); USGS National Hydrographic Dataset; EcoAtlas; and database searches of the US Fish and Wildlife Service Critical Habitat, Environmental Conservation Online System (ECOS) and Information, Planning, and Conservation System (IPaC); California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB); and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California; Audubon Important Bird Areas and Red Lists, Xerces Society, etc.

Biological Inventory -Special Status Species, Sensitive Habitats, Wetlands, Other Non-wetland Waters, Native Wildlife Nursery Sites, and Wildlife Corridors

- ▶ The biological inventory shall be conducted as detailed in Step 3 (b) Conduct Field Survey and (c) biological inventory, of the County of Ventura Initial Study Guidelines, Biological Resources Chapter, Methodology Section, which includes a general floristic survey of the project impact areas.
- ▶ Vegetation communities within the survey area shall be inventoried using the CDFW vegetation classification standards (Manual of California Vegetation) and the most recent version of CDFW vegetation mapping standards “Survey of California Vegetation Classification and Mapping Standards [CDFW, 2019].
- ▶ If the initial data review shows a wetland or water occurring within 300 feet (in non-coastal zone) or 500 feet (in coastal zone) from the edge of the proposed disturbance areas, then a qualified biologist shall delineate the aquatic habitat (including waters of the United States and other waters including those under State jurisdiction). A summary of the type of aquatic habitat, primary water source, species diversity, connectivity to off-site habitat or other hydrological features, hydric soils, and hydrophytic vegetation, and the boundary of the feature (based upon the outermost limit of associated vegetation (canopy drip line or scrub line), hydric soils, bank and bed – whichever is greater) shall be included in the biological resource assessment.
- ▶ If the initial data review indicates that sensitive biological resources have the potential to occur within the survey area, a qualified biologist shall conduct additional focused surveys for these species or other protected habitats using the most recently updated protocols recommended by natural resource agencies (e.g., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018], Staff Report on Burrowing Owl Mitigation [CDFG 2012]), or if not available, standards accepted in the professional biological community to survey that taxonomic group, community, or species . If an established protocol is not available for a special-status species then the qualified biologist will consult with the County, and CDFW or USFWS, to determine the appropriate survey protocol.

Mitigation for Special-Status Species, Sensitive Habitats, Wetlands, Other Non-wetland Waters, Native Wildlife Nursery Sites, and Wildlife Corridors

- ▶ If a sensitive biological resource is identified during field surveys, then the County shall require implementation of mitigation measures at the project level that fully account for the adversely affected resource. To the maximum extent feasible, mitigation measures should adhere to the following priority to reduce adverse impacts of a proposed project to the resource: avoid impacts, minimize impacts, and compensate for impacts.

- ▶ Mitigation measures shall be used on a project level basis and be tailored to on site conditions and sensitive biological resources present as follows:
 - Priority 1. Avoid of Impacts: Proposed development shall avoid impacts to the maximum extent feasible by not taking certain actions or parts of an action. Projects shall be sited to avoid direct or indirect impacts on the resource, and include measures such as implementing no-disturbance buffers (e.g., nesting bird buffer areas during construction, siting staging areas outside buffer area), or implementing project-specific design features (e.g., wildlife-friendly fencing and lighting in a wildlife corridor), such that indirect adverse effects of project development are avoided.
 - Priority 2. Minimize Impacts: Proposed development shall be conditioned to minimize adverse impacts by limiting the degree or magnitude of the action and its implementation to less than significant to the maximum extent feasible. Other mitigation measures may include reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
 - Measures to mitigate the spread of invasive plant species and invasive wildlife species (e.g., New Zealand mudsnail) shall include but will not be limited to: cleaning of equipment, footwear, and clothing before entering a construction site and the identification and treatment of significant infestations of invasive plant species within a project site.
 - Priority 3. Compensate for Impacts: Compensating for the impact can be done by replacing or providing substitute resources or by rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
 - Compensatory mitigation ratios for protected sensitive resources will be established based on the rarity of the resource, quality of affected habitat associated with the resource, temporary and permanent losses to habitat function, the type of mitigation proposed (restoration, enhancement, preservation, establishment), and other requirements associated with state or federal permits. Mitigation ratios will be determined at the project level in consultation with the County, the qualified biologist, and, where applicable, federal or state agencies with jurisdiction over the resource (e.g., CDFW, USACE, USFWS).
- ▶ If impacts on a protected sensitive biological resource are unavoidable, then the project proponent shall mitigate for the type of resource as follows:

- Endangered, Rare, Threatened, or Candidate Species: The applicant shall obtain incidental take authorization from USFWS (16 U.S. Code [U.S.C.] Section 1531 et seq.) or CDFW (California Fish and Game Code Sections 2050–2115.5) prior to commencing development of the project site, apply minimization measures or other conditions required under the incidental take authorization, and shall provide equivalent compensation for the unavoidable losses of these resources, generally at a minimum ratio of 1:1, or greater. Compensation may include purchasing credits from a USFWS- or CDFW-approved mitigation bank or restoring or enhancing habitat within the project site or outside of the project site.
 - Special-Status Species (includes Locally Important Species): The applicant shall provide equivalent compensation for impacts on special-status species by restoring or significantly enhancing existing habitat where the species occurs, acquiring or protecting land that provides habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of project implementation.
- ▶ If impacts on sensitive habitats, wetlands, other non-wetland waters, riparian habitats, native wildlife nursery sites, and wildlife corridors cannot be avoided, then the project applicant shall:
- Federal or State Protected Sensitive Habitats: Obtain the required regulatory authorization (e.g., Section 404 permits for impacts on waters of the United States, 401 water quality certification from the Regional Water Quality Control Board, a Streambed Alteration Agreement for impacts on aquatic or riparian habitats within CDFW jurisdiction under Fish and Game Code Section 1602, a coastal development permit for impacts on ESHA), and provide equivalent compensation for the unavoidable losses of the above mentioned resources such that there is no net loss.
 - Other Protected Sensitive Habitats (includes locally important plant communities, sensitive natural communities, habitat connectivity and wildlife corridors, native wildlife nursery or overwintering sites): Provide compensation for other protected sensitive habitats which may include the restoration, enhancement, or preservation of the aforementioned habitats within or outside of the project site, or the purchasing of credits at an existing mitigation bank or in lieu fee program deemed acceptable by the County Planning Director.
- ▶ All compensatory mitigation sites shall be protected in perpetuity through a conservation easement (if off-site), or deed restriction (or other comparable legal instrument) if on-site.

The County shall, in harmonizing the 2040 General Plan with the Ventura County Initial Study Assessment Guidelines, add definitions for the habitat

types included in this mitigation measure, including which components are subject to compliance with the County's Local Coastal Program and Coastal Zoning Ordinance versus non-coastal areas.

1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

2. "Mitigation, No-Net-Loss" A principle where if a development project cannot avoid the loss of a valued natural resource, the project mitigates the impacts by replacing the impacted habitat with a newly created or restored habitat of the same size and similar functional condition so that there is no loss of ecological functions and values of that habitat type for a defined area. Similar functional condition means the relative ability to support and maintain the same species composition, diversity, and functional organization as the impacted habitat.

A3-6 This comment states that there is "no mention of protocol surveys for special-status wildlife."

However, Mitigation Measure BIO-1 on pages 4.4-23 through 4.4-25 of the draft EIR, and as revised (refer to the full text of revised Mitigation Measure BIO-1 in response to comment A3-5), states that additional focused surveys would be conducted if special-status species have potential to occur within a project site following established protocols. Protocol-level surveys for special-status wildlife have already been addressed in the draft EIR, and further response is not required.

A3-7 This comment includes recommendations for specific language regarding focused surveys for special-status species with potential to occur within the plan area (e.g., special-status reptiles, nesting birds, raptors, bats). As explained below, the draft EIR does require protocol-level or focused surveys as part of Mitigation Measure BIO-1, which is identified, in part, to address the potentially significant impacts of the 2040 General Plan on special-status species. The issues raised in this comment also are addressed by the revised version of Mitigation BIO-1 (which is provided in full in the response to comment A3-5).

Section 4.4.1, "Background Report Setting Updates," of the draft EIR and associated Background Report include a full description of special-status wildlife species that could occur within plan area of the 2040 General Plan, including the status, life history, distribution, and potential for these species to occur. A total of 100 special-status wildlife species were identified as having potential to occur within the plan area of the 2040 General Plan. Because the exact location and timeframe of

potential future projects over an approximately 20-year period under the 2040 General Plan are currently unknown, it is not possible at this time to determine specific details regarding which of these species would be avoided or would be adversely affected at the project level. As a result, impacts to special-status species in the draft EIR were determined to be significant and unavoidable, due to this uncertainty and the possibility that the impact of some future projects would not be reduced to less than significant after implementation of Mitigation Measure BIO-1.

Mitigation Measure BIO-1 on pages 4.4-23 through 4.4-25 of the draft EIR, and as revised, was designed to apply to future development under the 2040 General Plan and to all of the special-status wildlife species that could be adversely affected by these projects. This mitigation measure requires project-level analysis, including data review to determine which special-status wildlife species may occur, a reconnaissance-level survey to ground truth the required data review, and protocol-level or focused surveys for special-status wildlife species that could occur within an individual project. Project-level data review, reconnaissance-level surveys, determination of the need for protocol-level surveys or focused surveys, and the surveys would all be implemented by a qualified biologist. This mitigation measure also requires the County and the qualified biologist to consult with CDFW or the U.S. Fish and Wildlife Service if established protocols are not available. The draft EIR requires implementation of mitigation measures that focus on avoiding impacts, minimizing impacts, and compensating for impacts, potentially through incidental take authorization from CDFW or the U.S. Fish and Wildlife Service.

The mitigation measure in this programmatic draft EIR for special-status wildlife, and as revised, contains sufficient detail to require impact avoidance, minimization, or compensation and the use of appropriate protocol-level surveys at the project level. This issue has been adequately addressed, and further response is not required.

A3-8 This comment pertains to potential impacts to California Endangered Species Act (CESA)-listed species as a result of 2040 General Plan implementation. See response to comment A3-5, above, regarding mitigation for impacts to all special-status species (including those listed under CESA).

A3-9 This comment recommends that if an individual project will result in take of a plant or animal species listed under CESA, the project proponent should seek take authorization from CDFW.

Mitigation Measure BIO-1 on pages 4.4-23 through 4.4-25 of the DEIR, and as revised, states that incidental take authorization will be obtained for projects that cannot avoid impacts on species listed under CESA or ESA.

This issue has been addressed, and further response is not required.

A3-10 Section 4.10, "Hydrology and Water Resources," of the draft EIR concludes that there would be less than significant impacts to State waters with implementation of the 2040 General Plan. This conclusion is supported by numerous existing State regulations that require review and permitting at a project level. For example, the

analysis of the potential for the 2040 General Plan to affect identified beneficial uses of a surface water, as identified in the applicable basin plan, due to an increase water demand (Impact 4.7-10) concludes that the impact would be less than significant based upon existing regulations, including compliance with Urban Water Management Plans (refer to draft EIR page 4.10-15).

A significant impact related to watershed function and biodiversity is identified in Section 4.4, "Biological Resources," of the draft EIR, however. The analysis of Impact 4.4-3 (Disturb or Result in Loss of Wetlands and Other Waters) concludes that the effect of implementing the 2040 General Plan would be potentially significant. As described on page 4.4-28 of the draft EIR, "[u]nder the 2040 General Plan, each discretionary project that could result in impacts on biological resources would require project-specific environmental review. Impacts on State and federally protected wetlands would be reduced through existing federal and State laws which address potential impacts through site-specific environmental review and permitting (e.g., Clean Water Act Section 404, California Fish and Game Code, California Coastal Act)." The analysis also acknowledges that "there would still be potential for impact because presence and extent of wetlands may only be determined through focused surveys, specific avoidance measures to prevent disturbance or direct loss of wetlands would be required, and specific compensation requirements would be necessary if impacts cannot be avoided. The Conservation and Open Space Element of the 2040 General Plan does not include policies that specifically outline wetland delineation requirements, specific avoidance measures, or compensation requirements" (draft EIR page 4.4-29).

As summarized on page 4.4-30 of the draft EIR, implementation of Mitigation Measure BIO-1 would substantially lessen significant impacts on wetlands because it would require identification these features during reconnaissance-level surveys, avoidance where feasible, and appropriate regulatory authorization. As a result, this mitigation measure, including as revised, would routinely reduce project-level impacts. However, due to the wide variety of future project types, site conditions, and other circumstances associated with future development, it is possible that there may be instances in which this mitigation measure would not reduce impacts to a less-than-significant level. Therefore, this is a significant and unavoidable impact of the 2040 General Plan.

A3-11

As indicated in response to comment A3-10, above, the analysis of Impact 4.4-3 (Disturb or Result in Loss of Wetlands and Other Waters) in Section 4.4, "Biological Resources," of the draft EIR concludes that the effect of implementing the 2040 General Plan would be potentially significant. Although existing regulations (including the Clean Water Act Section 404, California Fish and Game Code, California Coastal Act) are acknowledged, the 2040 General Plan does not include policies that specifically outline wetland delineation requirements, specific avoidance measures, or compensation requirements. Mitigation Measure BIO-1, as recommended in the draft EIR, and as revised, would substantially lessen significant impacts on wetlands because it would require identification these features during reconnaissance-level surveys, a delineation of waters of the United States and other waters (including those under State jurisdiction), avoidance of these features as feasible and as required

by State and federal law, or regulatory authorization as required by State and federal law.

Through a proposed implementation program outlined in Mitigation Measure BIO-1, the County would update the Biological Resources Assessment report criteria in the Initial Study Assessment Guidelines to evaluate discretionary development that could potentially impact sensitive habitats, wetlands and other non-wetland waters. Consistent with the mitigation measures outlined in the comments, Mitigation Measure BIO-1, including as revised, would require delineation of State waters and avoidance where possible. If impacts cannot be avoided, then the project proponent would obtain required regulatory authorization (e.g., Section 404 permits for impacts to waters of the United States, 401 water quality certification from the Regional Water Quality Control Board, a Streambed Alteration Agreement for impacts to aquatic or riparian habitats within CDFW jurisdiction under Fish and Game Code Section 1602, a coastal development permit for impacts to Environmentally Sensitive Habitat Areas), and compensate for unavoidable losses of these resources. Compensation may include restoration of sensitive habitats, wetlands, other non-wetland waters, native wildlife nursery sites, and wildlife corridors within or outside of the project site, preserving the aforementioned resources through a conservation easement at a sufficient ratio to offset the loss of acreage and habitat function, or purchasing credits at an existing authorized mitigation bank or in lieu fee program. The County would require restoration or compensation for loss of sensitive habitats, wetlands, other non-wetland waters, native wildlife nursery sites, and wildlife corridors at a minimum of a 1:1 ratio or “no-net-loss” (see pages 4.4-23 through 4.4-25 of the draft EIR and revised Mitigation Measure BIO-1 provided in response to comment A3-5).

As stated on page 4.4-30 of the draft EIR, “this mitigation measure would routinely reduce project-level impacts to less than significant. However, due to the wide variety of future project types, site conditions, and other circumstances associated with future development, it is possible that there may be instances in which this mitigation measure would not reduce impacts to a less than significant level. Therefore, this impact would be significant and unavoidable.” This impact conclusion is unaffected by the revisions to Mitigation Measure BIO-1.

- A3-12 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- A3-13 The County understands and acknowledges the requirement to submit a CDFW filing fee for this and any subsequent document prepared pursuant to CEQA.
- A3-14 The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.

Letter
A4

From: Lin, Alan S@DOT <alan.lin@dot.ca.gov>
Sent: Tuesday, February 25, 2020 10:36 AM
To: Downing, Clay <clay.downing@ventura.org>
Cc: Duong, Frances M@DOT <Frances.Duong@dot.ca.gov>; Edmonson, Miya R@DOT <miya.edmonson@dot.ca.gov>
Subject: Ventura General Plan Review-Deadline Extension Request

Clay,

Per our phone conversation today and discussion with management, we would like to request an extension to send Caltrans comment letter. Please extension CEQA deadline to March 18, 2020 if possible. I A4-1

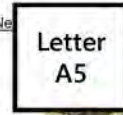
All future correspondences should send to Ms. Miya Edmonson, Branch Chief, for review. I A4-2

Thank you!

Alan Lin, P.E.
 Project Coordinator
 State of California
 Department of Transportation
 District 7, Office of Transportation Planning
 Mail Station 16
 100 South Main Street
 Los Angeles, CA 90012
 (213) 897-8391 Office
 (213) 897-1337 Fax

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|----------------------|------------------------------------------------------------------------------------------------------------------------|
| Letter A4 | California Department of Transportation, District 7 Alan Lin, P.E., Project Coordinator February 25, 2020 |
|----------------------|------------------------------------------------------------------------------------------------------------------------|

- A4-1 The draft EIR was available for a 45-day review period from January 13, 2020, to February 27, 2020, in compliance with CEQA (Pub. Res. Code, § 21091). The commenter’s request for extension of the comment period has been noted. No extension of the comment period was granted.
- A4-2 The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.



Making Conservation
a California Way of Life.

DEPARTMENT OF TRANSPORTATION
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 100 S. MAIN STREET, MS16
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February 27, 2020

Ms. Susan Curtis
 County of Ventura
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009

RE: Ventura County 2040 General Plan Update
 Vic. Countywide
 SCH # 2019011026
 Ref. GTS # VEM-2017-00228AL-NOP
 GTS # VEN-2017-00388AL-DEIR

Dear Ms. Curtis:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project is a comprehensive update of the County of Ventura General Plan, also known as the 2040 General Plan. The 2040 General Plan will set forth the County's vision of its future and identify the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including but not limited to land use, climate change, agriculture, transportation, hazards, public facilities, health and safety, environmental justice, and resource conservation out to the year 2040.

A5-1

The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Senate Bill 743 (2013) mandated that CEQA review of transportation impacts of proposed development be modified by using Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for all future development projects. For future project, you may reference to The Governor's Office of Planning and Research (OPR) for more information.

<http://opr.ca.gov/ceqa/updates/guidelines/>

The Lead Agency has provided a VMT analysis for this project and using 2012 Baseline Model, 2040 Ventura County General Plan Land Use Model, 2040 VCTC and 2040 SBCAG travel demand model. For further review and feedback, it would be helpful if the County can share all models and assumptions with Caltrans to validate the model results (including 2040 General Plan results on page 4.16-24) provided in section 4.16 Transportation and Traffic.

A5-2

Caltrans is aware of challenges that the region faces in identifying viable solutions to alleviating congestion on State and Local facilities. With limited room to expand vehicular capacity, in general Caltrans concurs the County's policies for future developments that

A5-3

*"Provide a safe, sustainable, integrated and efficient transportation system
 to enhance California's economy and livability"*

Ms. Susan Curtis
February 27, 2020
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should incorporate multi-modal and complete streets transportation elements that will actively promote alternatives to car use and better manage existing parking assets and policies for bicycling, pedestrian, and public transit which can allow streets to transport more people in a fixed amount of right-of-way.

We encourage the Lead Agency to integrate transportation and land use in a way that reduces Vehicle Miles Traveled (VMT) and Greenhouse Gas (GHG) emissions by facilitating the provision of more proximate goods and services to shorten trip lengths, and achieve a high level of non-motorized travel and transit use. We also encourage the Lead Agency to evaluate the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications in order to better manage the transportation network, as well as transit service and bicycle or pedestrian connectivity improvements. Moreover, we encourage mixed-use development with smart growth principle to shorten travel distance for different land uses to achieve job-and-housing balance within the County boundary.

We have the following comments and recommendations for the following policies:

Policy CTM-1.7: Pro Rata Share of Improvements. We concur that “the County shall require discretionary development that would generate additional traffic to pay its pro rata share of the cost of added vehicle trips and the costs of necessary improvements to the Regional Road Network pursuant to the County’s Traffic Impact Mitigation Fee Ordinance.” Caltrans recommend the improvements shall include the State facilities identified and approved by both agencies.

Policy CTM-2.9: State Route 118 Improvement in Saticoy Area. When the final list of improvement is approved by Caltrans and Ventura County Transportation Commission (VCTC), we recommend this list be a part of the fair share program in the County’s Traffic Impact Mitigation Fee Ordinance.

Policy CTM-2.19: Safety Metrics. We concur that “the County shall continue to examine and update safety metrics for California Environmental Quality Act (CEQA) impact analysis as appropriate. Option include but are not limited to: queue spill-back at intersections; midblock unprotected crossings; and increased crossing distances.” Caltrans recommend the safety impact analysis shall also include off-ramps, State intersections, and weaving areas on the freeway mainlines. Caltrans will provide separate consultation for any queuing analysis when needed.

A5-3
cont.

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 Page 3

Policy CTM-4.1: Reduce Vehicle Miles Traveled (VMT). We concur that “the County shall work with Caltrans and Ventura County Transportation Commission (VCTC) to reduce VMT by...”. We recommend future projects to consider additional Traffic Demand Management (TDM) options referencing to the Federal Highway Administration’s *Integrating Demand Management into the Transportation Planning Process: A Desk Reference* (Chapter 8). The reference is available online at:

<http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf>

We recommend the County to develop a monitoring program to monitor the effectiveness of TDM or Vehicle Miles Traveled (VMT) Reduction Program.

We would like the County to invite Caltrans to review and to provide consultation/feedback when the County is developing or updating the following Implementation Programs in the future.

Implementation Program A: Traffic Impact Mitigation Fee Program.
Implementation Program B: Initial Study Assessment Guidelines.
Implementation Program C: Vehicle Miles Traveled (VMT) Reduction Program.
Implementation Program D: Regional Road Network Coordination.
Implementation Program L: Master Bicycle Network Plan.

A5-3
 cont.

For Land Use and Community Character Element, we concur “**Policy LU-11.3: Design.** The County shall require new commercial and industrial developments to be designed to be generally compact, grouped and consolidated into functional units providing for sufficient off-street parking and loading facilities, maximize pedestrian and vehicle safety, reduce vehicle miles traveled (VMT), encourage electric vehicle charging, and minimize land use conflicts and traffic congestion. The County shall require that commercial and industrial discretionary development is designed to provide adequate buffering (e.g., walls, landscaping, setbacks) and operational conditions (e.g., noise, glare, and odors) on adjoining and adjacent residential area.” Again, this is where we would encourage the County to promote mixed-use development with smart growth principle to shorten travel distance for different land uses to achieve job-and-housing balance within the County boundary.

Policy HAZ-10.8: Alternative Transportation Modes. We concur that “the County shall promote alternative modes of transportation that reduce single-occupancy vehicle (SOV) travel and enhance “last-mile” transportation option to improve air quality.” We recommend

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the County to develop a program to promote the alternative modes of transportation for new development projects.

A5-3
cont.

For **Mitigation Measure CTM-3: Revised Implementation Program CTM-C: Vehicle Miles Traveled (VMT) Reduction Program**, we concur that "During implementation of the 2040 General Plan, the County shall review and update the VMT Reduction Program as warranted to provide additional mitigations and Programs." Again, we recommend the County to include Caltrans in the review and update process whenever is available.

For **Mitigation Measure CTM-4: New Implementation Program CTM-X; Updated Traffic Impact Fee Mitigation Program**, we concur that "the County shall require that development which adds traffic to roadways traversing within a County designated substandard roadway impact area contribute the fair share costs of any safety countermeasures that improve the safety of the impacted roadways by paying the applicable fees under the County's Traffic Impact Fee mitigation program prior to issuance of Zoning Clearance." Again, we recommend such safety improvements include the State facilities.

A5-4

After this mitigation, we understand that "traffic volume would increase on existing roadways already identified as substandard facilities. Substandard roadways must be improved to meet County road standards to mitigate impact significance. Further, analysis of trips added by discretionary development to roadways identified as facilities with high collision/incidence rates must be explored at the project-level to ensure safety standards are met. No other feasible mitigation is available to eliminate safety concerns associated with the identified substandard roadways. Therefore, this impact would remain significant and unavoidable."

On page 5-19 of the 2040 General Plan Draft Environmental Impact Report, we acknowledge that "the VMT impact analysis relies on existing and future growth accommodated through the 2040 General Plan and accounts for the projected growth of the incorporated cities and surrounding counties. Therefore, the transportation and traffic impacts identified in Section 4.16, are inherently cumulative. The VMT and County road standards and safety impacts would remain significant and unavoidable even with mitigation measures due to the increased development, new roadways, and increased numbers of users on the county's transportation system that would result from implementation of the 2040 General Plan. Therefore, the potential for cumulative impacts related to transportation and traffic would be cumulatively significant, and the project would have a considerable contribution." In the end, we recommend the County to work with Caltrans closely for each specific large project in the future to identify safety improvements on the State facilities and also in achieving to reduce VMT with land use balance principle.

A5-5

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Page 5

If you have any questions, please feel free to contact Alan Lin the project coordinator at (213) 897-8391 and refer to GTS # 07-VEN-2017-00388AL-DEIR. | A5-6

Sincerely,



MIYA EDMONSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*

| | |
|----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Letter A5 | California Department of Transportation, District 7 Miya Edmonson, IGR/CEQA Branch Chief February 27, 2020 |
|----------------------|-------------------------------------------------------------------------------------------------------------------------|

A5-1 This comment is introductory in nature and provides a summary of the 2040 General Plan, mission of the commenting agency, and information about Senate Bill 743 that can be referenced for future projects. This information is noted and does not raise a significant environmental issue for which a response is required.

A5-2 The comment notes that access to all models and assumptions used in the draft EIR vehicle miles traveled (VMT) analysis would be helpful to further review and validate the analysis and conclusions.

As described on pages 4.16-3 and 4.16-4 in the draft EIR, an empirically based VMT estimate was developed using the Highway Performance Monitoring System to establish the baseline condition (i.e., ground-truth VMT estimate). This includes both a boundary-based VMT estimate (Table 4.16-1) and a Senate Bill 743 compliant full trip length VMT estimate (Table 4.16-2). To project the full trip length baseline VMT as a result of the planned growth both within the unincorporated county and the cities, the draft EIR relied on two travel demand models: Ventura County Transportation Commission’s Travel Demand Model and the Santa Barbara County Association of Government’s Travel Demand Model. Use of the Santa Barbara County Association of Government’s model was necessary to estimate the full trip length of inter-county trips between Ventura and Santa Barbara counties. The description of this analysis and the two travel demand models used are provided in Appendix F to the draft EIR.

A5-3 The comment summarizes challenges facing the region, encourages integration of transportation and land use in ways that reduce VMT, and provides commentary on specific polices proposed in the 2040 General Plan. The agency also requests that the County invite the California Department of Transportation (Caltrans) to review and provide feedback when the County is developing or updating several 2040 General Plan implementation programs. The comment also includes a general statement of agreement with draft EIR Mitigation Measure CTM-3 and recommends that the County include Caltrans in future review and update processes related to this measure. The agency’s comments and offer to assist in the County with these programs and mitigation measure are noted and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan. Because the comments are not related to the adequacy of environmental analysis, no revisions to the draft EIR have been made in response to this comment.

A5-4 The comment acknowledges and confirms the conclusion of draft EIR Impact 4.16-2 (Transportation Infrastructure Needed to Accommodate Growth Would Result in Adverse Effects Related to County Road Standards and Safety). The comment recommends that the safety improvements required through Mitigation Measure CTM-4 also include State facilities. However, this mitigation is designed to address effects of future development on unincorporated county roadways that

do not meet County standards (based on an adopted threshold in the County's Initial Study Assessment Guidelines) through a traffic impact mitigation fee administered by the County. Because the Initial Study Assessment Guidelines and draft EIR threshold of significance address County roadways there is no nexus for the County to include such a requirement for State facilities as CEQA mitigation for the identified impact. Implementation Program D in the 2040 General Plan describes the County's commitment to continue working with the cities, Caltrans, and regional partners to identify and fund needed roadway improvements (refer to page 4-35). Implementation Program A in the 2040 General Plan goes further and commits the County to update its Traffic Impact Mitigation Fee Program every 5 years. As in the past, these updates are done in concert other cities in Ventura County, as well as Caltrans, to ensure that all needed projects are identified and sufficient funding is collected among all jurisdictions.

No changes to the draft EIR have been made in response to this comment. The agency's concerns are noted and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

A5-5 In this comment, Caltrans acknowledges the statement made in the draft EIR that "the VMT impact analysis relies on existing and future growth accommodated through the 2040 General Plan and accounts for the projected growth of the incorporated cities and surrounding counties. Therefore, the transportation and traffic impacts identified in Section 4.16, are inherently cumulative."

The suggestion that the County work with Caltrans to identify appropriate safety improvements on State facilities and methods of reducing VMT at the project level when individual, larger developments are under review is noted.

A5-6 The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.

THOMAS L. SLOSSON, PRESIDENT
DIVISION 1

ANDY WATERS, SECRETARY
DIVISION 3

STEVE BLOIS, DIRECTOR
DIVISION 5



ANDRES SANTAMARIA, VICE PRESIDENT

SCOTT H. QUADY, T

ANTHONY GOFF
GENERAL MANAGER

Letter
A6

web site: www.calleguas.com

2100 OLSEN ROAD • THOUSAND OAKS, CALIFORNIA 91360-6800 805/526-9323 • FAX: 805/522-5730

February 24, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Dear Ms. Curtis:

Calleguas Municipal Water District (Calleguas) appreciates the opportunity to comment on the Draft Environmental Impact Report (DEIR; SCH# 2019011026) for the Ventura County 2040 General Plan, released for public review on January 13, 2020.

Calleguas is one of twenty-six member agencies of the Metropolitan Water District of Southern California (Metropolitan) and the primary urban water supplier in Ventura County, providing potable water service to three quarters of County's population. Through 19 retail water agencies and companies, Calleguas provides water to the cities of Oxnard, Camarillo, Moorpark, Simi Valley, Thousand Oaks, and Port Hueneme as well as surrounding areas of unincorporated Ventura County.

A6-1

The Water Resources Element of the General Plan includes new and updated policies regarding water use efficiency, conservation, and supply in unincorporated Ventura County, including those areas within Calleguas' service area. We support these policies that encourage water conservation and water use efficiency, and regional collaboration and diversifying water sources to ensure a reliable supply of potable water while protecting water quality and environmental resources.

We offer the following specific comments regarding water resources:

Background Report (Appendix B of the DEIR)

The Background Report provides the basis for the environmental setting presented in the DEIR. However, there are several technical clarifications that should be made with regard to Calleguas' service area and retail water purveyors.

A6-2

On page 10-47 (Figure 10-4, Water Purveyors in Santa Clara River Watershed), “Calleguas Wholesale District” is identified with Casitas as the supplier and Sisar MWC as the Water Company. Casitas is not a supplier to Calleguas, and Sisar MWC is not a Calleguas purveyor.

On page 10-59 (Figure 10-5, Water Purveyors in Calleguas Creek Watershed), several of the Water Companies listed for Calleguas either no longer exist or are not member retail purveyors of Calleguas. Please review the Calleguas 2015 Urban Water Management Plan for the current list of member purveyors (Section 3.0 System Description): <http://www.calleguas.com/images/docs-documents-reports/cmwdfinal2015uwmp.pdf>. Note that Figure 10-5 also includes the Oxnard Plain, a subwatershed of the Santa Clara River.

A6-2
cont.

Lake Sherwood/Hidden Valley Area Plan

The proposed Lake Sherwood/Hidden Valley Area Plan contains several policies that address water supply. LS-58.2 (Water System Service Area) states that the water system serving the Lake Sherwood Community shall be sized to only serve the Lake Sherwood Community and existing or replacement single-family dwellings outside the Lake Sherwood Community which will be directly connected by a private lateral water line. LS 58.3 (Water Distribution System Sizing) requires that the water distribution system for the Lake Sherwood Community must be sized no larger than necessary to serve the community (see also Goal LS-60). However, LS 58.4 (Requirement for Publicly Operated Water Supplier) states: “The County shall require discretionary development to be served by a publicly operated water supplier. The County shall require all facilities to meet or exceed County Waterworks Standards.” This appears to conflict with LS-58.2, LS-58.3, and LS-60. Discretionary development within the Area Plan that is outside of the Lake Sherwood Community may need to be annexed to Calleguas and Metropolitan in order to access imported water via our local publicly operated water purveyor, Ventura County Waterworks District 38. Further, if existing properties within the Plan Area but outside of the Lake Sherwood Community wish to receive imported water due to issues with the quality or quantity of available groundwater, Policies LS-58.2 and LS-58.3 may present an obstacle for them to do so. Allowing property owners to pursue annexation to Calleguas and Metropolitan in order to access imported water would support Goal LS-64 (To protect against overdrafting of the area’s groundwater basins). It would also support General Plan Policies WR-1.1 (Sustainable Water Supply), WR-1.3 (Portfolio of Water Sources), and WR-1.4 (State Water Sources).

A6-3

Ideally, a comprehensive planning effort should be undertaken by stakeholders to understand the water issues facing Hidden Valley. A piecemeal approach toward annexation of parcels and an area plan that restricts extension of water utility service are not prudent pathways to achieve future development goals.

Draft EIR Section 4.17 (Utilities)

Table 4.17-2 (Existing Water Supplies and Demands) segments water providers, supplies, and annual water demands by each major watershed within the County. The report states that “the small portion of the Malibu Creek Watershed that falls in Ventura County is included with the

A6-4

information on the Calleguas Creek Watershed for the purposes of this document.” This table should include Ventura County Waterworks District No. 38 under “Municipal Water Suppliers” for the Calleguas Creek.

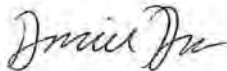
Annual water demands characterized in Table 4.17-2 may be significantly higher than current water agency forecasts. New statewide water use efficiency regulations – also known as *Make Water Conservation a California Way of Life* – will soon be implemented. Each year, starting in 2023, retail water agencies will be held responsible for ensuring their system-wide, aggregate water use falls within a calculated water budget. Under the new law, the State may assess penalties on water suppliers that don’t meet their objectives beginning in 2027. We recommend the DEIR reference the upcoming water efficiency standards that will be developed by Department of Water Resources and the State Water Resources Control Board.

A6-4
cont.

We appreciate the opportunity to comment on the DEIR for the Ventura County 2040 General Plan. Should you have any questions regarding these comments, please do not hesitate to contact me at (805) 579-7185 or by email at ddrugan@calleguas.com. We look forward to reviewing the Final EIR.

A6-5

Sincerely,



Dan Drugan
Manager of Resources

cc: Anthony Goff, General Manager
Jennifer Lancaster, Principal Resource Specialist

| | |
|----------------------|----------------------------------------------------------------------------------------------------|
| Letter A6 | Calleguas Municipal Water District Dan Drugan, Manager of Resources February 24, 2020 |
|----------------------|----------------------------------------------------------------------------------------------------|

- A6-1 The description of the commenting agency’s role and support for policies regarding water use efficiency, conservation, and supply in unincorporated Ventura County are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- A6-2 The comment suggests technical clarifications of the information about water purveyors provided in Figure 10-4 and Figure 10-5 of the Background Report. In response, the following text is added to Section 4.17.1, “Background Report Setting Updates,” in Section 4.17, “Utilities,” under the subheading “Environmental Setting,” on page 4.17-1:

Water Purveyors – Calleguas Municipal Water District

Most of Ventura County residents (approximately three quarters) rely on Calleguas Municipal Water District (MWD) for at least a portion of their potable water supply. Calleguas MWD distributes high quality drinking water to 19 cities, local water agencies, and investor-owned and mutual water companies (listed below) throughout southeast Ventura County. These retail purveyors receive water through 140 miles of large-diameter pipeline operated and maintained by Calleguas MWD. In turn, these purveyors deliver water to area residents, businesses, and agricultural customers. Only a small portion of the water (approximately 5 percent) is used for agricultural purposes. Agricultural demands are generally met by other agencies or private entities using untreated surface water, recycled wastewater, and groundwater from various basins underlying the area (Calleguas MWD 2016).

The following water purveyors obtain all or a portion of their water from Calleguas MWD:

- ▶ Berylwood Heights Mutual Water Company
- ▶ Brandeis Mutual Water Company
- ▶ Butler Ranch Mutual Water Company
- ▶ California-American Water Company
- ▶ California Water Service Company
- ▶ Camrosa Water District
- ▶ City of Camarillo
- ▶ City of Oxnard

- ▶ City of Port Hueneme
- ▶ City of Thousand Oaks
- ▶ Crestview Mutual Water Company
- ▶ Golden State Water Company
- ▶ Oak Park Water District
- ▶ Pleasant Valley Mutual Water Company
- ▶ Solano Verde Mutual Water Company
- ▶ Ventura County Waterworks District No. 1 (VCWWD No. 1)
- ▶ Ventura County Waterworks District No. 8 (VCWWD No. 8)
- ▶ Ventura County Waterworks District No. 19 (VCWWD No. 19)
- ▶ Ventura County Waterworks District No. 38 (VCWWD No. 38) – formerly Lake Sherwood Community Services District (CSD)
- ▶ Zone Mutual Water Company

This additional information clarifies and updates the language in the Background Report, but does not substantially change the content, analysis, or conclusions of the draft EIR.

A6-3 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

A6-4 The comment references the content of Table 4.17-2, which is provided in the draft EIR as part of the analysis of whether implementation of the 2040 General Plan could result in development that would adversely affect water supply during normal and dry years (Impact 4.17-4). Mitigation is proposed for “water-demand projects” (as defined in Section 15155 of the State CEQA Guidelines) that require service from a public water system. Such projects would be required to prepare a water supply assessment before project approval. Although this mitigation measure, together with the County’s existing water availability letter (WAL) and “will serve” letter (WSL) requirements and 2040 General Plan policies and programs, would reduce the potential for future development to adversely affect water supplies, the analysis concludes that adequate water supplies may be unavailable during normal, single-, and multiple dry years to meet future demand. Evaluation of all potential future development projects in all locations of the county through 2040 is not possible at this program level of analysis. Therefore, this impact would be significant and unavoidable.

The comment states that Table 4.17-2 in the draft EIR should include Ventura County Water Works District No. 38 as a municipal supplier for the Calleguas Creek watershed. In response to this comment, Ventura County Water Works District No. 38 has been added to Table 4.17-2 on page 4.17-15 of the draft EIR, as indicated below. This revision clarifies the draft EIR text but does not affect the adequacy of the draft EIR analysis or conclusions.

4.17-2 Existing Water Supplies and Demands

| Watershed | Municipal Water Suppliers | Other Water Suppliers | Water Supplies | Annual Water Demand |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Ventura River | Casitas Municipal Water District Ventura Water Golden State Water Company Ventura River Water District Meiners Oaks Water District | 11 mutual water companies | 23,051 AF Surface Water 14,600 to 21,300 AF Groundwater (37,700 – 44,400 AF total) | 32,700 AF |
| Cuyama | None | None | 22,000 AF | 10,000 AF agriculture/8 AF domestic |
| Santa Clara River | Castaic Lake Water Agency City of Fillmore City of Oxnard City of Santa Paula United Water Conservation District Ventura Water | 74 smaller water systems and irrigation companies | 12,000 AF Imported Water 10,200 to 19,700 AF Recycled Water 136,400 to 171,000 AF Groundwater (158,400 – 202,700 AF Total) | 182,600 AF |
| Calleguas Creek | Calleguas Municipal Water District City of Simi Valley/Ventura Co. Waterworks City of Oxnard City of Thousand Oaks City of Camarillo Port Hueneme Water Agency Camrosa Water District Ventura County Waterworks District No. 1 Ventura County Waterworks District No. 19 <u>Ventura County Water Works District No. 38</u> Triunfo Water and Sanitation District California American Water Company – Ventura District California Water Service Company – Westlake District Golden State Water Company – Simi Valley Pleasant Valley Mutual Water Company Crestview Mutual Water Company Zone Mutual Water Company | 52 small water systems and irrigation companies | 11,324 AF Surface Water 119,417 AF Imported Water 13,931 Recycled Water 51,300 to 82,300 AF Groundwater (196,000 – 227,000 AF total) | 224,660 AF ¹ |

Note: AF=acre-feet.

1: Calleguas Municipal Water District imports water into the watershed through the State Water Project to meet basin demand in most years.

Source: Appendix B

The comment also notes that the water demand estimates provided in Table 4.17-2 could overstate future demand in light of recent regulatory efforts to reduce water use and recommends that the new statewide efficiency measures are incorporated into the analysis. As noted by the commenter, water conservation legislation was signed into law in 2018 that lays out a long-term water conservation framework for California that applies to the actions of the California Department of Water Resources, the State Water Resources Control Board, and water suppliers. The handbook that summarizes this legislation is entitled *Making Water Conservation a California Way of Life – Primer of 2018 Legislation on Water Conservation and Drought Planning, Senate Bill 606 (Hertzberg) and Assembly Bill 1668 (Friedman)*. The legislation also made changes to existing urban and agricultural water management planning, and enhanced drought preparedness and water shortage contingency planning for urban water suppliers, small water systems, and rural communities. Pursuant to this legislation, the California Department of Water Resources is developing standards, guidelines and methodologies, performance measures, web-based tools and calculators, data and data platforms, reports, and recommendations to the State Water Resources Control Board for adoption of new regulations.

The draft EIR analysis (pages 4.17-16 through 4.17-18) acknowledges that current water demand projections could be high if water efficiency measures are employed. However, the results of these actions, including those outlined in 2040 General Plan policies, depend “on where conservation activities occur, the location of future demand, and how it would affect a particular water supplier.” Furthermore, existing County standards in the Ventura County Waterworks Manual do not guarantee that water supplies will be available to serve all future development during normal, single-dry, and multiple-dry years. The analysis does not include consideration of the 2018 water conservation legislation because the regulatory framework for implementation has not been adopted.

Therefore, although recent water conservation legislation could have a real and positive impact on water demand in the unincorporated county over the life of the 2040 General Plan, projected demand based on implementation of these new regulations is not available. Moreover, this information alone would not change the analysis or conclusions with respect to the potential for there to be development somewhere in the county that would adversely affect water supply during normal and dry years.

As indicated above, Table 4.17-2 provides existing water demand. It would not be appropriate to adjust these numbers based on speculative results of anticipated, future regulation. Existing demand provides a reasonable basis for the analysis. If water demand is reduced, then the County has been conservative in its assessment of potential impacts.

A6-5

The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.



REC'D FEB 27 2020

Letter
A7

City of Camarillo

601 Carmen Drive • P.O. Box 248 • Camarillo, CA 93011-0248

February 21, 2020

Ventura County Resource Management Agency Via E-Mail: GeneralPlanUpdate@ventura.org
Planning Division
Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

RE: Response to Ventura County 2040 General Plan EIR (SCH No. #2019011026)

Dear Ms. Curtis:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (EIR) for the Ventura County 2040 General Plan that has been prepared by the County of Ventura for public review pursuant to the California Environmental Quality Act (CEQA) Guidelines. After reviewing the EIR, we submit the following comments for your consideration.

A7-1

Agricultural Land and Buffers to Protect Sensitive Receptors

City's Position: The EIR should require buffers around City jurisdictions and require farming techniques that will protect existing sensitive receptors from strong, unpleasant odors associated with hemp farming.

Reasoning: The EIR only addresses agricultural odors from the standpoint of ensuring that new sensitive receptors are not placed in proximity to existing agricultural uses without providing disclosure to new uses and that it does not limit the right to farm. The EIR should address odor impacts associated with types of agricultural crops – and how they are farmed – that may have a substantial odor impact on existing sensitive receptors. The County should ensure that existing sensitive receptors will not be adversely impacted based on the introduction of new types of crops being farmed such as industrial hemp.

A7-2

Very Low Density Residential (VLDR)

City's Position: To ensure that development in the County adjacent to development in the City is compatible, the VLDR designation should have a maximum density of three units per acre.

Reasoning: The General Plan Land Use Element proposes a land use category of predominantly Very Low Density Residential (VLDR) within the Camarillo Sphere of Influence north of the City limits. Page 2-21 of the County Land Use and Community Character Element indicates this designation would have a maximum density of four dwelling units per acre with a minimum lot size of 10,000 square feet. This is in conflict with Page 2-36, which indicates the VLDR designation has a maximum density of three dwelling units per acre. The City of Camarillo

A7-3

February 21, 2020
RE: Response to VC2040 General Plan EIR
Page 2 of 2

General Plan Land Use Element designates this area in the Sphere of Influence, north of the City limits, as Rural Density Residential (2.5 dwelling units per acre). This is consistent with the designation of most of the land that is in the City adjacent to the City boundary line, which is designated Rural Density Residential.

A7-3
cont.

Local Infrastructure

City's Position: Policies in the County General Plan should ensure new development on County land within and adjacent to the City Sphere of Influence is compatible with surrounding land uses in the City and that the use will not adversely impact local infrastructure.

Reasoning: The increase in density and 10,000 square foot minimum lot size in the VLDR designation adjacent to City limits within the City's Sphere of Influence needs to be analyzed in the EIR with respect to land use compatibility with adjacent development within the City, and impacts on City utilities and streets, as these areas may be annexed and connected to City infrastructure.

A7-4

Wireless Communication Facilities

City's Position: The General Plan should encourage cooperation between the County and Cities for the proper placement and design of wireless communication facilities.

Reasoning: The City has provided comments to the County to oppose the placement of an 80-foot tall mono-Eucalyptus along Pleasant Valley Road at Bridgehampton Way, which divides the City and County boundaries. Pleasant Valley Road is a designated scenic corridor in the Camarillo General Plan Community Design Element and the proposed wireless facility would not be consistent with the City General Plan. The County should have policies discouraging new macro wireless facilities adjacent to City boundaries, unless they are stealth and consistent with height structures in the surrounding area. The County General Plan should have policies to ensure new wireless facilities are properly sited and designed to avoid land use incompatibility; that it will not be inconsistent with the City General Plan; and that it will not result in an adverse aesthetic impact.

A7-5

SCAG Data Forecasts

City's Position: The County should use data consistent with the SCAG population forecasts.

Reasoning: Table 5-2 – Forecasted Growth of Incorporated Cities within Ventura County indicates Camarillo's population to be 79,900 in 2040. The City has verified that SCAG has incorporated the data provided to SCAG during the Local Input Process for the 2020 RTP/SCS. The population forecasts that are being used by SCAG are: 75,240 in 2035 and 76,093 in 2045.

A7-6

Thank you, once again, for the opportunity to comment.

Respectfully,



Dave Norman
City Manager

| | |
|----------------------|----------------------------------------------------------------------------|
| Letter A7 | City of Camarillo Dave Norman, City Manager February 21, 2020 |
|----------------------|----------------------------------------------------------------------------|

- A7-1 The City of Camarillo’s opportunity to review and comment on the draft EIR is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- A7-2 The comment asserts that the draft EIR should address odor impacts to existing sensitive receptors associated with types of agricultural crops and how they are farmed. CEQA Guidelines Section 15126.2(a) explains that “[a]n EIR shall identify and focus on the significant effects of the proposed project on the environment.” Therefore, only the impacts of agricultural changes caused by adoption of the 2040 General Plan need to be addressed in the EIR. The 2040 General Plan does not modify the types of crops that can be grown in unincorporated Ventura County, nor does it contain policies or implementation programs that would encourage a shift to growing a particular crop or crops. As demonstrated by the policies and implementation programs of the 2040 General Plan listed on draft EIR pages 4.2-6 through 4.2-9, the 2040 General Plan policies focus on agriculture as a category, and there are no policies regarding specific crops. Additionally, the County is unaware of any evidence that supports an assertion that more industrial hemp would be grown in the unincorporated County as a result of adoption of the 2040 General Plan. Therefore, the draft EIR odor analysis does not need to address odors from industrial hemp farming.

Although not related to the 2040 General Plan, the Ventura County Board of Supervisors adopted an urgency ordinance on February 25, 2020, extending, for a period of 10 months and 15 days, a prohibition on the outdoor planting of industrial hemp in any part of the unincorporated area within 0.5 mile of (i) any land within a city zoned for residential use, (ii) any existing residential community in the unincorporated area of Ventura County or (iii) any school.

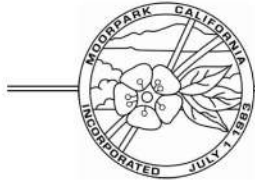
To the extent that additional agricultural odors may result from agricultural operations in the future and affect existing sensitive receptors, the County’s existing process would address these odors. This process is explained under Impact 4.3-6 in Section 4.3, “Air Quality,” of the draft EIR. For clarification, the text on page 4.3-24 has been revised as shown below.

To deter ~~from~~ potential conflicts with existing agricultural land uses, as part of the Right to Farm ordinance, ~~the County~~ sellers of real property ~~is~~ are required to give notice of this ordinance to buyers of real property located in the county. The County also has a mediation process for any disputes involving agricultural land uses and issue opinions on whether certain agricultural land uses constitute a nuisance. The County’s “Right to Farm” ordinance serves to mitigate issues regarding exposure of sensitive receptors to odors from agricultural land and operations while protecting agricultural land uses in the county. This ordinance would serve to protect agricultural lands in the county during implementation of the 2040 General

Plan and mitigate issues regarding exposure of sensitive receptors to odors from agricultural land operation that may be considered a nuisance.

The draft EIR odor impact analysis therefore adequately addresses agricultural odor impacts of the proposed project.

- A7-3 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- A7-4 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- A7-5 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- A7-6 Table 5-2 in the draft EIR uses county-specific demographic projections prepared by Southern California Association of Governments (SCAG) for the Final 2016 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) to describe forecasted growth within the incorporated cities as part of the analysis of cumulative impacts. This reflects the data in the adopted RTP/SCS that was available at the time the notice of preparation for the draft EIR was published in January 2019 (the 2020 RTP/SCS had not yet been adopted). Note also that the population estimates provided by the City are roughly 4,000 less than those provided in the 2016 RTP/SCS over a 20-year time span. This variation would not change the cumulative analysis or conclusions in the draft EIR. Refer to Master Response MR-2 for further discussion of population projections.



CITY OF MOORPARK

Letter
A8

COMMUNITY DEVELOPMENT DEPARTMENT | 799 Moorpark Avenue, Moorpark, Calif
Main City Phone Number (805) 517-6200 | Fax (805) 532-2540 | www.moorparkca.gov

February 27, 2020

Ventura County Resource Management Agency, Planning Division
ATTN: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009

Subject: Comments Regarding the Draft Environmental Impact Report (EIR) for the County of Ventura Draft 2040 General Plan

Mrs. Curtis,

Thank you for providing the opportunity to provide comments regarding the Draft EIR for the County of Ventura Draft 2040 General Plan. The City of Moorpark requests that you consider the following:

Comment 1

The City of Moorpark had previously provided comments on July 3, 2015 and August 16, 2019 regarding a desire to have certain regional roadway improvements acknowledged as priorities in the Circulation Element and, by extension, the EIR. These items do not appear to be included, either directly or indirectly, in the current draft. Our City Council has identified traffic improvements as a strategic priority. We are therefore resubmitting our request that the following projects are identified within the goals and policies of the Circulation Element and EIR:

- Improvements to Grimes Canyon Road, including the realignment of Hitch Boulevard at Los Angeles Avenue; and
- Construction of the Broadway Road connection to the State Route 23 bypass, as outlined in the 2009 Ventura County Congestion Management Plan.

A8-1

Additionally, the Draft Circulation Element (page 4-3) establishes a Level of Service (LOS) standard of "E" for State Route (SR) 118, immediately west of the City of Moorpark. This condition should be addressed and improved in the General Plan and can be mitigated with the construction of an additional lane of travel in each direction. The draft EIR and General Plan Circulation Element should consider mitigation the LOS E condition and circulation on this corridor of SR118.

A8-2

Comment 2

JANICE S. PARVIN
Mayor

CHRIS ENEGREN
Councilmember

ROSEANN MIKOS, Ph.D.
Councilmember

DAVID POLLOCK
Councilmember

KEN SIMONS
Councilmember

Comments Regarding the Draft EIR for the County of Ventura Draft 2040 General Plan
February 27, 2020
Page 2 of 5

Page 4.13-1 states the following (emphasis added):

ENVIRONMENTAL SETTING

In addition to the information provided in Section 11.6, “Noise and Vibration,” of the Background Report (Appendix B), the following information is relevant to understanding and evaluating the potential noise and vibration impacts of the 2040 General Plan.

The existing traffic noise evaluation included in the Background Report (Appendix B) analyzed a number of roadway segments that are located outside of the County’s jurisdiction. In addition, the traffic noise assessment included in the Background Report (pages 11-88 to 11-97) was based on traffic data from 2014 and 2015. Since the preparation of the Background Report, more recent traffic data are available. **For the purposes of the analysis, the traffic noise modeling was updated to only evaluate roadway and highway segments within the unincorporated portions of the county that are regularly counted by the County’s Public Works Agency and to include updated traffic counts conducted in 2017 and 2018.** Table 4.13-1 provides the modeled existing noise levels at 50 feet from the roadway, as well as distances to the 60, 65, and 70 A-weighted decibel (dBA) community noise equivalent level (CNEL) contour for all modeled roadways. Detailed noise modeling inputs are provided in Appendix E.

A8-3

Pursuant to the requirements of the California Environmental Quality Act, the EIR must evaluate traffic noise modeling for all roadway and highway segments that are within the scope of the DEIR and Draft General Plan. The scope of analysis in the EIR should not be limited to roadways that may or may not be “counted” by the County Public Works Agency.

Comment 3

Table 4.13-1 Existing Noise Contour Distances and Table 4.13-6 Projected 2040 Noise Levels and Contours: Please update this section to include a map or exhibit that more clearly indicates the limits of each “corridor and segment”. In many cases, the scope of each corridor and segment are not clearly identified. Additional comments may be provided when the limits of the corridors are fully understood.

A8-4

Comment 4

Table 4.13-1 Existing Noise Contour Distances and Table 4.13-6 Projected 2040 Noise Levels and Contours: Corridor and Segment 105 references “Walnut Avenue north of Los Angeles Avenue (SR 118)”. “Walnut Street” is not within the City of Moorpark; please clarify whether this is intended to reference Walnut Avenue or Walnut Canyon Road. As mentioned in Comment 3, a map or exhibit would also assist in identifying what this corridor includes.

A8-5

Comment 5

Page 4.13-8 states the following:

Generate new or additional transit uses or heavy vehicle (e.g., semi-truck or bus) trips **on uneven roadways** located within proximity to sensitive uses that has the

A8-6

Comments Regarding the Draft EIR for the County of Ventura Draft 2040 General Plan
 February 27, 2020
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potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria of the transit use thresholds shown in Table 4.13-3 below.

A8-6
 cont.

This section should be updated to identify the thresholds used to determine an uneven roadway or include a map or exhibit that identifies where these conditions exist.

Comment 6

Page 4.13-9 identifies Policy HAZ-9.2 for Noise Compatibility Standards and provides the following mitigation:

4. New noise generators, proposed to be located near any noise sensitive use, shall incorporate noise control measures so that ongoing outdoor noise levels received by the noise sensitive receptor, measured at the exterior wall of the building, do not exceed any of the following standards:

- a. Leq1H of 55dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.;
- b. Leq1H of 50dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.; and
- c. Leq1H of 45dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.

A8-7

This mitigation measure may not be sufficient to address noise impacts presented by increased operations of *existing* noise generators. This language should be updated to clarify that the mitigation measure will apply to all new noise generators and also existing noise generators that may be modified to expand or intensify the noise generated.

Comment 7

Page 4.13-10 includes Policy HAZ-9.3:

Policy HAZ-9.3: Development Along Travel Routes. The County shall evaluate discretionary development for noise generated by project-related traffic along the travel route to the nearest intersection which allows for movement of traffic in multiple directions. In all cases, the evaluation of project-related roadway noise shall be evaluated **along the travel route(s) within 1,600 feet of the project site.**

A8-8

The use of a 1,600 foot boundary in order to determine whether or not a proposed development will impact roadway noise is not clearly explained and can appear arbitrary. The term “travel routes” is also not clearly defined and open to interpretation (i.e. private driveways, access easements, public rights-of-way). The noise impacts associated with major new development do not cease when trucks travel 1,600 feet beyond the project site. Accordingly, this policy should be developed further to evaluate and mitigate the noise impacts along the likely travel routes serving the project.

Comments Regarding the Draft EIR for the County of Ventura Draft 2040 General Plan
February 27, 2020
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Comment 8

Page 4.13-14 includes the following:

15. Select truck routes for material delivery and spoils disposal so that noise from heavy-duty trucks will have a minimal impact on noise sensitive receptors. **Proposed truck haul routes are to be submitted to the County Transportation Division for approval.**

a. Conduct truck loading, unloading, and hauling operations so noise and vibration are kept to a minimum.

b. Route construction equipment and vehicles carrying soil, concrete or other materials over streets and routes that will cause the least disturbance to residents in the vicinity of construction sites and haul roads.

c. Do not operate haul trucks on streets within 250 feet of school buildings during school hours or hospitals and nursing homes at any time, without a variance.

d. Submit haul routes and staging areas to the County Transportation Division for approval, at least 30 days before the required usage date.

If the above listed construction equipment noise control measures are not sufficient to reduce noise levels, the project would be required to install construction noise curtains, blankets, and barriers or receptor noise control barriers detailed in the *Construction Noise Threshold Criteria and Control Plan* to ensure noise levels are reduced below applicable County noise standards. The 2040 General Plan policies and measures listed in the *Construction Noise Threshold Criteria and Control Plan* would require individual development projects to include numerous noise-reducing techniques and minimize noise at receiving land uses. The effectiveness of these measures would be ensured through Policies HAZ-9.4 and HAZ-9.2, which require the implementation of mitigation developed through project-level acoustical analyses. Because noise levels generated from construction under the 2040 General Plan would be temporary and reduction measures would be implemented to ensure construction noise would not exceed applicable standards at nearby receptors, this impact would be less than significant.

A8-9

Please update this item to identify the specific criteria upon which the County Transportation Division would be evaluating proposed truck haul routes, including items a. through d. As written, it appears as though the routes are submitted for summary approval, with no evaluation or discretion. It is also requested that language is included to require the County Transportation Division to notify the appropriate City counterparts within any jurisdictions that may be impacted by the proposed truck routes and provide an opportunity to receive feedback received prior to approving a truck haul route.

We sincerely appreciate your consideration of these items and look forward to continued collaboration on issues that cross jurisdictional boundaries. Please feel free to contact me at (805) 517-6251 or Dspondello@moorparkca.gov if you would like to discuss further.

A8-10

Comments Regarding the Draft EIR for the County of Ventura Draft 2040 General Plan
February 27, 2020
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Regards,

A handwritten signature in black ink, appearing to be the name 'Douglas Spondello'.

Douglas Spondello
Planning Manager

CC:

Troy Brown, City Manager
Karen Vaughn, AICP, Community Development Director
Sean Corrigan, City Engineer/Public Works Director

| | |
|----------------------|-------------------------------------------------------------------------------------|
| Letter A8 | City of Moorpark Douglas Spondello, Planning Manager February 27, 2020 |
|----------------------|-------------------------------------------------------------------------------------|

A8-1 The 2040 General Plan and draft EIR, including the Background Report, include general programmatic as well as specific project descriptions which address this comment. Implementation Program D in the 2040 General Plan describes the County’s commitment to continue working with the cities, the California Department of Transportation (Caltrans), and regional partners to identify and fund needed roadway improvements (refer to page 4-35 of the 2040 General Plan). Implementation Program A goes further and commits the County to update its Traffic Impact Mitigation Fee Program every 5 years. As in the past, these updates are done in concert with the City of Moorpark and the other cities in Ventura County, as well as Caltrans, to ensure that all needed projects are identified and sufficient funding is collected among all jurisdictions.

In addition to these programmatic responses to our roadway needs, Table 6-30 within the Background Report lists mid-term improvement projects from the County’s 7-year Capital Improvement Program (CIP) list for the Congestion Management Program. This list is limited to the improvements either directly associated with roadways in the unincorporated areas of the county or that would serve to benefit the unincorporated areas. The list is financially constrained, but not fully programmed. Financially constrained means that the improvements are within the total projected revenue estimate assuming historical trends continue into the future. Programmed means that the improvement has an identified funding source and is included in a programming document (i.e., State or Federal Transportation Improvement Program). Mid-term projects have not yet been programmed. However, the list is consistent with the Ventura County Transportation Commission’s (VCTC) Regional Transportation Improvement Program (RTIP). VCTC is the agency responsible for developing the RTIP for Ventura County working cooperatively with Caltrans. The RTIP is the regional component of the State Transportation Improvement Program (STIP), and is comprised of a five-year list of capital improvement projects to be funded from VCTC’s share of Regional Improvement Program funds for the period starting July 1, 2020 and ending June 30, 2025.

Within the Background Report, Table 6-30, RTIP project #5A0707 has been identified – Grimes Canyon Road and Hitch Blvd Realignment at State Route (SR) 118, \$6,127,000.

A8-2 The establishment of a level of service (LOS) “E” standard for SR 118 is a County policy decision. The current LOS “E” standard shown in the draft 2040 General Plan is based largely on past direction from the Ventura County Board of Supervisors (Board). When the Board considers the 2040 General Plan for formal adoption, it may consider a change in this standard. Regardless, the Background Report includes in its list several projects to improve SR-118 west of Moorpark, including the following:

- ▶ Table 6-27: Project #11 – Grimes Canyon Road at SR 118 (Los Angeles Avenue), Intersection Improvements. Add turn lanes for east and west bound traffic.
- ▶ Table 6-28: SR 118 (Los Angeles Avenue) – Somis Road (SR 34) to Moorpark City Limits. Widen from two to four lanes.
- ▶ Table 6-30: RTP# 50M0701 – Construct New Weight Station on SR 118 in Moorpark.
- ▶ Table 6-30: RTP# 5G0102 – SR 118 Near Grimes Canyon Road – Construct Crossover for the Union Pacific Railroad tracks.

Regarding the comment to consider mitigation of the LOS E condition in the draft EIR, the draft EIR explains that Section 15064.3 was added to the California Environmental Quality Act (CEQA) Guidelines effective December 28, 2018 as part of a comprehensive guidelines update and addresses the determination of significance for transportation impacts under CEQA. This section requires that transportation impact analysis be based on VMT instead of a congestion metric (such as LOS) and states that a project's effect on automobile delay shall not constitute a significant environmental impact. Thus, LOS is not analyzed in the draft EIR (page 4.16-1).

A8-3

Section 15146 of the State CEQA Guidelines states that the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR, and that an EIR on a local general plan need not be as detailed as an EIR on the specific construction projects that might follow. Section 15168 of the State CEQA Guidelines states that a program EIR can allow the lead agency to consider broad policy alternatives and program wide mitigation measures. Traffic noise levels were evaluated based on a representative sample of the unincorporated county's roadway and highway segments. The analysis included traffic noise modeling for 110 roadway segments and 21 highway segments located throughout the unincorporated County. The segments studied included a range of traffic conditions, from low-speed rural roads, to higher-speed arterials, and highways, thereby providing a representative sample of the traffic noise in the unincorporated county. There is no CEQA requirement to perform traffic noise modeling for "all" roadways and highways in the county as asserted by the commenter. This analysis evaluates impacts based on the best available information at the time, is consistent with the programmatic nature of the EIR, and is consistent with CEQA.

A8-4

The Ventura County Initial Study Assessment Guidelines (ISAG) provide threshold of significance criteria consistent with State CEQA Guidelines. The significance threshold criteria for noise impacts state that any project that produces noise in excess of the standards for noise in the Ventura County General Plan or applicable Area Plan, has the potential to cause a significant noise impact. These significance threshold criteria are consistent with Appendix G of the State CEQA Guidelines, which indicates that noise impacts should be evaluated to determine if the project would result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the

project in excess of standards established in the local general plan or noise ordinance. The draft EIR evaluated traffic noise levels generated by the project under Impact 4.13-2 and Impact 4.13-3 in Section 4.13, "Noise and Vibration." The draft EIR discussion was based on the standards identified in the Ventura County General Plan, consistent with the ISAG and State CEQA Guidelines. Both the ISAG and the State CEQA Guidelines do not require that a contour map or exhibit be included. Noise contours for roadway and highway segments are identified in Table 4.13-6 (page 4.13-16 of the draft EIR). The table describes roadway and highway segments by direction and street/highway name to provide location. The table provides distances in feet from each roadway and highway segment centerline to the point where noise levels reach 60 dBA, 65 dBA, and 70 dBA (i.e. noise contour lines) for each segment. Therefore, noise contours are evaluated appropriately to determine noise traffic impacts, consistent with the threshold criteria and CEQA.

- A8-5 The draft EIR evaluates traffic noise levels roadway and highway segments within the unincorporated county and does not evaluate roadway or highway segments within the incorporated cities. Table 4.13-1 and Table 4.13-6 evaluate Segment 105 which is accurately referenced as Walnut Avenue north of Los Angeles Avenue (SR 118). Walnut Avenue is located in the southcentral portion of the unincorporated county, west of the unincorporated community of Somis. Please refer to the response to comment A8-4 regarding a contour map or exhibit.
- A8-6 The language referenced by the commenter is derived from the County of Ventura's ISAG. The ISAG do not define or identify the thresholds used to determine "uneven roadways." However, this language is common in evaluating vibration impacts and is used in the Federal Transit Administration's (FTA's) Transit Noise and Vibration Impact Assessment (2006). Based on the FTA, unevenness in the road surface can occur from washboard surfaces, bumps, potholes, expansion joints, speed bumps, driveway transitions, or other design features. The draft EIR analysis under this threshold of significance was evaluated based on the FTA description of roadway unevenness.
- A8-7 The language referenced by the commenter is included in Policy HAZ-9.2 of the 2040 General Plan, referenced on page 4.13-9 of the draft EIR, and is not a draft EIR mitigation measure. The draft EIR evaluated impacts related to the increase in operational stationary noise under Impact 4.13-4 and determined that General Plan Policies HAZ-9.1, HAZ-9.2, and HAZ-9.5 as well as the County's zoning ordinances would ensure noise-sensitive land uses are not exposed to noise levels above County noise standards. An increase in operations of existing noise generators would not result in an increase in ambient noise levels. An increase in ambient noise levels would result from new noise-generating sources or the combination of new noise-generating sources with existing noise-generating sources. CEQA does not require analysis of noise impacts from existing noise sources. In addition, existing noise sources have previously been evaluated and permitted and are required to adhere to existing applicable standards and any applicable conditions of those permits. The draft EIR addresses potential increases in ambient noise levels consistent with Appendix G of the State CEQA Guidelines.

- A8-8 The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. Note that this policy is intended to require evaluation of noise attributable to traffic generated by new development. It requires study of all roadways within 1,600 feet of the project site (from the site to the nearest intersection that allows traffic to turn in multiple directions). No thresholds are set by the policy.
- The draft EIR includes a programmatic evaluation of the potential for the 2040 General Plan to accommodate development that leads to traffic noise increases (see Impact 4.13-3, beginning on page 4.13-19 of the draft EIR). This evaluation looks at all proposed policies, including Policy HAZ-9.3, and concludes that there would be a significant impact. Mitigation Measure NOI-1 of the draft EIR proposes a policy that would require discretionary development to implement noise reduction measures to reduce project-generated traffic noise.
- A8-9 The commenter requests additional details regarding the evaluation of proposed truck haul routes by the County Transportation Division. The commenter also requests that notification be provided to the appropriate city counterparts. The language referenced by the commenter is extracted from the County of Ventura Construction Noise Threshold Criteria and Control Plan, which is an existing County program that is not changed by the 2040 General Plan. No specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in the comment. Therefore, no further response is provided. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- A8-10 The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.



OFFICE OF THE CITY MANAGER

*James Vega, City Manager 401 S.
Ventura Street, Ojai, CA 93023*

Letter
A9

February 26, 2020

Ventura County Board of Supervisors
800 S. Victoria Avenue
Ventura, CA 93009

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

RE: 2040 County General Plan Update – EIR Comments

Honorable Board Members and Ms. Curtis:

The Ojai City Council is very concerned about air pollution and the effects of Climate Change on our city and its residents. We are experiencing the drastic effects of Climate Change, as evidenced by the Thomas Fire, water shortages, and the persistent drought. We have adopted a Climate Emergency resolution and have created a Climate Emergency Mobilization Committee to make recommendations to council on actions the City can take to reduce emissions of greenhouse gases and remove them from the atmosphere.

A9-1

Accordingly, we are submitting the following comments.

1. In September, the Board of Supervisors approved a number of General Plan policies and programs designed to achieve unincorporated Ventura County’s fair share of greenhouse gas emission reductions in line with the State’s reduction targets (41.3% reduction of 2015 emissions by 2030, 61.9% reduction by 2040, and 80.4% reduction by 2050). However, in the draft EIR, is the statement “...the County... cannot conclude, at this program level of analysis, that future GHG emissions in the county under the 2040 General Plan would be sufficiently reduced to meet the State’s 2030 or post-2030 targets.”

A9-2

We find this conclusion to be unacceptable. As proposed, the General Plan has failed to accomplish its own stated objective – achieving the County’s fair share of GHG emission reductions. This must be remedied. We are experiencing a Climate Emergency in Ventura County

and County government must do it fair share to deal with it. General Plan policies should clearly demonstrate that the County will meet or exceed State and County GHG emission reductions. Failure to make this demonstration is a serious flaw in the draft EIR and draft General Plan.

A9-2
cont.

2. One of the major source categories of air pollution and greenhouse gas emissions affecting Ojai is the oil and gas industry. Ojai is downwind of many O&G sources in both the Ojai Valley and Ventura River Valley.

The Board of Supervisors in September approved two important new policies that are intended to reduce negative impacts of the O&G industry, particularly with respect to air pollution, climate change, and other public health and safety impacts:

Policy COS-7.7: Conveyance for Oil and Produced Water. The County shall require new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be trucked

Policy COS-7.8: Gas Collection, Use, and Disposal. The County shall require that gases emitted from all new discretionary oil and gas wells shall be collected and used or removed for sale or proper disposal. Flaring or venting shall only be allowed in cases of emergency or for testing purposes.

A9-3

With respect to these two policies, staff and their consultant have stated that the two policies would result in an impact (loss of availability of a known petroleum resource that would be of value to the region and residents of the state), and to mitigate that impact staff have proposed to change the two policies (by adding mitigation measures PR-2 and PR-3) so as to allow flaring and trucking of oil and produced water. Incredibly, the proposed mitigation measures would effectively cancel out the two policies adopted by the Board, and would cancel out the benefits of the original policies in reducing air pollution and greenhouse gas emissions, and providing other health and safety benefits.

We strongly recommend that mitigation measures PR-2 and PR-3 be rejected and removed from the EIR, and that the original policies COS-7.7 and COS-7.8 adopted by the Board be retained.

3. The greenhouse gas emission inventory in the EIR is flawed, and does not accurately provide an inventory of greenhouse gases in the County. As an example, realistic methane global warming potential and industrial energy uses were not accurately documented. Comprehensively addressing Climate Change requires starting with an accurate emission inventory. We recommend that the County contract with the APCD or a qualified outside consultant to produce a more accurate and valid GHG emission inventory.

A9-4

In summary, we strongly recommend that the Board of Supervisors exercise leadership on behalf of the citizens of the County and take a stand in these matters, and communicate with the County staff in the strongest manner possible the City of Ojai's opposition to what we consider to be the County staff's inappropriate attempt to use administrative maneuvers to subvert policies passed by duly elected officials – your Board of Supervisors.

A9-5

Climate Change is upon us. It is time to act aggressively.

Thank you for the opportunity to comment.

Sincerely,



James Vega,
City Manager

cc: Ojai City Council
Camarillo City Council
Fillmore City Council
Moorpark City Council
Oxnard City Council
Port Hueneme City Council
Santa Paula City Council
Simi Valley City Council
Thousand Oaks City Council
Ventura City Council

A9-5
cont.

| | |
|----------------------|----------------------------------------------------------------------|
| Letter A9 | City of Ojai James Vega, City Manager February 26, 2020 |
|----------------------|----------------------------------------------------------------------|

- A9-1 The information summarizing the City of Ojai’s concerns and actions regarding air pollution and climate change are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- A9-2 This comment concerns the alignment of the 2040 General Plan’s greenhouse gas (GHG) reduction targets with State policies. See Master Response MR-1 regarding GHG reduction planning concerns.
- A9-3 Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements,” and Section MR-4.F, “Flaring,” regarding the findings and conclusions related to pipelines and to flaring. The commenter indicates that proposed Mitigation Measures PR-2 and PR-3 would effectively cancel out Policy COS-7.7 and COS-7.8 adopted by the Board of Supervisors. The draft EIR is an informational document required by California Environmental Quality Act (CEQA) for proposed projects, such as the draft General Plan, that may have a significant effect on the environment. The information contained in an EIR informs the public and assists the public agency’s decision makers regarding the potential environmental effects of the proposed project under review. CEQA’s EIR process is different than the public agency’s legislative decision-making process regarding the project; the EIR does not amend or revise the proposed project in any way. CEQA requires EIRs to describe all potentially significant environmental impacts that may be caused by the proposed project being reviewed. For each significant impact identified in an EIR, CEQA requires the EIR to propose mitigation measures that would avoid or substantially lessen the impact. CEQA also requires an EIR to describe a reasonable range of alternatives to a project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any significant effect of the project. The ultimate decisions as to whether an environmental impact is significant and, separately, whether to adopt a proposed mitigation measure or choose a proposed project alternative included in a draft EIR to address a significant impact, are made by the decision-making body of the public agency conducting the CEQA review based on substantial evidence in the record. The public agency is not required to adopt every potential mitigation measure or alternative included in a draft EIR and may instead reject a mitigation measure or alternative if it is found to be infeasible based on substantial evidence in the record. A finding that a mitigation measure or alternative is infeasible may be based on environmental, economic, social, technological or other factors. If a mitigation measure or alternative is rejected as infeasible, and a significant environmental impact would occur without the mitigation measure or alternative, the public agency may still approve the project by adopting a statement of overriding considerations based on a finding that the project’s overall benefits outweigh the project’s significant environmental impacts.

Here, the draft EIR includes County staff’s determinations that, pursuant to the County’s Initial Study Assessment Guidelines at Section 3b (Mineral Resources – Petroleum), Policy COS-7.2 (Oil Well Distance Criteria) would result in a potentially significant impact to mineral resources by hampering or precluding access to

petroleum, and that, pursuant to Appendix G to the CEQA Guidelines at Section XII (Mineral Resources), Policies COS-7.7 (Conveyance of Oil and Produced Water) and COS-7.8 (Gas Collection, Use, and Disposal) would result in a potentially significant impact to mineral resources by resulting in the loss of availability of known petroleum resources that would be of value to the region and state. As a result of these draft significance determinations, and as legally required by CEQA, the draft EIR proposes mitigation measures (Mitigation Measures PR-1, PR-2, and PR-3) that County staff determined would substantially lessen the impact of the policies. Because the project under CEQA review consists of the Board of Supervisors' (Board's) proposed 2040 General Plan, including the subject oil and gas-related policies, County staff's proposed mitigation measures consist of potential revisions to the policies themselves in accordance with CEQA Guidelines sections 15097, subd. (b), and 15126.4, subd. (a)(2). As explained above, in proposing that these policies may be revised to mitigate the potentially significant impact of the policies, County staff did not legislatively amend the draft policies themselves, but rather fulfilled CEQA's legally required informational requirements. The ultimate decisions as to whether the environmental impacts of these policies are significant, and separately, whether to revise the policies in order to mitigate any potentially significant impacts, will be made by the Board based on substantial evidence in the record.

In this regard, the Board may conclude that any or all of the policy revisions/mitigations measures set forth in the draft EIR are infeasible and adopt a statement of overriding considerations concluding that the benefits of adopting the policies, as originally proposed by the Board, would outweigh any significant environmental impacts that would result from the policies. In particular, the Board may conclude that, on balance, the environmental benefits of the Board-proposed policies – such as avoidance or mitigation of air pollutants and greenhouse gas emissions, health risks, hazards, traffic safety issues, biological impacts, and the existence of other environmental, social and/or economic factors – outweigh the policies' potential for hampering or precluding access to, or resulting in a loss of availability of, known petroleum resources.

In sum, the purpose of CEQA and the County's draft EIR is to provide information and mitigation options to the public and the County's decision-makers. The draft EIR does not make any legislative changes to the Board-proposed draft General Plan policies being reviewed.

- A9-4 This comment concerns the GHG inventory's documentation of global warming potential values, the accuracy of GHG emissions associated with industrial energy use, and a recommendation for the County to contract with Ventura County Air Pollution Control District or a third party to prepare its GHG inventory. See Master Response MR-1 regarding GHG reduction planning concerns.
- A9-5 The recommendation for the Board of Supervisors to exercise leadership, take a stand, and communicate with County staff regarding climate change is noted. The comment is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

Jeffrey Lambert
Community Development Director
 Community Development Department
 214 South C Street
 Oxnard, CA 93030
 (805) 385-7882
 jeffrey.lambert@oxnard.org



Letter
A10

February 27, 2020

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740

RE: City of Oxnard Comments on Analysis of Environmental Impacts for Draft 2040 General Plan

The City of Oxnard (City) has received and reviewed the Draft Environmental Impact Report (DEIR) for the proposed County of Ventura (County) 2040 General Plan comprehensive update. The 2040 General Plan proposes to set forth the County’s vision of its future and identify the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including but not limited to land use, climate change, agriculture, transportation, hazards, public facilities, health and safety, environmental justice, and resource conservation out to the year 2040.

The City appreciates the opportunity to provide comments on the 2040 General Plan DEIR. The City is also appreciative of the ongoing working relationship and cooperation between the City and the County. The City looks forward to participating in the County’s 2040 General Plan update process.

City of Oxnard DEIR Comments

City comments follow DEIR Sections as follows:

2.1 –Introduction

2.2.5- Structure and Content of the General Plan: Land Use Diagram

"Two changes are also proposed for lands within or adjacent to the incorporated cities in the county. As the County does not have land use authority over lands within the cities, these areas are noted as “City” on the 2040 General Plan Land Use Diagram and not given a land

A10-1

A10-2

use designation. The final land use designation change is the proposed removal of the Urban Reserve Overlay. This overlay is replaced by a policy that references the use of adopted spheres of influence to provide the same geographic boundary."

The City appreciates the County's efforts to clarify the relationship regarding land use authority between the County and surrounding cities by designating lands within the jurisdictional boundaries of surrounding cities as "City" in the Land Use Diagram. The new designation of "City" and the absence of a land use designation will clearly alert the general public that all lands with the designation are located within a city and that the general public should seek assistance from that appropriate city regarding all land use inquiries. Additionally, the City appreciates the County clearly stating that the County does not have land use authority over lands within the cities. The aforementioned statement will alleviate confusion to the general public about who is responsible for making land use decisions and will assist cooperation between surrounding cities and the County.

A10-2
cont.

4.2 Agriculture

4.2.2 Environmental Impacts and Mitigation Measures

Mitigation Measures

Mitigation Measure AG-1: New Policy AG-X Avoid Development on Agricultural Land
The County shall include the following new policy in the 2040 General Plan.

Policy AG-X Avoid Development on Agricultural Land

"The County shall ensure that discretionary development located on land identified as Important Farmland on the State's Important Farmland Inventory shall be conditioned to avoid direct loss of Important Farmland as much as feasibly possible."

Mitigation Measure AG-2: New Implementation Program AG-X: Establish an Agricultural Conservation Easement

"The County shall include the following new implementation program in the 2040 General Plan.
Implementation Program AG-X: Establish an Agricultural Conservation Easement
Applicants for discretionary projects that would result in direct or indirect loss of Important Farmland in exceedance of the acreage loss thresholds listed in the table below shall ensure the permanent protection of offsite farmland of equal quality at a 2:1 ratio (acres preserved: acres converted) through the establishment of an offsite agricultural conservation easement."

A10-3

The City, California State Coastal Conservancy (CSCC) and The Nature Conservancy (TNC) (Project Partners) are currently undertaking the Ormond Beach Restoration and Access Plan (OBRAP). The OBRAP area encompasses approximately 630 acres that are entirely within the

City of Oxnard, as is a significant portion of the broader Ormond Beach area. Property outside the OBRAP, in the Eastern Ormond Beach area between Edison Drive and Arnold Road, is within the County. The County also maintains a portion of Arnold Road. The Ventura County Watershed Protection District manages Tsumas Creek, the Ormond Lagoon Waterway, and the Hueneme Drain, including a flood control easement along the Ormond Lagoon Waterway. These waterways traverse lands owned by TNC and the City within the OBRAP area. The OBRAP area and the broader Ormond Beach area also straddle both the County non-coastal and Coastal Zones.

Ormond Beach is considered by wetland experts to be one of the most important wetland restoration opportunities in southern California. Unlike other coastal wetland restoration projects in southern California, there is room to restore the approximate extent of historic wetlands, provide surrounding upland habitat to complete the ecosystem and accommodate sea level rise. When combined with the adjacent Mugu wetlands, it will be one of the largest wetland systems in Southern California. Currently public access is limited. This plan will create restoration alternatives and enhance public enjoyment of Ormond Beach. The Project Partners recently held a public workshop in August of 2019 to present the draft OBRAP to the community and stakeholders. A number of County department representatives participated in the public workshop and provided valuable comments. The Partners greatly appreciate the ongoing participation and assistance of the County during the development of the OBRAP.

A10-3
cont.

Expansion of the project area may occur in the future as a result of new land acquisitions. The OBRAP has identified a few potential land acquisitions opportunities, some of which are located within the County boundaries. Based on Mitigation Measures AG-1 and AG-2, it would potentially require the Project Partners to provide permanent protection of offsite farmland of equal quality at a 2:1 ratio (acres preserved: acres converted) through the establishment of an offsite agricultural conservation easement. The City believes that the policy should be amended to exempt restoration and similar plans from this requirement. The City believes that restoration plans like the OBRAP that are intended to provide regional open space and coastal access opportunities for the general public, protection and further enhancement of vital ecosystems and protection from sea level rise should not be considered “discretionary development” (i.e. hardscape development) and required to provide permanent protection of offsite farmland of equal quality at a 2:1 ratio (acres preserved: acres converted) through the establishment of an offsite agricultural conservation easement.

4.6 Energy

The Energy chapter within the DEIR fails to establish a specific reduction target but references reduction mandates commensurate with State standards. By inference, reduction targets are stated as being able to be met. The analysis does not quantify how the reduction targets will be

A10-4

met with the added housing units to be constructed over the life of the 2040 General Plan, inclusive of the Housing Element. Additionally, Chapter B (Climate Change) of the DEIR identifies reduction targets (see page B-13). The City recommends that these targets be quantified in the Energy section to demonstrate how reductions will be met and that the GHG citation and evaluation criteria for inventory (ICLEI 2013) be referenced in this section.

A10-4
cont.

4.8 Green Gas Emissions

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.8-2: Conflict with an Applicable Plan, Policy, or Regulation for the Purpose of Reducing the Emissions of GHGs

Impact 4.8-2 (page 4.8-50) states, “the County cannot meaningfully quantify the effect of all its 2040 General Plan policies and programs on future GHG emissions, and there, it cannot conclude, at this program level of analysis, that future GHG emissions in the county under the 2040 General Plan would be sufficiently reduced to meet the State’s 2030 or post-2030 targets.” The City recommends that policies and implementation measures be prioritized with measures to achieve greater reductions identified. Prioritization will also assist the County when budgeting and evaluating competing priorities. This could also be replicated in Appendix B.

A10-5

4.11 Land Use Planning

Section 4.11.2 – Environmental Impacts and Mitigation Measures

2040 General Plan Policies and Implementation Programs

Agriculture Element

Policy PFS-5.2: Land Use Compatibility with Solid Waste Facilities

“The County shall review and condition discretionary development near landfills and other solid waste processing and disposal facilities (including facilities for composting, green waste, food waste) to avoid incompatible development and future nuisance complaints from encroachment by incompatible land uses.”

A10-6

The City recommends that language be incorporated to Policy PFS-5.2 that would not permit the extension of discretionary permits for existing development near landfills and other solid waste processing and disposal facilities (including facilities for composting, green waste, food waste) adjacent to or near: wetlands; restoration plan areas; and areas that contain environmentally sensitive habitat, including federally and state endangered and listed species. This policy will ensure that such facilities site their operations in the appropriate zoning. The new policy language will assist in the preservation and enhancement of unique environmental settings that are becoming frequently rare in the County and will provide for additional restoration and conservation opportunities throughout the County.

4.12 Mineral

Section 4.12.2 – Environmental Impacts and Mitigation Measures

2040 General Plan Policies and Implementation Programs

Mitigation Measures

Mitigation Measure PR-1: Revised Policy COS-7.2: Oil Well Distance Criteria

The County shall include the following revised policy in the 2040 General Plan.

COS-7.2: Oil Well Distance Criteria

“The County shall require that new discretionary oil and gas wells to be located be sited a minimum of 1,500 feet from the well head to residential dwellings dwelling units and 2,500 from any school sensitive use structures which include dwellings, childcare facilities, hospitals, health clinics, and school property lines.”

The City recommends that revised policy COS-7.2 continue to require that new discretionary oil and gas wells be sited a minimum of 2,500 feet to sensitive use structures which include dwellings, childcare facilities, hospitals, health clinics, and school property lines instead of the proposed 1,500 feet. The DEIR cites the recommendations contained within the Los Angeles County LACDPH, Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County report (February 2018) and the City of Los Angeles Oil and Gas Report (July 2019) as justification for recommending the setback reduction of new discretionary oil and gas wells to sensitive use structures from 1,500 feet to 2,500 feet. However, the DEIR fails to identify how the conditions and infrastructure analyzed in the aforementioned reports relate to the conditions and infrastructure found within the County, and if the reduction in setback is adequate based on the conditions found in the County. The City recommends that the County commission a study that analyzes current oil and gas conditions in the County and how the reduction in setback will impact sensitive use structures.

A10-7

4.14 Population and Housing

4.14.2 Environmental Impacts and Mitigation Measures

Methodology

Section 4.14.2 of the DEIR states the following: “Affordable housing units are defined as moderate-income in the Coastal Zone and lower-income for the remainder of the plan area. (Lower-income is the term used to collectively refer to low-, very-low, and extremely-low income households.)” Please clarify how allowance of only moderate-income housing units in the Coastal Zone complies with State Housing Law. The allowance would have major implications on how the City and surrounding cities in the County comply with State Housing Law.

A10-8

4.17 Utilities

4.17.1 Background Report Setting Updates

Environmental Setting

Table 4.17-1 Wastewater Treatment Capacity, Ventura County

| Agency | Total Number of Connections | Rated Capacity (MGD ¹) | ADWF ² (MGD) | Treatment Level |
|---------------------------------------------------|----------------------------------------------|------------------------------------|-------------------------|-------------------------------|
| County Service Area No. 29 | 307 | N/A | 0.085 | Tertiary |
| County Service Area No. 30 | 274 | N/A | 0.2 | Tertiary |
| County Service Area No. 32 | N/A | N/A | N/A | N/A |
| County Service Area No. 34 | 1,304 | N/A | N/A | Tertiary |
| Camarillo Utility Enterprise | 57 | N/A | 0.0356 | Tertiary |
| Todd Road Jail | N/A | 0.08 | 0.044 | Secondary |
| Ventura County Waterworks District No. 1 | 10,000 (37,000 population) | 5 | 2 | Tertiary |
| Ventura County Waterworks District No. 16 | 544 (2,000 population) | 0.5 | N/A | Secondary |
| Camarillo Sanitary District | 70,000 (population, city and unincorporated) | 7.25 | 4 | Tertiary |
| Ojai Valley Sanitary District | 20,000 (customers) | 3 | 1.4 | Tertiary |
| Saticoy Sanitary District | 271 | 0.25 | 0.1 | Secondary |
| Triunfo Sanitation District | 12,300 | 16 | 9 | Tertiary |
| Camrosa Water District | 6,600 | 1.5 | 1.4 | Tertiary |
| Channel Islands Beach Community Services District | 1,800 | N/A | N/A | N/A |
| City of Oxnard | 40,000 | 32.7 | 17 20 | Tertiary Secondary |
| City of Simi Valley | 40,000 (527 unincorporated) | 12.5 | 7.8 | Tertiary |
| City of Thousand Oaks | 130,000 (population) | 14 | 6 | Tertiary |
| City of Ventura | 25,528 | 14 | 7.1 | Tertiary |

A10-9

Please correct Table 4.17.1 Wastewater Treatment Capacity, Ventura County under agency for the City of Oxnard as follows:

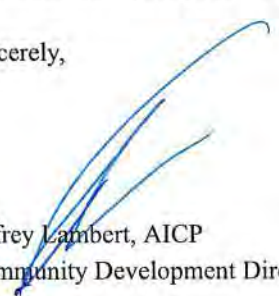
Under the ASWF(MGF) column- please change the number 17 to 20.

Under the Treatment Level column- please change the word Tertiary to Secondary.

Thank you for the opportunity to comment on the DEIR. If you have questions, please feel free to contact me at (805) 385-7882 or e-mail jeffrey.lambert@oxnard.org.

A10-10

Sincerely,


 Jeffrey Lambert, AICP
 Community Development Director

| | |
|-----------------------|-----------------------------------------------------------------------------------------------------|
| Letter A10 | City of Oxnard Jeffrey Lambert, AICP, Community Development Director February 27, 2020 |
|-----------------------|-----------------------------------------------------------------------------------------------------|

- A10-1 The information summarizing the proposed 2040 General Plan and the City of Oxnard’s opportunity to comment on the draft EIR is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- A10-2 This comment expresses support for the treatment of lands within incorporated cities in the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- A10-3 See response to comment A1-2.
- A10-4 The comment states that Section 4.6, “Energy,” of the draft EIR fails to establish a specific energy target. Energy targets were not a feature of the 2040 General Plan update; thus, no specific energy-related targets were analyzed within the draft EIR. Establishing energy targets is not required and the analysis in the draft EIR uses thresholds of significance based on the energy checklist questions from Appendix G of the State CEQA guidelines.
- A10-5 The comment cites Impact 4.8-2 and “recommends that polices and implementation measures be prioritized with measures to achieve greater (greenhouse gas) reductions.” Per Policy LU-22.2, prioritization of greenhouse gas reduction measures by the County is anticipated to occur annually in conjunction with annual budget review, as described on page 4.8-12 of the draft EIR.
- A10-6 The comment provides suggested edits to policies proposed in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- A10-7 Refer to Master Response MR-4, Section MR-4.H, “Buffers (Setback),” regarding the findings and conclusions related to setbacks.
- A10-8 The comment cites language from the draft EIR explaining the methodology used in the analysis of impacts in Section 4.14, “Population and Housing,” (page 4.1-2). This text does not define affordable housing for the purpose of subsequent planning or eliminate requirements for low income housing in the Coastal Zone in a manner that conflicts with State Housing Law.
- The analysis of potential effects on affordable housing in the draft EIR is conducted in a manner consistent with the guidance in the County’s existing Initial Study Assessment Guidelines (ISAG). At the project level, the ISAG establish that elimination of three or more dwelling units that are affordable to households with

the following income levels is considered a significant project-specific and cumulative impact on existing housing: moderate-income – coastal zone, lower-income – entire unincorporated county. By expanding the definition of affordable housing to moderate income households in the coastal zone, the ISAG establish a more conservative threshold for these areas for the purposes of CEQA analysis.

Thresholds of significance are the benchmark against which projects are evaluated to determine whether physical environmental changes that could be reasonably expected to result from project implementation would be “significant” as determined by the lead agency. The thresholds can be qualitative or quantitative, and the determination of significance can vary based upon context.

Public agencies are encouraged to develop and publish thresholds of significance that are used in the determination of the significance of environmental effects (CEQA Guidelines, § 15064.7(b)). The current ISAG, last amended by the County in April 2011, set forth the standard threshold criteria and methodology used in determining whether a project could have a significant effect on the environment. The ISAG were originally adopted in 1992 by the directors of those County agencies/departments responsible for evaluating environmental issues and by the County’s Environmental Quality Advisory Committee following a public outreach process that included public notification and workshops, and appropriate revisions. Similarly, all subsequent amendments to the ISAG have included public notification and review before their adoption in accordance with State CEQA Guidelines and the County’s Administrative Supplement to the State CEQA Guidelines.

For the purpose of evaluating the potential environmental effects of implementing the 2040 General Plan, the thresholds of significance are based on the ISAG, as well as the checklist presented in Appendix G of the State CEQA Guidelines; best available data; and the applicable regulatory standards of the County and federal and state agencies with jurisdiction over the resources at issue. As explained in Section 4.1, “Environmental Impact Analysis,” (page 4-1) and described in detail for each resource analysis, “deviation from the ISAG thresholds, which were established by the County to evaluate the impacts of individual projects, was sometimes necessary to appropriately consider the programmatic nature of a general plan for the entire unincorporated area, and to incorporate the 2019 revisions to the Appendix G checklist.”

In each of the resource-specific sections of the draft EIR (Sections 4.1 through 4.17), the “Environmental Impacts and Mitigation Measures” subsection identifies the thresholds used to determine the level of significance of the environmental impacts for the resource topic, in accordance with State CEQA Guidelines Section 15126. These thresholds appropriately set the parameters for what is evaluated in the EIR.

In Section 4.14, “Population and Housing,” ISAG Section 26, threshold 1, which evaluates the potential for elimination of affordable housing units has been combined with Appendix G question XIV(b) regarding displacement of substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere (refer to pages 4.14-2 and 4.14-3 of the draft EIR). The analysis notes that no affordable housing units would be displaced or removed because

subsequent projects would be consistent with Government Code Section 65863 (draft EIR page 4.14-6). Further, the analysis concludes that “substantial numbers of people or housing, including affordable housing, would not be displaced through implementation of the 2040 General Plan” (draft EIR page 4.14-8).

A10-9

The comment provides suggested revisions to the average dry weather flow and level of treatment in the City of Oxnard presented in Section 4.17, “Utilities,” Table 4.17-1. Table 4.17-1 on page 4.17-2 has been revised as shown below to incorporate the suggested revisions. These are minor clarifications to information presented in the draft EIR that do not affect the adequacy of the analysis or impact conclusions.

Table 4.17-1 Wastewater Treatment Capacity, Ventura County

| Agency | Total Number of Connections | Rated Capacity (MGD ¹) | ADWF ² (MGD) | Treatment Level |
|---------------------------------------------------|----------------------------------------------|------------------------------------|-------------------------|-------------------------------------|
| County Service Area No. 29 | 307 | N/A | 0.085 | Tertiary |
| County Service Area No. 30 | 274 | N/A | 0.2 | Tertiary |
| County Service Area No. 32 | N/A | N/A | N/A | N/A |
| County Service Area No. 34 | 1,364 | N/A | N/A | Tertiary |
| Camarillo Utility Enterprise | 57 | N/A | 0.0356 | Tertiary |
| Todd Road Jail | N/A | 0.08 | 0.044 | Secondary |
| Ventura County Waterworks District No. 1 | 10,000 (37,000 population) | 5 | 2 | Tertiary |
| Ventura County Waterworks District No. 16 | 544 (2,000 population) | 0.5 | N/A | Secondary |
| Camarillo Sanitary District | 70,000 (population, city and unincorporated) | 7.25 | 4 | Tertiary |
| Ojai Valley Sanitary District | 20,000 (customers) | 3 | 1.4 | Tertiary |
| Saticoy Sanitary District | 271 | 0.25 | 0.1 | Secondary |
| Triunfo Sanitation District | 12,300 | 16 | 9 | Tertiary |
| Camrosa Water District | 6,900 | 1.5 | 1.4 | Tertiary |
| Channel Islands Beach Community Services District | 1,800 | N/A | N/A | N/A |
| City of Oxnard | 40,000 | 32.7 | <u>4720</u> | <u>Tertiary</u> <u>Secondary</u> |
| City of Simi Valley | 40,000 (527 unincorporated) | 12.5 | 7.8 | Tertiary |
| City of Thousand Oaks | 130,000 (population) | 14 | 8 | Tertiary |
| City of Ventura | 25,528 | 14 | 7.1 | Tertiary |

Notes: N/A= data is not available because the County does not provide sewer service or treatment; MGD=Million Gallons per Day; ADWF=Average Dry Weather Flow.

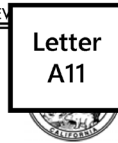
Source: Appendix B (Table 7-2) with updated service connection numbers from Public Works Agency Water and Sanitation customer database and updated treatment plant levels provided by Joseph Pope, Director, Water and Sanitation Department.

A10-10

The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.

SANTA MONICA MOUNTAINS CONSERVANCY

Los Angeles River Center & Gardens
 570 West Avenue Twenty-six, Suite 100
 Los Angeles, California 90065
 (323) 221-8900



February 24, 2020

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 South Victoria Avenue, L #1740
 Ventura, California 93009-1740

**Draft Programmatic Environmental Impact Report for the Ventura
 County Draft 2040 General Plan (PL17-0141)**

Dear Ms. Curtis:

The Santa Monica Mountains Conservancy (Conservancy) supports much of the Ventura County (County) proposed Draft 2040 General Plan Update as analyzed in the Draft Environmental Impact Report (draft EIR).

Specifically, the Conservancy supports the County’s inclusion of new policies established by the County’s Wildlife Corridor Policy as related to Conservation and Open Space Elements COS-1.3 *Wildlife Corridor Crossing Structures*, COS-1.4 *Consideration of Impacts to Wildlife Movement*, and COS-1.5 *Development Within Habitat Connectivity and Wildlife Corridors*.

The Conservancy also commends the County for proposing COS-1.6 *Discretionary Development on Hillsides and Slopes* that would require development on slopes greater than 20-percent to be sited and designed in a manner to avoid significant impacts to sensitive biological resources to the extent feasible and COS-1.8 *Bridge Crossing Design* to require new or modified road crossings over streams, wetlands, and/or riparian habitat to site bridge columns outside the riparian habitat areas, when feasible.

The inclusion of COS-1.15 *Countywide Tree Planting* to establish and support a countywide target to plan two million trees throughout the County by 2040 is commendable and an opportunity for community engagement and cooperation among public agencies, private organizations, and local businesses to help mitigate against concurrent impacts of climate change.

Further, the Conservancy fully supports the Public Facilities, Services, and Infrastructure Element PFS-10: To develop and maintain a comprehensive system of parklands and recreational facilities that meet the active and passive recreational needs of residents and visitors, as funding is available. The Conservancy has been dedicated to this goal since its

A11-1

Ventura County Resource Management Agency, Planning Division
 Draft Programmatic Environmental Impact Report for the Ventura County Draft 2040
 General Plan (PL17-0141)
 February 24, 2020
 Page 2

inception in 1980 and looks forward to coordinating with the County to help expand trails, parklands, and accessible amenities in the western Santa Monica Mountains and within the Rim of the Valley Trail Corridor.

A11-1
cont.

The Conservancy also recognizes the constraints that specific zoning classifications impose on “using” open space lands as parks and recreational opportunities. Thus, the Conservancy also supports the proposed *Implementation Program N* to establish a new Open Space zone for public lands that will be limited to parks and recreational uses.

Thank you for your consideration. Should you have any questions, please contact Paul Edelman, Deputy Director Natural Resources and Planning, at (310) 589-3200 ext. 128, edelman@smmc.ca.gov, or at the above letterhead address.

A11-2

Sincerely,



IRMA MUNOZ
 Chairperson
 #

| | |
|-----------------------|-------------------------------------------------------------------------------------------|
| Letter A11 | Santa Monica Mountains Conservancy Irma Munoz, Chairperson February 24, 2020 |
|-----------------------|-------------------------------------------------------------------------------------------|

A11-1 This comment expresses support for the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

A11-2 The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.

From: Lousen, Kendall P CIV USN NAVB VCTY PT MUGU CA (USA) <kendall.p.lousen@navy.mil>
Sent: Thursday, February 27, 2020 4:55 PM
To: Downing, Clay <clay.downing@ventura.org>
Cc: Knoll, Michele A CIV (USA) <michele.knoll@navy.mil>
Subject: NBVC Comments on DEIR Ventura County 2040 General Plan

Dear Clay,

Thank you for the opportunity to review and comment on the Public Draft Environmental Impact Report (PDEIR) for the Ventura County 2040 General Plan. Please see attached letter and enclosure from Naval Base Ventura County (NBVC) submitted on 7/30/2019 to the County of Ventura.

The Ventura County 2040 General Plan PDEIR presents an important opportunity to evaluate Naval Base Ventura County (NBVC) military influence areas and incorporating the Joint Land Use (JLUS) Study Recommendations (Sep 2015) and Recommendations from the NBVC-Point Mugu Air Installations Compatible Use Zone (AICUZ) Study (Dec. 2016). Thank you for incorporating the military-compatibility areas (MCAs) and military operational airspace and restricted use airspace areas for policies and land use evaluations for the short- and long-range planning goals of Ventura County. While Naval Base Ventura County does not wish to enter any new comments into the record, we kindly request the County to carefully consider CMAs and reinforce the comments previously submitted by NBVC in July 2019. We also encourage strategic references to the JLUS (Sep. 2015) and 2016 NBVC-Point Mugu AICUZ Study throughout the General Plan Update, which provides more current data on adverse effects from aircraft noise than the ALUCUP, which is currently referenced in the Plan.

A12-1

Again, thank you for the opportunity to review and comment on the Public Draft EIR for Ventura County 2040 General Plan.

--

V/r,

Kendall P. Lousen ("Kenny")
Acting Community Liaison Planning Officer

NAVAL BASE VENTURA COUNTY
Public Works Department (AM Branch)

311 Main Road, Bldg. #66
Point Mugu, CA 93042-5033
Phone: 805-989-9746

Email: Kendall.p.lousen@navy.mil



DEPARTMENT OF THE NAVY
 NAVAL BASE VENTURA COUNTY
 311 MAIN ROAD, SUITE 1
 POINT MUGU, CA 93042-5033

IN REPLY REFER TO:
 11010
 Ser N46VCS/0572
 30 Jul 19

Mr. Steve Bennett
 Chair, Board of Supervisors
 County of Ventura
 800 S. Victoria Ave.
 Ventura, CA 93009

Dear Chairman Bennett,

Subj: NAVAL BASE VENTURA COUNTY COMMENTS ON THE COUNTY OF
 VENTURA 2040 GENERAL PLAN PRELIMINARY PUBLIC REVIEW DRAFT

The County of Ventura 2040 General Plan presents an important opportunity to implement the strategies of the Naval Base Ventura County (NBVC) Joint Land Use Study (JLUS) and recommendations of the Air Installations Compatible Use Zone (AICUZ) Study, to incorporate key military-community compatibility components, such as noise contours, accident potential zones, military training routes, and special use airspace.

Since the 1940s, the U.S. Navy has had an important presence in Ventura County. Today, Naval Base Ventura County has an annual economic impact within Ventura County of more than \$2 billion and supports more than 20,000 direct, indirect, and induced jobs. Ventura County residents hold over 18,000 of those jobs.

We are pleased to see that the General Plan Preliminary Public Review Draft incorporates many JLUS and AICUZ strategies, particularly in Chapter 2-Land Use, Chapter 4-Circulation, Transportation, and Mobility, and Chapter 7-Hazards and Safety. For example, Goal LU-21 seeks to ensure that County plans and policies are consistent with state laws concerning military compatibility and the recommendations contained in the Naval Base Ventura County Joint Land Use Study as they relate to land use and communications. Corresponding policies include participation in a JLUS Coordination Committee, using the JLUS to guide land use and resource management decisions and plan updates, establishing Military Compatibility Areas, enhancing communications, and coordinating with NBVC on infrastructure expansions, stormwater infrastructure improvements, and capital improvements.

In particular, Policy LU-21.1 states that the County shall participate in the NBVC JLUS Coordination Committee responsible for coordination among JLUS partners and implementation of JLUS recommendations to enhance long-term coordination on military compatibility issues. Given the County's leadership and facilitation roles across jurisdictions and stakeholders, we suggest that the County consider taking a leadership role to convene and facilitate the Coordination Committee.

Naval Base Ventura County appreciates the many goals, policies, and programs related to military-community compatibility included throughout the General Plan Preliminary Public

A12-2

Subj: NAVAL BASE VENTURA COUNTY COMMENTS ON THE COUNTY OF
VENTURA 2040 GENERAL PLAN PRELIMINARY PUBLIC REVIEW DRAFT

Review Draft. As the County finalizes the Draft General Plan for environmental review and adoption, please consider the comments and suggested edits provided in Enclosure 1.

A12-3

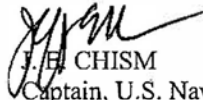
Thank you for your efforts to incorporate and foster military-community compatibility within the Draft General Plan, and thank you for the continued strong partnership between the County of Ventura and Naval Base Ventura County.

A12-4

For additional information and coordination, please contact Ms. Amanda Fagan, Community Planning Liaison Officer at COMM: (805) 989-9752 or by email: amanda.fagan@navy.mil.

A12-5

Sincerely,



J. H. CHISM
Captain, U.S. Navy
Commanding Officer

Encl (1): Comments Regarding Selected Military Compatibility Policies and References to Naval Base Ventura County, Ventura County 2040 General Plan Preliminary Public Review Draft – May 2019

| | |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Letter A12 | U.S. Department of the Navy, Naval Base Ventura County J.E. Chism, Captain, U.S. Navy Commanding Officer February 27, 2020 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|

- A12-1 The comment indicates that the Naval Base Ventura County does not have comments on the draft EIR, but reinforces comments previously submitted in July of 2019. This comment expresses support for the 2040 General Plan and is not related to the adequacy of the draft EIR. Responses to the July 2019 letter are provided below.
- A12-2 This comment expresses support for the 2040 General Plan and requests revisions to the 2040 General Plan that are not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- A12-3 The comment references an attachment to the main body of the letter that provides commentary on the specific language in the 2040 General Plan. The County has reviewed the attachment and determined that it does not contain comments on the content or conclusions of the draft EIR, nor does it raise any significant environmental issues for which a response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan. All comment letters submitted to the County on the draft EIR are provided with complete attachments in Attachment 1 to this final EIR.
- A12-4 The commenting agency's thanks for incorporation of military-community compatibility in the draft General Plan is noted. This comment is conclusory in nature and does not raise a significant environmental issue for which a response is required.
- A12-5 The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.

VENTURA COUNTY

Agricultural Policy Advisory Committee

Sanger Hedrick, Chair, District 2; Scott Deardorff, District 1; Gordon Kimball, District 3;
Patty Waters, District 4; Bobby Jones, District 5

Letter
A13

February 27, 2020

RMA Planning Division, General Plan Update
800 S. Victoria Ave, L#1740
Ventura, CA 93009-1740

RE: APAC Comments Regarding the VC 2040 General Plan EIR

The Ventura County Agricultural Policy Advisory Committee (APAC), so states that, after a unanimous vote of the quorum present at the 19 February 2020 APAC meeting, finds flaws with the Ventura County 2040 General Plan EIR. As such, the APAC requests an extension to the comment period and submits the following comments regarding the EIR and the Draft General Plan:

A13-1

First and foremost, the mitigating measures proposed in the EIR have not been sufficiently evaluated for efficacy or feasibility. For example, Mitigating Measure AG-1 has previously been rejected by LAFCo as infeasible due to the high cost associated with purchasing conservation easements. Additionally, the APAC strongly believes that Mitigation Measure AG-1 would lead to vacant land, as the General Plan does not include policies or programs that would increase the long-term viability of agriculture in Ventura County and the Mitigating Measure places land into conservation easements in effective perpetuity. Some ways to improve the mitigation of the impact would include:

A13-2

- Creation of a Conservation Easement Bank for agricultural conservation easements to facilitate both the full-value sale of and ease of purchase of said easements
- The allowance of conservation easements to be sold on portions of a parcel or for legal-nonconforming parcels to be formed as part of the sale
- Policies or programs that would reduce anti-agricultural pressures on lands within conservation easements, such as improved water access/rights, exemptions for agricultural operations from overlay and corridor requirements, and/or an improved and codified Ag/Urban Buffer Policy

AGRICULTURAL POLICY ADVISORY COMMITTEE (APAC)
 Advisory Letter to the VC BOS

Furthermore, Impact 4.2-2 is found to be "Less than Significant" with no need for additional mitigating measures solely on the basis of existing policy, ordinances, etc without an evaluation of the effectiveness of those policies at reducing impact under the existing General Plan. As recently demonstrated by Board action in enacting Ventura County Urgency Ordinance No. 4558, at least one of the cited protections does not provide the protection assumed in the General Plan and EIR, and as such should not be considered so strongly in mitigating the Impacts of allowing development near agricultural operations and soils.

A13-3


Further support for the assertions made here is included with this letter is the letter to APAC by Ventura County CoLAB. The letter provides further detail on the omissions and failures of the EIR, as well as some suggestions for improvement.

A13-4

Agriculture is unique, as an industry it is the only one so specifically regulated by the General Plan. It is also a primary part of Ventura County historically, economically, aesthetically, culturally, and in many other ways. The EIR fails to identify impacts of the General Plan to agriculture in the county, impacts that would allow the continued reduction in agricultural lands and agricultural viability. For agriculture to be a part of Ventura County's future, please take these observations and recommendations into careful consideration when revising both the EIR and General Plan itself.

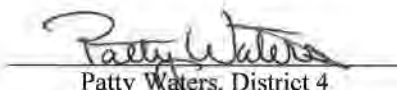
A13-5


 Sanger Hedrick, Chair


 Scott Deardorff, District 2



 Gordon Kimball, District 3


 Patty Waters, District 4

 Bobby Jones, District 5



February 19, 2020

Ventura County CoLAB
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Director

Alex Teague, Limoneira
Director

Andy Waters, Waters Family Farms
Director

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC)
County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

A13-6

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors" (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

A13-7

The EIR does not provide evidence of any of the following:

- 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
- 2) The cost per acre to purchase each category of farmland;
- 3) The anticipated cost of establishing a conservation easement for each category of farmland;
- 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
- 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
- 6) Any information that could constitute a "plan" for management of farmland in conservation easements;

Page 2 of 4

- 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
- 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
- 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

A13-7
cont.

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

A13-8

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the potential for conflicts would be minimal. This impact would be less than significant" (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

A13-8
cont.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatically” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

A13-9

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

A13-10

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

A13-11

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

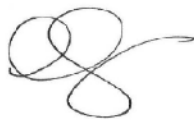
CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

- 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
- 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
- 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

A13-12

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,



Louise Lampara
Executive Director

| | |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Letter A13 | Ventura County Agricultural Policy Advisory Committee Sanger Hedrick, Chair Scott Deardorff, District 2 Patty Waters, District 4 February 27, 2020 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|

A13-1 The draft EIR was available for a 45-day review period from January 13, 2020, to February 27, 2020, in compliance with the California Environmental Quality Act (CEQA; Public Resources Code Section 21091). The commenter’s request for extension of the comment period has been noted. No extension of the comment period was granted.

A13-2 The County believes the commenter’s reference Mitigation Measure AG-1 is in error and that the commenter intended to refer to Mitigation Measure AG-2 because the comment refers to feasibility of conservation easements and placing land into conservation easements. Through Mitigation Measure AG-1 the County shall require that discretionary development located on Important Farmland shall be conditioned to avoid direct loss of Important Farmland as much as feasibly possible. Mitigation Measure AG-2 requires that applicants for discretionary projects that would result in direct or indirect loss of Important Farmland in exceedance of specified acreage loss thresholds based on Important Farmland category and 2040 General Plan land use designation shall ensure the permanent protection of offsite farmland through the establishment of an offsite conservation easement. Refer to Master Response MR-5 for a discussion of the feasibility of Mitigation Measure AG-2.

The commenter asserts that the draft EIR mitigation would lead to vacant land because the 2040 General Plan does not contain protective policies and programs and the mitigation places land into conservation easements in perpetuity. To the contrary, Impact 4.2-1 discusses numerous policies and programs that would be protective of agriculture. Mitigation Measure AG-2 also requires, among other things, that the easement run with the land and that the project applicant demonstrate the viability of the mitigation site for establishment of a permanent agricultural conservation easement; the County shall be responsible for reviewing and approving the viability determination. The commenter’s suggestions of creating a conservation easement bank and allowing easements to be sold on parts of a parcel or for legally nonconforming parcels to be formed as part of a sale would not necessarily increase the effectiveness of Mitigation Measure AG-2. As written, Mitigation Measure AG-2 provides for a process for identifying and verifying a site for permanent protection of farmland that would achieve the performance standard of ensuring permanent protection of offsite farmland of equal quality through establishment of an offsite agricultural conservation easement. No revisions have been made to Mitigation Measure AG-2 as a result of this comment.

The commenter’s concern about anti-agricultural pressures on conserved lands would be addressed by requirements specific to the conservation easement. Mitigation Measure AG-2 requires that the easement run with the land and that

there be an evaluation of the viability of the mitigation site for establishment of a permanent agricultural conservation easement. “Anti-agricultural” pressures that affect the long-term viability of a conservation easement on a parcel would be addressed through this process.

A13-3

Ventura County Urgency Ordinance 4558 prohibits the outdoor planting of industrial hemp in certain parts of unincorporated Ventura County. It was originally adopted on January 14, 2020, and has since been extended. Urgency Ordinance 4558 was prepared and adopted to address numerous complaints about odors from industrial hemp cultivation in the unincorporated area, which are often described as “skunky.” The urgency ordinance addresses these concerns temporarily, through setback requirements, while the Agricultural Commissioner develops language for a regular land use ordinance to regulate industrial hemp that will be reviewed by the County Planning Commission and presented to the Board of Supervisors for potential adoption. This process for addressing land use conflicts is consistent with the Right-to-Farm Ordinance. The commenter asserts that the adoption of Urgency Ordinance 4558 demonstrates that at least one of the cited protections does not provide protections assumed in the 2040 General Plan and the EIR, but the commenter does not specify which “protections” it is referring to. Urgency Ordinance 4558 addresses odor impacts on non-agricultural land uses; therefore, the County believes the commenter is suggesting that existing policies inadequately protect agricultural lands from conflicts with non-agricultural uses, thereby necessitating that restrictive measures such as Urgency Ordinance 4558 to be adopted.

As explained in response to comment A7-2, the 2040 General Plan does not modify the types of crops that can be grown in unincorporated Ventura County, nor does it contain policies or implementation programs that would encourage a shift to growing particular crops. As a result, Impact 4.2-2 addresses more generally the potential for implementation of the 2040 General Plan to result in classified Farmland near any nonagricultural land use or project, resulting in a conflict with nonagricultural land uses. Even though Urgency Ordinance 4558 prohibits industrial hemp cultivation on certain unincorporated lands, it does not prohibit other crop cultivation. The designation of classified Farmland is largely based on recent agricultural use, soil characteristics, and slopes. It is generally not based on cultivation of one specific crop, though the definition of Unique Farmland includes production of the state’s leading agricultural crops, and the definition of Farmland of Local Importance includes soils growing dryland crops (beans, grain, dryland walnuts, or dryland apricots) (DOC 2016). Therefore, Urgency Ordinance 4558 should not affect classification of a parcel as Farmland because other crops could still be cultivated and because the characteristics of classified Farmland could be maintained. As a result, the adoption of Urgency Ordinance 4558 does not indicate that protective policies described in the draft EIR are inadequate to protect classified Farmland from conflicts with adjacent use that may arise from the 2040 General Plan. As a result, the draft EIR’s conclusion that these impacts are less than significant is adequately supported by the existing discussion for Impact 4.2-2.

- A13-4 The comment references an attachment that supports and supplements the statements to the main body of the letter. The County has reviewed the attachment and determined that it raises significant environmental issues related to agriculture for which a response is required. The County's responses are provided below in response to comments A13-6 through A13-12.
- A13-5 The information summarizing agriculture's importance to Ventura County is noted. This comment is conclusory in nature and does not raise a significant environmental issue for which a response is required.
- A13-6 The comment states that the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) has provided its comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR "that CoLAB believes will negatively impact the viability of local agriculture." This comment references comments A13-7 through A13-12. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- A13-7 Refer to Master Response MR-5 which addresses this comment's assertions about the infeasibility of Mitigation Measure AG-2.

The comment also asserts that Mitigation Measure AG-2 does not address the "actual issues" that will affect farmland under the 2040 General Plan, including the economic sustainability of the farming industry and the impact that "regulatory demands" and "competition for water" have on farmland. However, the draft EIR correctly omits analysis of existing issues affecting farmland in the county. CEQA is concerned with direct and indirect physical changes in the environment that would result from implementation of the 2040 General Plan (CEQA Guidelines, § 15358(b)). CEQA Guidelines Section 15126.2(a) explains that "[a]n EIR shall identify and focus on the significant effects of the proposed project on the environment." Therefore, only the impacts of agricultural changes caused by adoption of the General Plan need to be addressed in the EIR. The draft EIR appropriately focuses on the direct and indirect impacts that implementation of the 2040 General Plan would have on agricultural resources.

The comment also asserts that the draft EIR does not address "increased compatibility conflicts from development," but in fact the draft EIR does analyze the potential for development under the 2040 General Plan to result in conflicts with classified Farmland in Impact 4.2-2 (starting at page 4.2-17) and conflicts with Land Conservation Act (LCA) Contracts and agricultural preserves in Impact 4.2-3 (starting at page 4.2-18).

- A13-8 The commenter asserts that the County has and will continue to create new restrictions that impact agricultural operations because of conflicts related to nearby residential development and also cites a "recent interim urgency ordinance restricting hemp cultivation" as an example.

The commenter refers to discussions from Impact 4.2-1 (draft EIR page 4.2-13) and Impact 4.2-2 (draft EIR page 4.2-17), which are addressed individually in this response.

The draft EIR explains that the County maintains a number of policies and programs to protect agricultural land uses and prevent conflict between agricultural and non-agricultural land uses. The 2040 General Plan also includes policies and programs to protect agricultural land uses from encroachment of adjacent non-agricultural land uses. Refer to draft EIR Impacts 4.2-2 and 4.2-3 for a discussion of nuisance issues that can arise from conflicts between agricultural and non-agricultural land uses; discussions of nuisance complaints can be found on pages 4.2-17 and 4.2-19 of the draft EIR. Policy AG-2.3 of the 2040 General Plan, listed on page 4.2-10 of the draft EIR, refers to the County's Right-to-Farm Ordinance, which shall be maintained and updated as needed to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance (e.g., dust, noise, odors) that may occur as the result of living in or near agricultural areas. The County's Agricultural/Urban Buffer Policy, discussed on pages 4.2-18 and 4.2-20 of the draft EIR, protects the economic viability and long-term sustainability of agriculture in the unincorporated area. This policy conditions urban developments or non-agricultural uses to provide and maintain a 300-foot setback and chain-link fence on the non-agricultural property use, or a 150-foot buffer/setback if a vegetative screen is used. This policy would substantially lessen the potential conflict with LCA contracts or agricultural preserves by requiring buffers or screening between specified agricultural and non-agricultural land uses to prevent or minimize conflicts that may arise at the interface of agricultural lands and urban structures or ongoing non-farming activities.

Additionally, this comment presumably refers to Ventura County Urgency Ordinance 4558, which prohibits the outdoor planting of industrial hemp in certain parts of unincorporated Ventura County. Regarding the commenter's assertion that Urgency Ordinance 4558 has had a significant impact on agricultural operations, it should first be noted that Urgency Ordinance 4558 is not a part of the 2040 General Plan. This response therefore focuses on the commenter's assertion that the County's adoption of Urgency Ordinance 4558 is indicative that the County will create new restrictions and ordinances that have a significant impact on agriculture as a result of the 2040 General Plan. Impact 4.2-1 addresses the potential loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, and the draft EIR concludes this impact would be significant and unavoidable, not less than significant as the commenter states. The discussion of indirect impacts within Impact 4.2-1 begins on draft EIR page 4.2-11. After an exhaustive discussion of agricultural preservation efforts, including the SOAR initiative, the Ventura County Guidelines for Orderly Development, the Ventura County zoning ordinances, and policies and programs in the 2040 General Plan, the significance conclusion for this impact is found on draft EIR page 4.2-15. It speaks to direct and indirect loss of Important Farmland, and states that:

[T]he planned land use designations of the 2040 General Plan would allow for future development that could result in the direct or indirect loss of Important Farmland (including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance) that would exceed the County's established acreage limitation criteria for loss

of farmland and result in the permanent loss of this valuable resource. Any future development that causes the loss of Important Farmland that exceeds the County’s acreage limitation thresholds would be considered significant and the full extent of development and the potential for the direct or indirect loss of Important Farmland cannot be quantitatively determined at this time. Therefore, potential loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance as a result of future development under the 2040 General Plan would be **potentially significant**.

The draft EIR then concludes that Impact 4.2-1 would be significant and unavoidable, even after implementation of Mitigation Measure AG-1 and Mitigation Measure AG-2.

Even though Urgency Ordinance 4558 prohibits industrial hemp cultivation on certain unincorporated lands, it does not prohibit other crop cultivation. The designation of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance—the focus of Impact 4.2-1—is largely based on recent agricultural use, soil characteristics, and slopes. It is generally not based on cultivation of one specific crop, though the definition of Unique Farmland includes production of the state’s leading agricultural crops, and the definition of Farmland of Local Importance includes soils growing dryland crops (beans, grain, dryland walnuts, or dryland apricots). Therefore, Urgency Ordinance 4558 should not affect classification of a parcel as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance because many other crops could still be cultivated, and characteristics of these types of Farmland could still be maintained. As a result, the adoption of Urgency Ordinance 4558 does not indicate that the County will take actions as a result of the General Plan that have a significant impact related to loss of Farmland.

Refer to response to comment A13-3 regarding the commenter’s assertions regarding Impact 4.2-2 and Urgency Ordinance 4558.

The commenter does not specify any other County restrictions the commenter believes will result in a significant impact related to conflicts between agricultural and nonagricultural land uses or to conversion of Farmland to non-agricultural use; therefore, no further response needs to be provided.

A13-9

The comment correctly describes the County’s obligation under CEQA to analyze and disclose the reasonably foreseeable effects of implementing the 2040 General Plan. However, it mischaracterizes the land use designations of the 2040 General Plan, which do not increase allowable housing density near agricultural land. The draft EIR evaluates the potential for increased residential development during the planning horizon of the 2040 General Plan, and does not dismiss land use compatibility from analysis. Refer to Impact 4.2-2 (Result in Classified Farmland Near Any Nonagricultural Land Use or Project) beginning on page 4.2-17 of the draft EIR for analysis of 2040 General Plan conflicts with classified farmland.

A13-10 The draft EIR correctly omits a discussion of direct and indirect impacts of Policy AG-5.2 and Policy AG-5.3. First, CEQA does not require an evaluation of economic impacts of a project unless they result in a physical change in the environment (State CEQA Guidelines, § 15131(a)). Therefore, the potential for Policy AG-5.2 and Policy AG-5.3 to increase costs of farming operations is not, by itself, an impact under CEQA. Indirect effects such as physical impacts resulting from an economic effect are defined as those that “are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable” (State CEQA Guidelines, § 15358). Therefore, any physical impacts emanating from economic impacts are indirect impacts appropriately considered under CEQA. However, a lead agency need not speculate about environmental impacts (State CEQA Guidelines, §15145).

Policy AG-5.2 and Policy AG-5.3 would be implemented via Agriculture Implementation Program I, Fossil Fuel-powered Equipment Replacement. This implementation program requires that “[t]he County coordinate with the APCD and electric utilities to develop a program to establish a countywide fossil-fuel powered equipment conversion target, track progress on conversions to renewable energy sourced electric powered systems and provide technical assistance to users considering replacement of pumps.” The requirements of this implementation program are undefined such that resulting reasonably foreseeable impacts cannot be determined at this time. The implementation program only requires coordination to establish a target, track progress, and provide technical assistance. The 2040 General Plan contains no requirement for mandatory provisions to be included in the program. Additionally, the County does not have jurisdiction over many types of agricultural equipment, and Ventura County Air Pollution Control District’s jurisdiction is limited (e.g., it has no jurisdiction over mobile sources). Therefore, it is not possible to predict a mix of actions—either mandatory and voluntary—and the economic effects of such a program. As a result, any economic impacts cannot be characterized. And, any physical impacts resulting from economic impacts cannot be defined. These impacts, including any conversion of Farmland, are not reasonably foreseeable. Any evaluation of these impacts would be considered speculative under CEQA because of the number of ways such a program could take shape after consultation with Ventura County Air Pollution Control District and utilities, and because it is unknown whether any actions would even be mandatory. Therefore, the draft EIR correctly excludes consideration of Policy AG-5.2 and Policy AG-5.3 from the agricultural impact discussion.

A13-11 The draft EIR discusses the potential loss of topsoil under Impact 4.2-1, beginning on draft EIR page 4.2-11. After discussing mechanisms for loss of topsoil through water and wind erosion, such as increased impervious surfaces and a reduction in vegetative cover, the draft EIR notes that “[i]ndirect soil losses that would exceed the County’s established acreage limitation criteria would be considered a significant impact for this valuable resource.” Specific to topsoil, Policy AG-1.2 would reduce the potential for impacts to topsoil as described on draft EIR page 4.12-13:

Policy AG-1.2 ensures that discretionary development located on land designated as Agricultural on the General Plan Land Use Diagram and identified as Prime Farmland or Farmland of Statewide Importance on the State's Important Farmland Inventory is planned and designed to remove as little land as possible from potential agricultural production and to minimize impacts on topsoil. Implementation of this policy reduces the total amount of Important farmland and topsoil that is directly and indirectly lost as a result of development.

As noted on page 4.2-14, the Piru Area Plan also includes Policy 1.8.2.1, which requires that “[d]iscretionary permits located on land designated as "Prime" or "Statewide Significance" by the State's Important Farmlands Inventory shall be planned and designed to remove as little land from agricultural production as possible and minimize impacts on topsoil.”

The draft EIR nonetheless concludes that “[a]ny future development that causes the loss of Important Farmland that exceeds the County’s acreage limitation thresholds would be considered significant and the full extent of development and the potential for the direct or indirect loss of Important Farmland cannot be quantitatively determined at this time.” As a result, the impact would be potentially significant. Even with application of Mitigation Measure AG-1 and Mitigation Measure AG-2, the draft EIR concludes impacts would be significant and unavoidable. No additional feasible mitigation specific to agricultural topsoil loss can be identified beyond the noted policies and mitigation measures because they reduce impacts to the extent feasible at this time, where precise details of future discretionary projects are not known. Therefore, the draft EIR’s discussion of indirect topsoil impacts is adequate under CEQA.

The draft EIR does not conclude that a reduction in available water resources for agricultural irrigation is a significant impact. As noted by the commenter, this is provided as an example of an indirect impact in the draft EIR on page 4.2-3. A reduction in available water resources that causes conversion of Farmland is not a potential impact of the project and is, therefore, appropriately excluded from the draft EIR impact discussion. First, it is important to note that the 2040 General Plan does not mandate a certain amount of development; rather, it accommodates projected development. In terms of water demand, as explained in draft EIR Impact 4.17-4, Mitigation Measure UTL-1 would require that “water-demand projects”, as defined by applicable State law, that require service from a public water system prepare a water supply assessment before project approval. Mitigation Measure UTL-1 demonstrates that new development accommodated by the General Plan would not take water supplies away from existing users such as existing agricultural users. As a result, it is not expected that development facilitated by the 2040 General Plan would result in competition for water resources that would cause fallowing of Farmland, conversion or loss of agricultural resources, or other impacts to agricultural resources. The draft EIR, therefore, properly excludes indirect impacts to agriculture from a reduction in available water resources.

A13-12

CEQA requires that an EIR “describe feasible measures which could minimize significant adverse impacts” (State CEQA Guidelines, § 15126.4(a)(1)).

The comment lists three measures that appear to be offered as mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. The commenter’s Measure 1 would “(s)trenghen the Right-to-Farm ordinance” in unspecified ways “to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices.” The commenter’s Measure 3 would “(p)rotect agricultural land from urban-ag interface encroachment and compatibility conflicts” by establishing specified setbacks between land zoned for agriculture and non-agriculture uses. However, the commenter’s Measures 1 and 3 would not avoid or substantially lessen the conversion of agricultural land to non-agricultural uses due to 2040 General Plan implementation, but would appear to be intended to reduce conflicts between agriculture and adjacent non-agricultural uses. As described in the draft EIR for Impact 4.2-2, 2040 General Plan, impacts related to such conflicts would be less than significant. As a result, no mitigation is required.

The commenter’s Measure 2 would require that the County expand its LCA (i.e., the Williamson Act) program to authorize properties zoned as Open Space (OS) that are used for farming and grazing to be encumbered by LCA contracts. Under the County’s existing LCA program and State law, property owners are provided a tax reduction in exchange for committing to conserve agricultural or open space lands for an initial contract period of 10 or 20 years. At present, property owners can request a zone change of a parcel from Open Space (OS) to Agricultural Exclusive (AE) in order to make the parcel eligible for an LCA contract based on the property’s use for agricultural production or grazing. Moreover, parcels that are zoned OS are currently eligible for an LCA contract based on the conservation of non-agricultural open space on the parcel.

The commenter asserts that including OS-zoned parcels that are used for agriculture or grazing in the LCA program, without a corresponding rezone from OS to AE, would prevent the conversion of agricultural land to non-agricultural uses. Given the limited term of LCA contracts they would not provide permanent protection of agricultural resources, especially on parcels that are zoned OS and thus could be developed with a variety of non-agricultural uses upon expiration of an LCA contract. In addition, the suggested measure could impede the LCA program’s long-term effectiveness in helping to preserve agricultural resources by deleting its current requirement, and thus ending its current incentive, to rezone parcels from OS to the more agriculturally restrictive AE in order to participate in the program based on agricultural or grazing land use. Furthermore, the measure would not ensure that property owners would voluntarily enter into new LCA contracts and thus there would be no assurance that the measure would effectively avoid conversion of farmland, even in the short term. Therefore, this proposed mitigation measure would not lessen the potentially significant impact on significant agriculture resources identified in the draft EIR for Impact 4.2-1, which addresses the conversion of Important Farmland to nonagricultural uses.



Ventura County
Air Pollution
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Dr. Laki Tisopulos,
Air Pollution Control

Letter
A14

**VENTURA COUNTY
AIR POLLUTION CONTROL DISTRICT**
Memorandum

TO: Susan Curtis, County Planning

DATE: February 27, 2020

FROM: *Laki Tisopulos*
Dr. Laki Tisopulos, APCO

SUBJECT: Public Comment for Draft Environmental Impact Report (DEIR) for the County of Ventura General Plan Update 2040 (GPU)

Thank you for the opportunity to provide comments on the GPU's DEIR. The GPU is proposed to set forth the County's vision of its future and express the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including land use, health and safety, and resource conservation out to the year 2040. The project is not expected to identify any increase in overall development relative to the existing General Plan. However, the project will address topics and issues pursuant to state requirements adopted since the existing General Plan was approved in 2005. The Project Location includes all unincorporated areas within Ventura County. The Lead Agency for the project is the County of Ventura.

A14-1

District staff provides the following comments and suggestions to further clarify and improve the document relative to the air quality and greenhouse gas emissions reduction benefits:

Section 4.3- Air Quality

Item 1- Page 4.3-16. The significance after mitigation discussion states that "implementation of Mitigation Measures AQ-1a, AQ-2a, and AQ-2b would reduce impacts to air quality to the extent feasible because construction-related emissions of criteria air pollutants and precursors would be minimized through the use of the highest rate diesel engines available for heavy duty". This mitigation reduction is also quantified and included as part of mitigation construction emissions in Table 4.3-3 and the CalEEMod report found in Appendix C- AQ Modeling displays Tier 4 equipment as the mitigation selected. However, the mitigation measures listed do not explicitly require cleaner diesel EPA off-road construction equipment (Tier 3 and Tier 4). We recommend including specific language such as "minimum use of Tier 3 or Tier 4 off-road construction diesel equipment. The use of cleaner diesel engines will dramatically reduce NOx and Diesel Particulate Matter, a toxic air contaminant, emissions during construction and may reduce short-term health impacts to sensitive receptors, particularly for prolonged extended construction periods of individual development projects.

A14-2

Item 2- Page 4.3-19. The heading of Impact 4.3-4 should read "...would not result in..." or "...that does not exceed..." since the CO discussion concluded a less than significant localized

A14-3

impact in relation to CO emissions. Furthermore, the District's Air Quality Assessment Guidelines have not been updated to reflect more recent information regarding CO attainment status and monitoring in Ventura County. For informational purposes, the following language reflects what is currently being recommended for determining local air quality impacts in relation to CO:

A14-3
cont.

"Some localized areas, such as traffic-congested intersections, can have elevated levels of CO concentrations (CO hotspots). CO hotspots are defined as locations where ambient CO concentrations exceed the State Ambient Air Quality Standards (20 ppm for 1-hr standard, 9 ppm for 8-hr standard). The Federal Ambient Air Quality Standard for CO is 35 ppm for 1-hr standard and 9 ppm for the 8-hr standard. In Ventura County, ambient air monitoring for CO stopped in 2004, with the approval of the U.S. Environmental Protection Agency- Region 9, because CO background concentrations in El Rio, Simi Valley, and Ojai were much lower than the State Ambient Air Quality Standard (highest recorded CO background concentration in Ventura County was in Simi Valley at 6.2 ppm for 1-hr, 1.6 ppm for 8-hr (AQAG, Table 6-2). Therefore, no CO hotspots are expected to occur in the Growth and Non-Growth Areas where and additional CO modeling analysis is not warranted. In addition, with over 80% of the CO in urban areas emitted by motor vehicles, and with stricter, cleaner emission standards to the mobile fleet since 2003, CO ambient concentrations should remain at or lower than the most recent CO monitoring data available for Ventura County."

A14-4

Item 3- Page 4.3-21. Policy LU-17.2 referenced on the last paragraph could not be found in DEIR Section 4.11 "Land Use and Planning" list of Land Use Proposed Policies.

A14-5

Item 4- Page 4.3-23. When reviewing discretionary projects from other jurisdictions, it has been the practice of the District to recommend certain mitigation measures if local toxic exposure is considered significant (HRA cancer risk exceeds OEHHA thresholds). Please consider incorporating the following measures that may help reduce toxic exposure from heavily travelled transportation corridors into Policy HAZ-10.X or as a separate item under Mitigation Measure AQ-3:

- install location of air intakes furthest away from toxic source (such as a heavily traveled transportation corridor)
- limit window opening height or permanently seal windows so that they don't open on side of sensitive-receptor buildings (hospitals, retirement homes, schools, libraries, residential)
- install a vegetative barrier, considering height and cover thickness, to create a natural buffer between sensitive receptors and toxic source (freeway or heavily traveled transportation corridor)

A14-6

Section 4.8- Greenhouse Gas Emissions

Item 5- Page 4.8-1. In addition to the CARB GHG Regulations for Crude Oil and Natural Gas, please include the CARB GHG Methane Municipal Waste Landfill Regulation with background information. Much like the CARB GHG Crude Oil and Natural Gas Regulation, the District

A14-7

came into a Memorandum of Understanding with CARB in 2015 to be able to implement and enforce the regulation for landfills inside the District's jurisdiction.

| A14-7
| cont.

Item 6- Page 4.8-5. The chemical abbreviation used for carbon dioxide should be CO₂, not CO (carbon monoxide). This is found throughout the text in the first paragraph.

| A14-8

We look forward to working with the County of Ventura to make sure the 2040 General Plan Update is consistent with recently adopted air quality regulations and the state's plans to reduce greenhouse gas emissions.

| A14-9

If you have any questions regarding the contents of this memo, you may contact Mr. Ali Ghasemi, Planning, Rules, and Incentives Manager at aghasemi@vcapcd.org or Mrs. Nicole Collazo, Air Quality Specialist, at nicole@vcapcd.org.

| A14-10

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| Letter A14 | Ventura County Air Pollution Control District Dr. Laki Tisopulos, Air Pollution Control Officer February 27, 2020 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------|

- A14-1 The information summarizing the proposed 2040 General Plan is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- A14-2 This comment recommends the specification of cleaner diesel engine standards for construction for future discretionary development projects. The County agrees with this comment and in response to this comment Mitigation Measure AQ-1b (draft EIR page 4.3-15) is revised as shown below. This implementation program has been revised for consistency with the Ventura County Air Pollution Control District's recommendation that measures to reduce construction-related air emissions be incorporated into every project requiring discretionary County approval. It has also been revised to clarify that the use of Tier 3 diesel engines is the minimum requirement, but that Tier 4 engines shall be used where commercially available.

Mitigation Measure AQ-1b: Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices

Applicants for future discretionary development projects that will generate construction-related air emissions that exceed applicable thresholds, will shall be required to include, but are not limited to, the following types of emission reduction mitigation measures and potentially others, as recommended by VCAPCD (in its Air Quality Assessment Guidelines Guidance or otherwise), to the extent feasible and applicable to the project as determined by the County. The types of measures shall include but are not limited to: maintaining equipment per manufacturer specifications; lengthening construction duration to minimize number of vehicle and equipment operating at the same time during the summer months; use of Tier 3 at a minimum, or Tier 4 if commercially available diesel engines in all off-road construction diesel equipment, at a minimum; and, if feasible¹ using electric-powered or other alternative fueled equipment in place of diesel powered equipment. (whenever feasible).

1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines section 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

- A14-3 The comment recommends rephrasing the impact heading of Impact 4.3-4 because the impact analysis for carbon monoxide concludes a less-than-significant impact. All impact headings in Section 4.3, "Air Quality," are phrased in the same manner: an impact would occur if the impact heading statement is true. This is how the thresholds of significance for air quality are presented on page 4.3-6 of the draft EIR. Additionally, Impacts 4.3-1 and 4.3-6 have similar headings but result in less-than-significant impacts. No revision to the draft EIR is required.
- A14-4 This comment was included for informational purposes and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- A14-5 This comment points out that Policy LU-17.2, referenced in Section 4.3, "Air Quality," is not included in Section 4.11, "Land Use and Planning," of the draft EIR. In each resource section, the "Environmental Impacts and Mitigation Measures" subsection includes a list of policies and implementation programs from the 2040 General Plan that are related to the resource and the applicable thresholds of significance. In Section 4.11, "Land Use and Planning," Policy LU-17.2 was not included because it is not related to the impact analysis performed under the thresholds of significance in that section. Policy LU-17.2 can be found in the 2040 General Plan. No revision to the draft EIR is required.
- A14-6 This comment recommends additional mitigation measures to reduce local toxic exposure from heavily traveled transportation corridors. The County agrees with the comment and in response Mitigation Measure AQ-3 (page 4.3-22) is revised as follows:

Mitigation Measure AQ-3: New Policy HAZ-10.X: ~~Setback Requirements~~ Health Risk Assessments for Sensitive Land Uses Near Heavily Traveled Transportation Corridors
The County shall include the following new policy in the 2040 General Plan.

Policy HAZ-10.X: ~~Setback Requirements~~ Health Risk Assessments for Sensitive Land Uses Near Heavily Traveled Transportation Corridors

The County shall require discretionary development for land uses which that include sensitive receptors ~~which are considered to be populations or uses that are more susceptible to the effects of air pollution than the general population, such as long-term health care facilities, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds~~ are be located at least ~~500~~ 1,000 feet from any ~~freeway or urban road with traffic volumes that exceed 400,000 vehicles per day, or rural roads that exceed 50,000 vehicles per day.~~ New sensitive receptor use structures can be located within ~~500~~ 1,000 feet from a new or existing ~~freeway or urban road with traffic volumes that exceed 400,000 vehicles per day, or rural road with traffic volumes that exceed 50,000 vehicles per day~~ only if a project applicant first prepares a qualified, site-specific health risk assessment (HRA). The HRA shall be conducted in

accordance with guidance from VCAPCD and approved by VCAPCD. If the HRA determines that a nearby sensitive receptor would be exposed to an incremental increase in cancer risk greater than 10 in 1 million, then design measures shall be incorporated to reduce the level of risk exposure to less than 10 in 1 million. No further action shall be required if the HRA demonstrates that the level of cancer risk would be less than 10 in 1 million. Project design features that may be considered in an HRA may include, but are not limited to: installing air intakes furthest away from the heavily traveled transportation corridor; installing air filtration (as part of mechanical ventilation systems or stand-alone air cleaner); using air filtration devices rated MERV-13 or higher; requiring ongoing maintenance plans for building HVAC air filtration systems; limiting window openings and window heights on building sides facing the heavily traveled transportation corridor; or permanently sealing windows so they don't open on the side of the building facing the heavily traveled transportation corridor; and installing vegetative barriers, considering height and cover thickness, to create a natural buffer between sensitive receptors and the emissions source. For purposes of this policy, "sensitive receptors" means populations or uses that are more susceptible to the effects of air pollution than the general population such as long-term health care facilities, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds.

Refer to response to comment O6-12 for additional discussion of revisions to Mitigation Measure AQ-3.

A14-7 The comment recommends including the California Air Resources Board's Methane Municipal Waste Landfill Regulation into the background settings in Section 4.8.1, "Background Report Setting Updates," of Section 4.8, "Greenhouse Gas Emissions." The "Regulatory Settings" subsection has been updated to include the following paragraph.

The California Air Resources Board (CARB) adopted regulations to reduce Methane Emissions from Municipal Solid Waste Landfills (June 2010) which require the installation and proper operation of gas collection and control systems at active, inactive, and closed municipal solid waste landfills having 450,000 tons of waste-in-place or greater that received waste after January 1, 1977 unless certain exemption conditions have been met. The regulations contain performance standards for the gas collection and control system and specify monitoring requirements to ensure that the system is being maintained and operated in a manner to minimize methane emissions. The regulations include a leak standard for gas collection and control system components, a monitoring requirement for wellheads, methane destruction efficiency requirements for most control devices, surface methane emission standards, and reporting requirements.

A14-8 The comment notes that "CO" was incorrectly used as an abbreviation for carbon dioxide. The County agrees with this observation and this error will be corrected. The section containing the error on page 4.8-5 of the draft EIR will be rewritten as shown below.

GWP values apply a weight to gases that have been determined by scientific studies to have increased GHG effects relative to the most common GHG, carbon dioxide (CO₂). These weighted gasses are combined with CO₂ to form a common unit of measurement called CO₂e.

- A14-9 The VCAPCD's desire to work with the County regarding consistent air quality regulations and state plans is noted. This comment is conclusory in nature and does not raise a significant environmental issue for which a response is required.
- A14-10 The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.



WATERSHED PROTECTION

Letter
A15

MEMORANDUM

DATE: February 27, 2020
TO: Susan Curtis, Manager, General Plan Update Section
FROM: James Maxwell, Groundwater Specialist *JM*
SUBJECT: Ventura County Public Works Agency, Water Resources Division (VCWRD) Response, Draft Environmental Impact Report (DEIR), Ventura County 2040 General Plan

VCWRD reviewed the DEIR and supporting documents (Appendix B, Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020) submitted by the County of Ventura. VCWRD does not have any comments regarding the DEIR. Relevant updates and comments have been made to Chapter 10 (Water Resources) of the Background Report.

A15-1

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| <p>Letter A15</p> | <p>Ventura County Public Works James Maxwell, Groundwater Specialist February 27, 2020</p> |
|------------------------------|-----------------------------------------------------------------------------------------------------------|

A15-1 The comment references an attachment to the main body of the letter. The commenting agency has reviewed the Background Report and offers text edits to clarify the language thereof. These suggestions are generally unrelated to the draft EIR impact analysis and conclusions. Where details are provided that could better inform the environmental analysis, this information will be incorporated into the final EIR.

Specifically, the following text is added to Section 4.17.1, “Background Report Setting Updates,” in Section 4.17, “Utilities” under the subheading “Environmental Setting,” on page 4.17-1:

Water Supply and Demand
In 2020, the Casitas Municipal Water District reported 99,836 acre-feet (AF) of available surface water supplies from Lake Casitas. The City of Ventura draws approximately 20 percent of its water resources from the Ventura River. The estimated annual water supply in the Ventura River Watershed is 157,436 AF and the estimated annual demand is 14,508 AF.

The Calleguas Municipal Water District supplies the City of Oxnard with imported water from the Santa Clara River Watershed. In 2018, this water comprised 45 percent of the City’s total supply.

This additional information clarifies and updates the language in the Background Report, but does not affect the adequacy of the analysis or conclusions of the draft EIR. All comment letters submitted to the County on the draft EIR are provided with complete attachments in Attachment 1 to this final EIR.



WATERSHED PROTECTION
 WATERSHED PLANNING AND PERMITS DIVISION
 800 South Victoria Avenue, Ventura, California 93009
 Sergio Vargas, Deputy Director – (805) 650-4077

Letter
A16

MEMORANDUM

DATE: February 27, 2020

TO: Susan Curtis RMA Manager
County of Ventura

FROM: Sergio Vargas, Deputy Director, Watershed Protection District, PWA
S.V.

SUBJECT: PL17-0141 Ventura County 2040 General Plan Update
Draft Environmental Impact Report
INCOMPLETE

Pursuant to your request dated January 13, 2020, this office has reviewed the submitted materials and provides the following comments.

PROJECT LOCATION:

All unincorporated areas within Ventura County

PROJECT DESCRIPTION:

The proposed project is a comprehensive update of the County of Ventura General Plan, also known as the 2040 General Plan. The 2040 General Plan will set forth the County's vision of its future and identify the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including but not limited to land use, climate change, agriculture, transportation, hazards, public facilities, health and safety, environmental justice, and resource conservation out to the year 2040. The County, as the lead agency, has prepared an EIR in accordance with CEQA. The County requests that interested persons review and provide comments on significant environmental issues, mitigation measures, and range of reasonable alternatives addressed in the EIR. The 2040 General Plan is anticipated to be adopted in 2020. With implementation of the 2040 General Plan, development may occur on or near site(s) identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5

A16-1

APPLICATION COMPLETENESS:

INCOMPLETE from our area of concern.

COMMENTS:

PL17-0141 Ventura County 2040 General Plan Update
February 27, 2020
Page 2 of 2

Coastal Wave and Beach Erosion Hazards:

It is noted in the currently available documents that climate change will be incorporated into the General Plan Update. The existing general plan notes goals, policies, and programs related to coastal hazards and erosion. Consistent with the Policies of the California Coastal Commission the General Plan Update should consider expanding this section to address the hazards of sea level rise as it relates to discretionary development. The current policy: *"Discretionary development in areas adjacent to coastal beaches shall be allowed only if the Public Works Agency with technical support from the Ventura County Watershed Protection District, determines from the applicant's submitted Wave Run-up Study that wave action and beach erosion are not hazards to the proposed development, or that the hazard would be mitigated to a less-than-significant level, and that the project will not contribute significantly to beach erosion."* The General Plan Update and associated environmental documentation should address sea level rise as a component of the wave run-up and beach erosion hazard analysis.

A16-2

References to the District's Design Hydrology Manual:

Document references the 2006 version of this manual instead of the latest 2017 version. Please revise.

If you have any questions, please feel free to contact me by email at Sergio.Vargas@ventura.org or by phone at (805) 650-4077.

A16-3

END OF TEXT

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|-----------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Letter A16 | Ventura County Public Works Sergio Vargas, Deputy Director, Watershed Protection District, PWA February 27, 2020 |
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A16-1 The information summarizing the proposed 2040 General Plan is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

A16-2 The recommendation to address sea level rise as a component of the wave run-up and beach erosion hazard analysis in the 2040 General Plan and EIR is noted.

The language quoted in the comment is derived from the County's existing general plan. The 2040 General Plan includes Policies COS-2.1 and COS-2.3, through which the County would strive to minimize the effects of coastal wave hazards, reduce the rate of beach erosion, and collaborate to identify issues and establish specific goals regarding coastal sediment management. Policy COS-2.1 in the 2040 General Plan is a combination of Goals 2.12.2.1 and 2.12.2.2 from the existing general plan, which the policy quoted by the commenter was designed to fulfill. Coastal flooding and sea level rise are addressed in the 2040 General Plan through Policies HAZ-3.1, HAZ-3.2, and HAZ-3.3.

The draft EIR does not include an evaluation of the effects of sea level rise on implementation of the 2040 General Plan. In response to 2019 revisions to the State CEQA Guidelines (Pub. Res. Code, § 15126.2) and the 2015 California Supreme Court case, *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 ("CBI"), impacts from exposure of a project to environmental hazards are not considered significant effects unless a project exacerbates the risks from such hazards (refer to draft EIR page 4.9-3). The draft EIR correctly omitted analysis of coastal wave and beach erosion hazards because there is not substantial evidence that implementing the 2040 General Plan would exacerbate these hazards.

In addition, to most accurately reflect the applicable regulatory environment, the following text edits have been made in Section 4.10, "Hydrology and Water Quality," in the draft EIR.

The first full sentence on page 4.10-21 is revised to read:

Lastly, the County has existing regulations, such as the Ventura County Flood Plain Management Ordinance 4521, the Ventura County Flood Control District Design Manual and the Ventura County Watershed Protection District's 2017 Design Hydrology Manual ~~2006~~, that also address flood control and drainage facilities.

The third sentence in the second paragraph on page 4.10-21 is revised to read:

The County's existing regulations, such as the Ventura County Flood Plain Management Ordinance 4521, the Ventura County Flood Control District Design Manual and the Ventura County Watershed Protection District's 2017 Design Hydrology Manual-2006, also address flood control and drainage facilities and implement design standards to ensure that no overflow of watercourses would occur that would result in flooding.

A16-3

The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.

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February 27, 2020

Letter
A17

Susan Curtis, General Plan Update Manager
Ventura County Resource Management Agency
Planning Division
800 South Victoria Avenue
L #1740
Ventura, CA 93009-1600
Email to: Susan.Curtis@ventura.org

Subject: **Ventura Water Comments on the Draft Environmental Impact Report for the Ventura County 2040 General Plan**

Dear Ms. Curtis:

Thank you for the opportunity to comment on the Draft EIR for the Ventura County 2040 General Plan dated January 13, 2020. The City of Ventura's water and wastewater department, Ventura Water, has two comments on the Utilities section under Impact 4.17-4.

A17-1

Comment #1

As discussed in the Utilities section under Impact 4.17-4, the City of Ventura understands that the 2040 General Plan could potentially adversely impact available water supplies. The City currently has at least two ordinances in place to mitigate this impact in line with the proposed mitigation measure UTL-1 in the Draft EIR.

The Water Rights Dedication, Water Resource Net Zero Fee, and Water Resource Net Zero Requirements (Ordinance 2016-004) was adopted to ensure that new development does not adversely affect the water supply or water supply reliability of the City's existing customers and/or approved new development. The Ordinance requires subject projects to offset new or increased water demand through several compliance options. The fee proceeds shall be used to acquire additional water rights or develop water resources for new potable supplies for use by the City. The Ordinance is codified in San Buenaventura Municipal Code Chapter 22.180.

A17-2

In addition, the City has a policy on water connections outside of City limits but within the City's Sphere of Influence per San Buenaventura Municipal Code Section 22.110.055, Water Connections Outside City Limits.

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Ventura Water Comments on the Draft EIR for the VC 2040 General Plan
February 27, 2020
Page 2 of 2

Comment #2

Ventura Water suggests striking the following language from Mitigation Measure UTL-1:

Implementation Program WR-X: Demonstrate Adequate Water Supply during Normal, Single-Dry, and Multiple-Dry Years

Water-demand projects (as defined in Section 15155 of the State CEQA Guidelines) that require service from a public water system shall prepare a water supply assessment prior to project approval. If the projected water demand associated with the project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment must address the public water system's total projected water supplies available during normal, single-dry, and multiple-dry water years for a 20-year projection. The assessment shall describe if the new water service will be sufficiently met under this 20-year projection. The water supply assessment shall be prepared to the satisfaction of and approved by the governing body of the affected public water system and the County. ~~If, as a result of its assessment, the public water system concludes that its water supplies are, or will be, insufficient, the public water system shall provide to the County its plans for acquiring additional water supplies.~~ A water-demand project that includes a new water service from a public water system shall not be approved unless adequate water supplies are demonstrated.

A17-3


We think this sentence should be removed for two reasons. First, the water supply assessment should already include a discussion of the public water system's plans to acquire additional water supplies, to the extent that discussion is relevant or necessary for the water-demand project. Second, if the water supply assessment concludes that adequate water supplies are not available for the water-demand project, then the burden should be on the applicant to demonstrate additional water supplies available for the water-demand project – the burden should not be on the public water system.

Conclusion

If you have any questions about the above, please let us know. We also plan on submitting comments on the Public Review Draft 2040 General Plan by the March 30, 2019 deadline.

A17-4

Sincerely,



Susan Rungren
General Manager
Ventura Water

cc: Peter Gilli, City of Ventura - Community Development Director

| | |
|-----------------------|------------------------------------------------------------------------------------------------|
| Letter A17 | City of Ventura Water Department Susan Rungren, General Manager February 27, 2020 |
|-----------------------|------------------------------------------------------------------------------------------------|

- A17-1 The commenting agency's thanks for opportunity to comment on the draft EIR is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- A17-2 The comment expresses general agreement with the draft EIR's conclusion for Impact 4.17-4 (Result in Development That Would Adversely Affect Water Supply Quantities during Normal, Single-Dry, and Multiple-Dry Years) and indicates that the City of Ventura has developed ordinances that apply to projects within the city limits which would have similar effects as implementation of Mitigation Measure UTL-1, as identified in the draft EIR for the unincorporated county. The City also has a policy that applies to water connections within the City's sphere of influence.
- The comment is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- A17-3 The comment suggests edits to Mitigation Measure UTL-1. The commenter suggests deleting the requirement that the public water system provide plans for obtaining additional water where a water supply assessment indicates that there would be insufficient supply for the proposed project, because the public water system's plans to obtain additional water would be a component of the water supply assessment (where relevant). If there is no plan to obtain water, the commenter believes that the burden to prove adequate supply should be on the project applicant. After careful review of the suggestion, the County concurs with this edit. Therefore, Mitigation Measure UTL-1 on page 4.17-18 of Section 4.17, "Utilities," is revised as follows:

Implementation Program WR-X: Demonstrate Adequate Water Supply during Normal, Single-Dry, and Multiple-Dry Years

Water-demand projects (as defined in Section 15155 of the State CEQA Guidelines) that require service from a public water system shall prepare a water supply assessment prior to project approval. If the projected water demand associated with the project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment must address the public water system's total projected water supplies available during normal, single-dry, and multiple-dry water years for a 20-year projection. The assessment shall describe if the new water service will be sufficiently met under this 20-year projection. The water supply assessment shall be prepared to the satisfaction of and approved by the governing body of the affected public water system and the County. ~~If, as a result of its assessment, the public water system concludes that its water supplies are,~~

~~er will be, insufficient, the public water system shall provide to the County its plans for acquiring additional water supplies.~~ A water-demand project that includes a new water service from a public water system shall not be approved unless adequate water supplies are demonstrated.

This additional information clarifies and updates the language in the mitigation measure, but does not substantially change the content, analysis, or conclusions of the draft EIR.

A17-4

This comment is conclusory in nature and does not raise a significant environmental issue for which a response is required. However, the commenting agency's plan to submit comments on the Public Review Draft 2040 General Plan is noted.



WATERSHED PROTECTION
 WATERSHED PLANNING AND PERMITS DIVISION
 800 South Victoria Avenue, Ventura, California 93009
 Sergio Vargas, Deputy Director – (805) 650-4077

Letter
A16

MEMORANDUM

DATE: February 27, 2020
TO: Susan Curtis RMA Manager
 County of Ventura
FROM: Sergio Vargas, Deputy Director, Watershed Protection District, PWA
 S.V.
SUBJECT: PL17-0141 Ventura County 2040 General Plan Update
 Draft Environmental Impact Report
 INCOMPLETE

Pursuant to your request dated January 13, 2020, this office has reviewed the submitted materials and provides the following comments.

PROJECT LOCATION:

All unincorporated areas within Ventura County

PROJECT DESCRIPTION:

The proposed project is a comprehensive update of the County of Ventura General Plan, also known as the 2040 General Plan. The 2040 General Plan will set forth the County's vision of its future and identify the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including but not limited to land use, climate change, agriculture, transportation, hazards, public facilities, health and safety, environmental justice, and resource conservation out to the year 2040. The County, as the lead agency, has prepared an EIR in accordance with CEQA. The County requests that interested persons review and provide comments on significant environmental issues, mitigation measures, and range of reasonable alternatives addressed in the EIR. The 2040 General Plan is anticipated to be adopted in 2020. With implementation of the 2040 General Plan, development may occur on or near site(s) identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5

A16-1

APPLICATION COMPLETENESS:

INCOMPLETE from our area of concern.

COMMENTS:

PL17-0141 Ventura County 2040 General Plan Update
February 27, 2020
Page 2 of 2

Coastal Wave and Beach Erosion Hazards:

It is noted in the currently available documents that climate change will be incorporated into the General Plan Update. The existing general plan notes goals, policies, and programs related to coastal hazards and erosion. Consistent with the Policies of the California Coastal Commission the General Plan Update should consider expanding this section to address the hazards of sea level rise as it relates to discretionary development. The current policy: *"Discretionary development in areas adjacent to coastal beaches shall be allowed only if the Public Works Agency with technical support from the Ventura County Watershed Protection District, determines from the applicant's submitted Wave Run-up Study that wave action and beach erosion are not hazards to the proposed development, or that the hazard would be mitigated to a less-than-significant level, and that the project will not contribute significantly to beach erosion."* The General Plan Update and associated environmental documentation should address sea level rise as a component of the wave run-up and beach erosion hazard analysis.

A16-2

References to the District's Design Hydrology Manual:

Document references the 2006 version of this manual instead of the latest 2017 version. Please revise.

If you have any questions, please feel free to contact me by email at Sergio.Vargas@ventura.org or by phone at (805) 650-4077.

A16-3

END OF TEXT

| | |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Letter A16 | Ventura County Public Works Sergio Vargas, Deputy Director, Watershed Protection District, PWA February 27, 2020 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------|

A16-1 The information summarizing the proposed 2040 General Plan is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

A16-2 The recommendation to address sea level rise as a component of the wave run-up and beach erosion hazard analysis in the 2040 General Plan and EIR is noted.

The language quoted in the comment is derived from the County's existing general plan. The 2040 General Plan includes Policies COS-2.1 and COS-2.3, through which the County would strive to minimize the effects of coastal wave hazards, reduce the rate of beach erosion, and collaborate to identify issues and establish specific goals regarding coastal sediment management. Policy COS-2.1 in the 2040 General Plan is a combination of Goals 2.12.2.1 and 2.12.2.2 from the existing general plan, which the policy quoted by the commenter was designed to fulfill. Coastal flooding and sea level rise are addressed in the 2040 General Plan through Policies HAZ-3.1, HAZ-3.2, and HAZ-3.3.

The draft EIR does not include an evaluation of the effects of sea level rise on implementation of the 2040 General Plan. In response to 2019 revisions to the State CEQA Guidelines (Pub. Res. Code, § 15126.2) and the 2015 California Supreme Court case, *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 ("CBI"), impacts from exposure of a project to environmental hazards are not considered significant effects unless a project exacerbates the risks from such hazards (refer to draft EIR page 4.9-3). The draft EIR correctly omitted analysis of coastal wave and beach erosion hazards because there is not substantial evidence that implementing the 2040 General Plan would exacerbate these hazards.

In addition, to most accurately reflect the applicable regulatory environment, the following text edits have been made in Section 4.10, "Hydrology and Water Quality," in the draft EIR.

The first full sentence on page 4.10-21 is revised to read:

Lastly, the County has existing regulations, such as the Ventura County Flood Plain Management Ordinance 4521, the Ventura County Flood Control District Design Manual and the Ventura County Watershed Protection District's 2017 Design Hydrology Manual ~~2006~~, that also address flood control and drainage facilities.

The third sentence in the second paragraph on page 4.10-21 is revised to read:

The County's existing regulations, such as the Ventura County Flood Plain Management Ordinance 4521, the Ventura County Flood Control District Design Manual and the Ventura County Watershed Protection District's 2017 Design Hydrology Manual-2006, also address flood control and drainage facilities and implement design standards to ensure that no overflow of watercourses would occur that would result in flooding.

A16-3

The comment provides the preferred contact for the agency. The County has noted the information appropriately for future reference.

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www.venturawater.net

February 27, 2020

Letter
A17

Susan Curtis, General Plan Update Manager
Ventura County Resource Management Agency
Planning Division
800 South Victoria Avenue
L #1740
Ventura, CA 93009-1600
Email to: Susan.Curtis@ventura.org

Subject: **Ventura Water Comments on the Draft Environmental Impact Report for the Ventura County 2040 General Plan**

Dear Ms. Curtis:

Thank you for the opportunity to comment on the Draft EIR for the Ventura County 2040 General Plan dated January 13, 2020. The City of Ventura's water and wastewater department, Ventura Water, has two comments on the Utilities section under Impact 4.17-4.

A17-1

Comment #1

As discussed in the Utilities section under Impact 4.17-4, the City of Ventura understands that the 2040 General Plan could potentially adversely impact available water supplies. The City currently has at least two ordinances in place to mitigate this impact in line with the proposed mitigation measure UTL-1 in the Draft EIR.

The Water Rights Dedication, Water Resource Net Zero Fee, and Water Resource Net Zero Requirements (Ordinance 2016-004) was adopted to ensure that new development does not adversely affect the water supply or water supply reliability of the City's existing customers and/or approved new development. The Ordinance requires subject projects to offset new or increased water demand through several compliance options. The fee proceeds shall be used to acquire additional water rights or develop water resources for new potable supplies for use by the City. The Ordinance is codified in San Buenaventura Municipal Code Chapter 22.180.

A17-2

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Ventura Water Comments on the Draft EIR for the VC 2040 General Plan
February 27, 2020
Page 2 of 2

Comment #2

Ventura Water suggests striking the following language from Mitigation Measure UTL-1:

Implementation Program WR-X: Demonstrate Adequate Water Supply during Normal, Single-Dry, and Multiple-Dry Years

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A17-3


We think this sentence should be removed for two reasons. First, the water supply assessment should already include a discussion of the public water system's plans to acquire additional water supplies, to the extent that discussion is relevant or necessary for the water-demand project. Second, if the water supply assessment concludes that adequate water supplies are not available for the water-demand project, then the burden should be on the applicant to demonstrate additional water supplies available for the water-demand project – the burden should not be on the public water system.

Conclusion

If you have any questions about the above, please let us know. We also plan on submitting comments on the Public Review Draft 2040 General Plan by the March 30, 2019 deadline.

A17-4

Sincerely,



Susan Rungren
General Manager
Ventura Water

cc: Peter Gilli, City of Ventura - Community Development Director

| | |
|-----------------------|------------------------------------------------------------------------------------------------|
| Letter A17 | City of Ventura Water Department Susan Rungren, General Manager February 27, 2020 |
|-----------------------|------------------------------------------------------------------------------------------------|

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This additional information clarifies and updates the language in the mitigation measure, but does not substantially change the content, analysis, or conclusions of the draft EIR.

A17-4

This comment is conclusory in nature and does not raise a significant environmental issue for which a response is required. However, the commenting agency's plan to submit comments on the Public Review Draft 2040 General Plan is noted.

2.5 ORGANIZATIONS

Petition

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| Letter O1 |
|--------------|

Count and Mitigate Impacts of Climate Change in Draft EIR and General Plan Comments and Recommendations

To: Ventura County Board of Supervisors
From: Jan Dietrick and 204 Signatories

With worsening climate change impacts, we reiterate and amplify the concerns the people expressed in January of last year about “climate change and GHGs, and the effects of continued oil and gas extraction including secondary effects related to climate change, air quality, water quality, water supply, traffic, noise, odors, aesthetics, and hazards.”

Our county is warming faster than any other in the nation, our ocean is becoming more hostile to marine life, our last drought was the most intense and lasted longest, and our history of costly floods will be dwarfed when future atmospheric rivers pour over our valleys. Our house is on fire. We need a thorough plan and environmental impacts analysis based on the latest science.

Ventura County’s plan matters. Our larger cities are making climate action plans and look for your example of leadership. The environmental impact from what we do to mitigate climate impacts at the global scale is profoundly influential in trying to stop runaway climate change. This is explained in a new report Insights from the California Energy Policy Simulator about the role of the State of California in the world. Ventura County as a local government hit hardest by climate impacts must step up and meet serious goals. “Insights about California’s climate policies are at the forefront of global efforts to battle climate change. The state’s leadership and success so far have helped maintain momentum despite political headwinds. If California faltered, global efforts to reduce GHG emissions would be dealt a major setback. Meanwhile, the severe risks from runaway global warming are becoming more tangible as the state suffers from wildfires supercharged by climate change.”

O1-1

A. Four Overall Comments:

We are grateful for the expertise at the law firm of Shute, Mihaly and Wineberger retained by CFROG regarding CEQA. We have appreciated their past comments. We join them in continuing to request the following:

1 of 8 Count and Mitigate Impacts of Climate Change in Draft EIR and GPU – Comments and Recommendations

1. Count ALL GHGs that result from activity in our county: Count all burning of oil and gas originating in our county and count all fugitive methane from wells in our county and from methane entering our county that was not counted at the jurisdiction of origin. Do the math on the GHG footprint for heavy exports. We want to mitigate our fair share of all climate impacts from activities within Ventura County. We have to know what they are. Worrying about double counting is not acceptable. Just worry that you haven't counted every cause of climate impacts that we are morally and legally responsible to mitigate with a comprehensive inventory and a systematic plan.

O1-2

2. Use the latest science to calculate GWP of methane: The global warming potential of GWP is nearly 40 percent greater than what you are using. The International Panel on Climate Change states that over a 20 year period, methane has a GWP of 84 compared to carbon dioxide (up from their previous estimate of 72). The US EPA estimates it at 87 and recent scientific experts put the estimate at 96. We must know the true environmental impact of methane emissions. A complete and scientifically valid GHG inventory is required for a CEQA-compliant Climate Action Plan.

O1-3

3. Use the emissions reduction goal from Governor Brown's Executive Order B-18-55 "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing greenhouse gas emissions." It is an inadequate compromise, but not as much as the SB 32 goal of 80% below 1990 levels by 2050. City of LA plans to stay within a net zero carbon budget between now and 2045. The proposed GHG reductions in the VC2040 Draft of 41 percent below 2015 levels by 2030, 61 percent by 2040, and 80 percent by 2050 are not ambitious enough for us to do our part to mitigate the climate chaos happening faster than scientists have predicted.

O1-4

4. Policies and programs must meet the goal: It does not take an in-depth analysis to see that this plan will not achieve the 2030 goal of 40% reduction in GHGs below 1990 levels. A new report Insights from the California Energy Policy Simulator shows that the State of California will fall short of that goal by at least 15 and as much as 45 MMT CO₂e. We have and continue to advocate for a goal aligned with Governor Brown's Executive Order to achieve carbon neutrality as soon as possible and no later than 2045.

O1-5

B. Some Comments about Impacts and Mitigation

The environmental impacts that concern us are those resulting from governments not making and carrying out plans to mitigate climate change. Your draft analysis does not include most of them. Table B in the Executive Summary is not even half finished. Some of the more serious impacts are missing from the draft analysis. Here are a few of our concerns:

O1-6

2 of 8 Count and Mitigate Impacts of Climate Change in Draft EIR and GPU – Comments and Recommendations

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| <p>1. Aesthetics, Scenic Resources and Light Pollution and Agriculture and Forest Resources: Mitigation programs are needed to protect our resources from degradation from significant climate impacts. The loss of soil in particular is associated with the downfall of civilizations.</p> | <p>O1-6 cont.</p> |
| <p>2. Air Quality: The emissions impacts from exceeding criteria pollutant thresholds and also greenhouse gases seem significant and can be mitigated.</p> | <p>O1-7</p> |
| <p>3. Biological Resources: The new implementation program is a good start to “update the Initial Study Assessment Guidelines, Biological Resources Assessment report criteria and evaluate discretionary development that could potentially impact sensitive biological resources”. Two kinds of impacts are missing. 1) Climate Change. A major mitigation is the restoration of wetlands which should be at a 2:1 or greater ratio. Stormwater management is another mitigation that reverses the loss of vegetation from drought and floods and supports the restoration of all of the indigenous biology that makes an ecosystem function to maintain the small water cycles. 2) Toxic Pesticide and Herbicide Use and Drift. This must be part of the agenda of a Program for Protection of Sensitive Biological Resources to promulgate the mitigations provided by Integrated Pest Management. Pest management policy must align with the recommendations of the California Department of Pesticide Regulation Roadmap for Integrated Pest Management some of which have climate mitigation co-benefits.</p> | <p>O1-8 O1-9</p> |
| <p>4. Energy: We want a workshop to learn how it is deemed less than significant to allow wasteful, inefficient, or unnecessary consumption of energy resources.</p> | <p>O1-10</p> |
| <p>5. Greenhouse Gas Emissions: The climate change impacts are so dire that the mitigations need to be benchmarked to be achieved before it is too late to reverse runaway climate chaos. At minimum we demand a systematic plan for decarbonization of county facilities and electrification of the transportation system.</p> | <p>O1-11</p> |
| <p>6. Hazards, Hazardous Materials, and Wildfire: The impacts of toxic explosions, leaks, and spills and the drift of regulated materials and the ignorance of the public about toxic impacts must be addressed where feasible through mitigations that regulate the use and transport of hazardous materials. We have recommended feasible mitigations for people being exposed to the risk of wildfires that have not been accepted by decision-makers.</p> | <p>O1-12</p> |
| <p>7. Hydrology and Water Quality: Impacts from climate change and poor land management have have led to grave threats to water supply and water quality. These are highly significant--ground water overdraft, overuse and degradation of water quality, erosion, flooding, and siltation. (Impact 4.10-12) The failure to restore small water cycles to keep stormwater in the uplands and maintain forest health is one of the most</p> | <p>O1-13</p> |

3 of 8 Count and Mitigate Impacts of Climate Change in Draft EIR and GPU – Comments and Recommendations

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| <p>serious impacts being mitigated in many places through a paradigm shift about stormwater management. Mitigation is essential--water is life. It requires an integrated water management plan that involves every sector working on every mitigation of which we are aware.</p> | <p>O1-13 cont.</p> |
| <p>8. Land Use and Planning We want an analysis of incompatible land uses and new development with negative health implications. Closing wells near sensitive sites is a mitigation. Environmental Justice is not examined in the draft EIR.</p> | <p>O1-14</p> |
| <p>9. Mineral and Petroleum Resources: We want an analysis of the impact of the scenario in which wells have been put on hold and the operator cannot close the wells for lack of funds. We have no choice. The wells must be closed properly. Fields must be restored to functioning ecosystems to help mitigate climate change impacts. We need insurance as well as bigger bonds.</p> | <p>O1-15</p> |
| <p>10. Traffic and Transportation: Tailpipe emissions is an extremely significant environmental impact. The mitigation aimed for in the CTM-C: Vehicle Miles Traveled (VMT) Reduction Program needs assurances of effectiveness via a clear description of what "conditions warrant providing additional mitigations and programs"? This is far too vague to be a mitigation for this significant impact. We have no alternative but to reliably cut GHGs in the transportation sector.</p> | <p>O1-16</p> |
| <p>11. Utilities: Failure to develop wholesale and commercial scale renewable energy generation and microgrids is a significant environmental impact because it has forced us to have to get our electricity from fossil fuels via transmission lines that spark wildfires. Community microgrids are a feasible mitigation.</p> | <p>O1-17</p> |
| <p>12. Waste Management: Failure to properly manage waste has a highly significant environmental impact, especially when it produces methane super-emitter landfills that is driving climate change, but also the failure to reuse and recycle consumer goods and the materials and equipment discarded by commercial enterprises. We need a more comprehensive approach for mitigation of these impacts.</p> | <p>O1-18</p> |
| <p>C. The following policy recommendations for the Draft Plan could help the Plan achieve the GHG reduction goals to mitigate climate change impacts and help the EIR be more relevant to the climate crisis.</p> | <p>O1-19</p> |
| <p>Land Use and Community Character: We endorse the comments submitted by Bruce Smith to more firmly assure preservation of agricultural land and open space. We point out the lack of analysis of Environmental Justice policy issues.</p> | <p>O1-20</p> |

4 of 8 Count and Mitigate Impacts of Climate Change in Draft EIR and GPU – Comments and Recommendations

Circulation, Transportation, and Mobility:

- 1. No overriding considerations should allow a project to NOT reduce VMT unless all of the vehicles have zero emissions that will use the proposed project. I O1-21
- 2. CTM 3-9 to widen SR 118 has a significant environmental impact. I O1-22
- 3. Benchmarks to reduce VMT need to be more clear and the plan needs a review with public input every two years until 2028 and then no longer than every five years. I O1-23
- 4. Parking programs should be included in ways that reduce single-occupancy car trips. I O1-24

Public Facilities, Services, and Infrastructure:

- 1. Enroll residents in a program to reduce CO2 emissions in their neighborhoods. Ex: Cool Block or Transition Streets. I
- 2. PFS 2.1 must be revised to say include rather than encourage 'Sustainable Plans and Operations' in order to be considered a mitigation of climate change impacts from greenhouse gas emissions. O1-25
- 3. Policy PFS 7.1 should be revised to delete the need for access to gas. The environmental impact from use of natural gas requires carbonizing buildings beginning with no gas connections to new residences . It is therefore contradictory to ensure access to gas. I
- 4. Local renewable energy generation must be part of the mitigation plan for reducing transmission facility fire hazard risk. This is not the same as "Smart Grid Technology". You need experts who know the cutting edge of this field to help write coherent policy on this topic. I O1-26
- 5. Zero Waste The County shall achieve zero waste (via a suite of policies to reduce, reuse, and recycle) with no organic waste going to landfills by 2023 I
- 6. Zero Waste Policy for Meetings and Events Design and implement a zero waste policy for meetings and events sponsored or permitted by the County to minimize waste and rescue surplus edible food I
- 7. Compostable Take-Out Foodware Require that take-out foodware be made with material compostable in solid waste processing facilities within 60 days O1-27
- 8. Reduce Solid Waste by Phasing Out Single-Use Plastic Evaluate how to best reduce solid waste generation per capita by at least 15% by 2030 including phasing out single-use plastics including but not limited to plastic straws, plastic utensils, plastic take-out containers, and expanded polystyrene I
- 9. Ban Expanded Polystyrene I

Conservation and Open Space:

- 1. Reduce oil and gas production by 40% by 2025 via higher monitoring standards and 2500 ft buffer zones near sensitive sites; reduce production to zero by no later than 2040. I
- 2. Phase-Out of Oil and Gas Production The County shall prohibit new drilling and shall regulate existing wells to assure steady closing of wells beginning near residential and commercial areas. O1-28
- 3. Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes. I

4. Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.
5. Detect and curb methane emissions from “super-emitter” sites as identified by NASA.
6. Tax oil and gas production, and related uncaptured methane to raise the needed revenues to fund urgent climate programs to replace high-emission vehicles with a priority on trucking and freight companies, fishing businesses, general contractors and K-12 schools.
7. Require a fully accountable performance bond for all new wells to cover cost of closure Cite LAT article (maybe put on website and link to it).
8. Establish an insurance fund that oil and gas producers contribute to that will cover accidents and closing wells if the producer goes bankrupt.
9. Ban gas-fueled lawn and garden equipment. (Ex: City of Ojai)
10. Accelerate capture of legacy HFCs Enlist the public and private to find and destroy existing stocks of HFC's (refrigerant gases with extremely high Global Warming Potential).
11. Develop and adopt building codes based on best practices for use of low embodied carbon concrete and set targets for use of low GHG concrete alternatives. Ex: Bay Area Air Quality Management District and King Co, WA.
12. Encourage climate-safe and climate-resilient development through zoning reform and removal of limits on height, density, and minimum parking requirements to enable and promote walkability and a mix of uses for homes and businesses, parks and transit.
13. Create a master local clean energy siting and funding plan for wholesale distributed solar energy plus storage in commercial scale projects producing energy needs by 2030.
14. Provide energy efficiency benchmarking and rebates for low-income housing and renters as well as low-interest loans for small businesses to reduce energy use; assist owners of existing buildings to switch from natural gas to electricity.
15. Prepare sustainable building, siting, landscaping and passive heating and cooling practice guidelines, with a priority on low-income housing, that reduce consumption of non-renewable resources and that include climate and fire-safety in pre-approved plans.
16. Energy Efficiency to Reduce Electricity Use Use Energy Efficiency to Deliver 15% of Projected Needs for electricity in the county by 2023; and 30% by 2030.
17. Efficiency Building Standards for Retrofits Prioritize energy and water efficiency building standards and work to retrofit existing buildings.
18. Decarbonize County Buildings Develop a county building electrification plan eliminating natural gas use in County-owned facilities.
19. Decarbonize All Building Types Develop an electrification plan with goals for GHG emission reductions through renewable energy that evaluates and prioritizes programs for local solar, energy storage and demand response (DR) that disconnects all buildings from gas service by 2050. Include incentives for deep retrofits of inefficient buildings.

O1-28
cont.

O1-29

Agriculture:

1. Integrated Pest Management where toxic pesticides are a last resort. Create a program that promotes the principles (systems approach, building trust, and effective communication) and pursues the recommendations of the Roadmap for Integrated Pest Management from the University of California and CA Department of Pesticide Regulation. Environmental impacts from toxic pesticides are not described in the Background Report. The Roadmap to an Organic California Policy Report by CCOF Foundation offers information for mitigations and climate action. A workshop is needed.
2. Inorganic Nitrogen Based Fertilizers Set benchmarks for reducing use of inorganic N fertilizer and encourage optimized use of organic and inorganic fertilizer for greatest efficiency in closed nutrient cycles, monitor for nutrient runoff from fields and encourage the use of cover crops and green manure crops to reduce or avoid nitrous oxide (N2O) emissions and nutrient runoff.
3. Diversified Cropping Systems Encourage farmers to include 1 – 5% of beneficial insect attracting plants in a planted crop, and other methods, such as crop rotation, perennial mowed cover crop in orchards, and integrating multiple species or varieties to enhance the biological and economic stability by spreading economic risk and buffering against pest invasions and extreme weather events, and increase carbon sequestration.
4. Reward Regenerative Farmers with Digestate and Compost from Food Waste Research feasibility of a program for composting food waste for use by farmers and landscapers who use regenerative practices that sequester certified amounts of CO2.

O1-30

Water Resources:

1. At least 30,000 acre-feet per year must come from storm water capture by 2035
2. All rainfall must be retained onsite in soil and reservoirs.
3. Slow It. Spread It. Sink It! The County shall enforce Best Management Practices (BMP) and Low Impact Development (LID) for new developments.
4. Recycle all wastewater for beneficial reuse by 2035.
5. Reduce potable water use per capita by 22% by 2025 and 25% by 2035: Offer incentives for water conservation features, including drought tolerant landscaping, permeable materials in standard parkway design guidelines, street trees, infiltration, greywater, and water-saving plumbing.
6. Close oil and gas wells and injection wells near aquifers as a top priority.
7. Create a Master Plan to develop the full potential of integrated water management to infiltrate the ground and recharge aquifers; support reforestation and restoration of watershed ecosystems; conserve and protect groundwater resources, and clean up creeks, streams, and estuaries.
8. Support Santa Clara River Loop Trail and Ventura River Trail Development

O1-31

Economic Vitality:

1. Agricultural Diversification should include reference to regenerative practices to create biodiversity with opportunities for community members to visit farms.
2. Small Business Promotion. Support approval of caretaker residential space on business property to reduce VMT and more financial strength for small businesses.
3. Green Economy. Prioritize youth and immigrants for workforce development in

O1-32

industries that promote and enhance environmental sustainability, including GHG reductions, climate adaptation, resiliency and local renewable energy generation, storage and distribution, including solar power, wind power, wave energy, regenerative organic farming and value-added agriculture-related activities, and other appropriate renewable sources.

4. Maritime Economy. Facilitate a sustainable maritime economy using restorative aquaculture techniques that restore ocean health and biodiversity while reviving pre-human fisheries abundance. For example, restore sand-bottom kelp forests and increase kelp forests with flexible floating fishing reefs where the seafloor is otherwise too deep for kelp.

5. Promote Fire-Resistant Infill and Revitalization. Encourage infill development that serves as firebreak rather than as additional fuel for wildfires.

6. Create a Collaborative Structure for Innovation for a Resilient Future. The structure should be able to make decisions and create a way forward for zoning, building and materials and environmental health to allow options for a resilient future, include government officials, innovators and public as described in submissions from Sustainable Living Research Initiative.

7. Parking Infrastructure. Develop parking policies to reduce single occupancy trips associated with employees and business activity to reduce Vehicle Miles Traveled.

8. Master Plan for Distributed Energy Resources and Community Microgrids. Prepare a map of siting options for renewable energy generation and storage facilities and coordinate the identification of financing options for renewable energy resource development, including solar, wind, wave, storage and community microgrids both in front of and behind the meter.

In summary, with the accelerating tipping points, we cannot go half-way in our vision. We need extraordinary courage to set goals we can hang our hopes and efforts on. We want completeness and clarity so we can see how the emissions reduction plan adds up. We want respect for climate science to tell us the truth. We want more ambition. A 2016 decision of the state legislature in SB32 is just not good enough as a goal. We want to see a systematic plan that will assure carbon neutrality no later than 2045.

O1-32
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O1-33

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| Letter O1 | 350 Ventura County Climate Hub Jan Dietrick and 204 Signatories February 27, 2020 |
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- O1-1 The comment introduces a petition to the Ventura County Board of Supervisors regarding the 2040 General Plan and draft EIR. 350 Ventura County Climate Hub’s concern about climate change, the indirect effects of continued oil and gas extraction, and interest in the 2040 General Plan are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required. Detailed responses to specific concerns raised in this petition are provided in responses O1-2 through O1-33, below.
- O1-2 The comment requests that the greenhouse gas (GHG) inventory used in the 2040 General Plan and draft EIR account for GHG emissions resulting from the consumption of oil and gas that was extracted within the county and “fugitive methane” from oil and gas wells in the county.
- Stationary source emissions associated with oil and gas wells were included in the inventory. Use of oil and gas produced in Ventura County but consumed outside of the county is not included in the inventory because the County does not have authority to plan for emissions reductions outside of its own jurisdiction. In addition, the inclusion of these types of lifecycle emissions is not required for the California Environmental Quality Act (CEQA) analysis or GHG reduction planning. Petroleum and gas use within the county is also accounted for. The combustion fuels derived from crude oil, such as gasoline and diesel, were included in the County’s GHG inventory as part of the on-road and off-road transportation sectors. Natural gas consumption in buildings were included as part of the building energy section of the inventory. Emissions associated with oil and gas wells were also included in the inventory. Imported methane (assumed to mean imported natural gas) and heavy exports (assumed to mean fuel consumption from the export of goods) were not included in the inventory because the County does not have authority to plan for emissions reductions outside of its own jurisdiction. Regarding double counting, Section 4 of the ICLEI U.S. Community Protocol for GHG Accounting Version 1.1, which was used to produce the County’s GHG inventory, advises to avoid double counting. Lastly, GHG emissions from the sources mentioned above are regulated through various statewide rules, regulations, and programs (e.g., CARB’s GHG emission controls from crude oil and natural gas operations regulation). Refer to Master Response MR-1.A for additional discussion of the methodology used to prepare the GHG inventory.
- O1-3 This comment addresses the global warming potential (GWP) values used for quantifying GHG emissions from methane and makes assertions about GHG inventory requirements for CEQA and climate action plans (CAPs). Refer to Master Response MR-1.A for additional information regarding GHG inventory procedures, including the use of GWP values.

O1-4 This comment recommends setting carbon neutrality targets consistent with Executive Order B-18-55 in addition to GHG reductions under Senate Bill (SB) 32, while suggesting that both are inadequate compromises; it further asserts that the GHG reduction targets and goals of the 2040 General Plan are not ambitious enough to mitigate climate change. The comment also describes plans of the City of Los Angeles related to GHG reduction. The comment addresses the policies and targets of the 2040 General Plan and is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer to Master Response MR-1.B for a discussion of the GHG reduction targets and goals included in the 2040 General Plan and their alignment with State reduction targets and goals.

O1-5 The comment expresses that an in-depth analysis is not needed to see that policies and programs in the 2040 General Plan will not achieve a 2030 goal of 40 percent reduction in GHGs below 1990 levels. However, an in-depth analysis was performed as part of the draft EIR under Impact 4.8-2 (starting at page 4.8-49) and concluded with a significant and unavoidable impact because it could not be determined at a program level of analysis that future emissions within the unincorporated county would meet the State 2030 target for GHG reduction. Refer to Master Response MR-1.C for discussion of the GHG emissions analysis conducted in the draft EIR.

The comment additionally cites a report based on an energy simulation tool, which shows California falling short of statewide goals and states that continued advocacy is needed to support a carbon neutrality goal aligned with Executive Order B-18-55. The findings of this report are acknowledged for the record. This report is not related to the adequacy of the draft EIR and no further response is required.

O1-6 The comment expresses concern with environmental impacts that are a result of governments not making and carrying out plans to mitigate climate change, and that the draft EIR does not include most of these impacts. Concerns cited by commenter are related to aesthetics, scenic resources and light pollution and agriculture and forest resources, which the commenter notes will suffer from degradation including loss of soil as a result of climate change. CEQA requires analysis of the significant environmental effects of GHG emissions associated with a project (in this case, the 2040 General Plan). As explained in Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR (page 4.8-3), the County’s Initial Study Assessment Guidelines (ISAG) establish that the primary concern for CEQA analyses pertaining to GHG emissions should be the cumulative impact of a project’s incremental GHG emissions when viewed in connection to past, current, and probable future GHG emissions.

The 2040 General Plan’s impacts regarding aesthetics, scenic resources, and light pollution are analyzed in draft EIR Section 4.1, “Aesthetics, Scenic Resources, and Light Pollution,” and impacts to agricultural and forest resources are analyzed in Section 4.2, “Agriculture and Forestry Resources.” The draft EIR appropriately analyzes the potentially significant impacts of 2040 General Plan implementation on these resources; it appropriately excludes analysis of the impacts of climate change itself.

For further discussion of the draft EIR analysis of GHG emissions, refer to Master Response MR-1.

O1-7

The comment asserts that criteria air pollutant and GHG emissions seem significant and can be mitigated. The draft EIR does conclude that GHG emissions impacts would be potentially significant under Impact 4.8-1 (starting at page 4.8-37) and Impact 4.8-2 (starting at 4.8-49). Mitigation measures are identified for each potentially significant impact (starting at pages 4.8-45 and 4.8-51, respectively). Also refer to Master Response MR-1 for further discussion regarding the draft EIR analysis of GHG emissions. No further response to this comment regarding GHG emissions is required.

Impacts 4.3-2 and 4.3-3 indeed conclude exceedance of applicable thresholds for criteria air pollutants and, consequently, are considered to be significant. Impact 4.3-2 is determined potentially significant prior to mitigation as the construction emissions modeling shows exceedances of Ventura County Air Pollution Control District (VCAPCD) thresholds for both countywide and Ojai Valley. Mitigation Measures AQ-1a and AQ-1b (page 4.3-15) aim to reduce construction-generated emissions from heavy-duty off-road equipment and Mitigation Measures AQ-2a and AQ-2b (page 4.3-15) aim to reduce fugitive dust. (Refer to the response to comment A14-2 for revisions to Mitigation Measure AQ-1b). However, due to the programmatic nature of the draft EIR, it is unknown at this time future discretionary projects that may require construction mitigation, to what extent the mitigation would be required, and what would be considered applicable and feasible for each individual project. For these reasons, Impact 4.3-2 is considered to be significant and unavoidable.

Impact 4.3-3 was also concluded to be significant and unavoidable, as Table 4.3-4 of the draft EIR demonstrates the exceedance of VCAPCD thresholds for both countywide and Ojai Valley. Operational criteria air pollutants and precursors would be reduced through various General Plan policies and implementation programs including Policies HAZ-10.5, HAZ-10.6, HAZ-10.12, COS-7.7, COS-7.8, CTM-2.11, CTM-2.13, CTM-3.1, CTM-4.1, CTM-4.2, CTM-6.1. As stated on page 4.3-19 of the draft EIR, these policies “focus on reducing VMT through land use planning and the availability of alternative transportation options, which would reduce air pollutants associated with mobile sources through reducing the number of trips taken by individuals and the distance of those trips.” However, Impact 4.3-3 would be significant and unavoidable because it is unknown what individual discretionary projects may require mitigation and to what extent. It cannot be guaranteed that all individual discretionary projects would be able to reduce operational emissions to below VCAPCD significance thresholds.

Importantly, for both construction and operational emissions of criteria air pollutants and precursors, all discretionary projects undergoing CEQA review would be required to comply with Policy HAZ-10.12, which states: “The County shall require that discretionary development that would have a significant adverse air quality impact shall only be approved if it is conditioned with all reasonable mitigation measures to avoid, minimize or compensate (offset) for the air quality impact. The use of innovative methods and technologies to minimize

air pollution impact shall be encouraged in project design.” No revisions to the draft EIR are required.

- O1-8 The comment suggests that the existing effects of climate change on wetlands and ecosystem function should be addressed by Mitigation Measure BIO-1. The EIR does not mitigate these impacts. The 2040 General Plan’s impacts to biological resources are analyzed in draft EIR Section 4.4, “Biological Resources.” The draft EIR appropriately analyzes the potentially significant impacts of 2040 General Plan implementation on biological resources and concludes that impacts would be potentially significant for Impact 4.4-1, 4.4-2, 4.4-3, and 4.4-4. The draft EIR identifies Mitigation Measure BIO-1 to address these potentially significant impacts. The measure appropriately excludes provisions to address the impacts of climate change itself on biological resources. It is not necessary for the 2040 General Plan to mitigate existing or anticipated effects of the environment on the plan area. As indicated in response to comment O1-6, above, the draft EIR includes an analysis the incremental GHG emissions attributable to the 2040 General Plan in Section 4.8, “Greenhouse Gas Emissions.”
- O1-9 This comment states that toxic pesticide and herbicide use and drift must be included when considering protection of sensitive biological resources. The draft EIR includes a discussion of the several ways in which the existing use and regulation of pesticides is addressed by the County (pages 4.2-5 and 4.2-6). The draft EIR correctly omits analysis of the impacts of pesticide and herbicide use on biological resources because such uses are not reasonably foreseeable future activities resulting from 2040 General Plan implementation.
- O1-10 The comment requests a workshop to understand how wasteful, inefficient, or unnecessary consumption of energy resources can be used to determine that a project has a less than significant impact. The comment appears to misinterpret the analysis and conclusions in the draft EIR. The analysis in Section 4.6, “Energy,” determines that implementation of the 2040 General Plan would not result in wasteful, inefficient, or unnecessary consumption of energy because it incorporates numerous energy efficiency and renewable energy policies and programs (refer to Impact 4.6-1 beginning on page 4.6-18 of the draft EIR) and therefore the impact would be less than significant. The commenter’s request for a workshop to learn more about this topic is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

This standard for determining significance of energy impacts in CEQA comes from Section 15126.2 and Appendix F of the 2019 State CEQA Guidelines, published by the California Natural Resources Agency. The latest update to the Guidelines occurred in 2018 and included statewide public outreach. The Final Statement of Reasons describes the “wasteful, inefficient and unnecessary” standard and responses to comments from stakeholder outreach and workshops that occurred during the adoption of these regulations (CNRA 2018).

O1-11 The comment addresses a systematic plan for decarbonization of County facilities and electrification of the transportation system. The GHG inventory, forecast, and 2040 General Plan policies and implementation programs focus on communitywide GHG emissions; GHG emissions from County government facilities and activities are not reported as a separate sector. However, GHG emissions from County facilities and activities are included in the overall communitywide GHG emissions totals (e.g., the building energy sector includes emissions from the electricity consumed by County buildings; the transportation sector includes emissions resulting from the vehicle commutes of County employees). In addition, actions to reduce GHGs and electrify operations at County facilities were included in Policies PFS-2.1, PFS-2.3, PFS-2.4, PFS-2.8, CTM-6.5 and Implementation Program F in the Public Facilities, Services, and in Infrastructure Element. The 2040 General Plan contains several policies that would result in the decarbonization of County facilities such as Policies PFS-2.2 and PFS-2.3. Policy COS-8.5 directs the County to decarbonize electricity supplies at the source. Further, the draft EIR recommends Mitigation Measure GHG-1 to prohibit natural gas infrastructure in new residential and commercial development to achieve additional GHG emissions reductions from the building energy sector.

Similarly, the 2040 General Plan includes several policies that promote the electrification of the transportation sector including Policy CTM-6.5 which would result in the deployment of electric vehicle (EV) charging stations throughout the unincorporated county, Policy CTM-6.6 which provides infrastructure to support the use of neighborhood electric vehicles, Policy PFS-2.8 that directs the County to install EV charging stations at community facilities, and several other policies that support the use of zero-emission modes of transportation (e.g., bicycles). These policies and mitigation would reduce GHG emissions within the unincorporated county; however, the 2040 General Plan policies and recommended mitigation measures would not be sufficient to reduce GHG emissions to the established 2040 reduction target because of inherent uncertainty surrounding the efficacy or nature of future programs and policies. The comment does not specifically address additional policies or measures the County should implement to decarbonize its facilities or electrify the transportation system. Refer to Master Response MR-1.C for additional discussion of the 2040 General Plan, its policies and programs, and mitigation measures.

O1-12 The comment suggests that additional mitigation should be proposed in Section 4.9, "Hazards, Hazardous Materials, and Wildfire," of the draft EIR to address impacts related to the use and transport of potentially hazardous materials.

Impacts 4.9-1 through 4.9-4 address the potential for use and release of hazardous materials. The analyses determine that the impacts would be less than significant. County activities and discretionary development would be required to comply with State law, federal law, and 2040 General Plan policies and implementation programs that would substantially lessen potential impacts related to the use, storage, transport, or disposal of hazardous materials or hazardous waste. No mitigation is required.

Wildfire is addressed in Impact 4.9-6 (Expose People to Risk of Wildfire by Locating Development in a High Fire Hazard Area/Fire Hazard Severity Zone or Substantially Impairing an Adopted Emergency Response Plan or Evacuation Plan or Exacerbate Wildfire Risk). The analysis concludes that implementation of the 2040 General Plan would expose people or structures to a significant and unavoidable risk of loss, injury, or death involving wildland fires, and exacerbate wildfire risk because it would accommodate future development in or adjacent to high and very high Fire Hazard Severity Zones or Hazardous Fire Areas. As indicated on page 4.9-23 of the draft EIR,

[t]he County has adopted and implemented programs to minimize wildfire risks including the MHMP. In addition, the Ventura County [Community Wildfire Protection Plan] CWPP reduces hazardous fuels throughout the County and provide measures to reduce structural ignitability in at-risk communities. The [Ventura County Fire Protection District] Fire Hazard Reduction Program requires mandatory 100-feet of brush clearance around structures located in or adjacent to Hazardous Fire Areas. Many communities also have adopted their own emergency response plans. The 2040 General Plan includes a suite of policies and implementation programs that address a full spectrum of wildfire prevention standards for new development including vegetation management, fire suppression equipment, discouraging development in fire hazard areas, and education programs to prevent wildfires. Finally, existing federal and State building code standards, including the recently adopted 2019 fire code, would require future development to be designed to minimize fire risk.

The County determined that there are no additional, feasible mitigation measures that could address this impact. The comment refers to unspecified feasible mitigation measures for this impact that the commenter has recommended and decision-makers have not accepted, but the comment does not provide details about such recommended mitigation. As such, additional analysis of applicability and feasibility cannot be conducted. No revisions to the draft EIR have been made in response to this comment.

O1-13

The comment asserts that climate change and past land management have led to existing threats to water supply and water quality. The purpose of this EIR under CEQA is not to require the analysis or correction of existing adverse environmental conditions. Instead, the EIR evaluates whether implementation of the 2040 General Plan would have significant environmental effects or exacerbate existing adverse conditions, either at the program or cumulative level.

Impact 4.10-12 evaluates whether implementation of the 2040 General Plan would result in erosion, siltation, or flooding hazards at the program level. This impact would be less than significant with implementation of best management practices (BMPs) required under the County's Stormwater Quality Management Program, proposed policies under the 2040 General Plan, and Area Plans (see page 4.10-19 of the draft EIR for additional discussion). Similarly, analysis found that the 2040 General Plan's incremental impacts would not be cumulatively considerable, and the project would not have a considerable contribution such that a new cumulatively significant impacts would occur (see pages 5-12 to 5-15 of the draft EIR).

The comment suggests that additional mitigation for existing conditions should be considered in the 2040 General Plan but does not propose specific mitigation measures. The comment does not identify deficiencies in the draft EIR, and no revisions to the draft EIR have been made in response to this comment. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adoption of the Final 2040 General Plan.

O1-14

The comment requests analysis of incompatible land uses and new development with negative health implications and asserts that closing oil and gas wells near sensitive sites is a mitigation. Refer to Impact 4.11-1 (Result in Physical Development That Is Incompatible With Land Uses, Architectural Form Or Style, Site Design/Layout, Or Density/Parcel Sizes Within Existing Communities) in Section 4.11, "Land Use and Planning," for a discussion of land use compatibility. Impact 4.9-1 (Create a Significant Hazard to the Public or the Environment Through the Routine Transport, Use, or Disposal of Hazardous Materials or Hazardous Waste) in Section 4.9, "Hazards, Hazardous Materials, and Wildfire," evaluates the potential for health risks due to use of hazardous materials. Both of these impacts are less than significant, and no mitigation is required.

Draft EIR Section 4.3, "Air Quality," includes Impact 4.3-5 (starting at page 4.3-20), which analyzes the potential exposure of sensitive receptors to substantial concentrations of toxic air contaminants (TACs) and associated health impacts under 2040 General Plan implementation, including from the siting of sensitive land uses within specified distance of high volume roadways and the development of new stationary sources of TACs from commercial and industrial land uses. With respect to new stationary sources of TACs, the analysis explains that such sources would not expose sensitive receptors to substantial concentrations of TACs because of the existing rules and requirements of the VCAPCD. This section of the draft EIR analysis (page 4.3-21) also describes 2040 General Plan Policy COS-7.2, which would require that new oil wells subject to discretionary approval be located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school.

The comment also notes that environmental justice is not examined in the draft EIR. Environmental justice is a social concept that melds concepts of racism, classism, and sexism with environmental conditions and advocates for the equitable distribution of environmental hazards. The federal government evaluates environmental justice pursuant to the National Environmental Policy Act to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. CEQA focuses on physical environmental changes, however, and EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The social and economic issues raised in this comment would not result in adverse physical changes to the environment not already addressed in the draft EIR.

O1-15 The comment requests an analysis of a scenario in which wells have been put on hold and the operator cannot close the wells due to lack of funds. Additionally, the comment asserts wells must be properly closed to restore functioning ecosystems to mitigate climate change impacts and insurance is needed along with bigger bonds. However, the draft EIR analyzes the physical environmental changes that would occur as a result of implementation of the 2040 General Plan. In addition, EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. Therefore, any physical impacts resulting from economic impacts are indirect impacts appropriately considered under CEQA. However, a lead agency need not speculate about environmental impacts (State CEQA Guidelines, § 15145).

This comment does not address how implementation of the 2040 General Plan would result in wells being “put on hold,” why funds would not be available for proper closing of wells, or any physical environmental changes that would occur as a result. The economic issues raised in this comment are speculative and would not result in any adverse physical changes to the environment not already addressed in the draft EIR.

Refer to Master Response MR-4, Section MR-4.J, “Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations),” regarding the findings and conclusions of the draft EIR related to phasing out the oil and gas industry.

O1-16 The comment concerns the potential effectiveness of draft EIR Mitigation Measures CTM-3 (Revised Implementation Program CTM-C Vehicle Miles Traveled (VMT) Reduction Program); specifically, the conditions that would warrant providing additional VMT mitigation and programs. Mitigation Measure CTM-3 would commit the County to developing a VMT Reduction Program which would contain a range of project- and program-level strategies for reducing VMT including a Transportation Demand Management (TDM) program and Transportation System Management (TSM) improvements. The VMT Program would be reviewed and updated by the County as-needed during 2040 General Plan implementation to include additional VMT-reducing “mitigations and programs.”

In response to this comment, and to clarify the performance standards of Mitigation Measures CTM-2 and CTM-3, the County has revised Mitigation Measures CTM-2 and CTM-3 to clarify the performance standard that these measures will meet (draft EIR pages 4.16-27 and 4.16-28):

Mitigation Measure CTM-2: Revised Implementation Program CTM-B: Initial Study
Assessment Guidelines

The County shall include the following revised implementation program in the 2040 General Plan.

Implementation Program CTM-B: Initial Study Assessment Guidelines

The County shall update and adopt its Initial Study Assessment Guidelines (ISAG) no later than 2025 to address Vehicle Miles Traveled (VMT) and safety metrics pursuant to CEQA Guidelines Section 15064.3. This program shall consider inclusion of the following components:

- ▶ Establishment of screening criteria to define projects not required to submit detailed VMT analysis, such as infill projects, inclusion of locally serving commercial, transit supportive projects, or transportation enhancements that reduce VMT;
- ▶ Establishment of thresholds of significance for identifying VMT related transportation impacts to meet or exceed State requirements; at minimum the thresholds will be equivalent to the threshold values for different project types identified in Mitigation Measure CTM-1;
- ▶ Standard mitigation measures for significant transportation impacts; and
- ▶ Specify the County's procedures for reviewing projects with significant and unavoidable impacts, under CEQA, related to VMT.

Mitigation Measure CTM-3: Revised Implementation Program CTM-C: Vehicle Miles Traveled (VMT) Reduction Program

The County shall include the following revised implementation program in the 2040 General Plan.

Implementation Program CTM-C: Vehicle Miles Traveled (VMT) Reduction Program

To support climate change related goals and CEQA related VMT policies pursuant to SB 743 (2013), the County shall develop a VMT Reduction Program no later than 2025. This program ~~should~~ will contain a range of project- and program-level mitigation ~~s~~ measures and VMT reduction strategies, that could include:

- ▶ Preparation of a Transportation Demand Management (TDM) program to promote mode shifts from single occupant vehicle use to transit, ridesharing, active transportation, telecommuting, etc.; and,
- ▶ Transportation System Management applications such as park-and-ride lots, intelligent transportation system (ITS) field deployment, pavement management, etc.

This program shall identify mitigation measures to achieve an additional five percent overall reduction in VMT by 2030, and 10

percent by 2040 (relative to 2030 and 2040 business as usual scenarios, respectively). During implementation of the 2040 General Plan, the County shall will review and update the VMT Reduction Program as warranted to provide additional mitigations measures and programs that achieve these levels of VMT reduction.

Specifically, Mitigation Measure CTM-2 would require, depending on the project type, VMT thresholds of significance and mitigation measures that will achieve VMT thresholds of significance and mitigation measures that will achieve a minimum 15 percent VMT reduction from new residential, commercial, and industrial development relative to the regional average and no net increase in regional VMT for other projects through incorporation of VMT thresholds of significance and mitigation measures into the Initial Study Assessment Guidelines pursuant to Senate Bill (SB) 743 implementation. Discretionary projects exceeding the thresholds of significance will be required to implement feasible mitigation measures to reduce VMT.

Additionally, Mitigation Measure CTM-3 would, after accounting for the VMT reductions from new development achieved pursuant to VMT thresholds established under Mitigation Measure CTM-2, establish a program to achieve an additional 5 percent overall reduction in VMT by 2030, and 10 percent by 2040 (relative to 2030 and 2040 business as usual scenarios, respectively). Refer to Master Response MR-1.C for additional discussion of the 2040 General Plan, its policies and programs, and draft EIR mitigation measures for significant GHG emissions impacts.

O1-17 The comment asserts that there are significant environmental impacts associated with existing use and transmission of electricity from fossil fuels and suggests an alternative method of electricity distribution. The comment is not related to the content, analysis, or conclusions of the draft EIR which evaluates reasonably foreseeable future conditions that can be anticipated with implementation of the 2040 General Plan.

Notably, the 2040 General Plan does include Policy PFS-7.7, through which the County would collaborate with others to develop community microgrids.

O1-18 The comment asserts that failure to properly manage solid waste would result in significant environmental impacts requiring a comprehensive mitigation approach.

Based on the thresholds established in the ISAG and Appendix G of the State CEQA Guidelines, Section 4.17, "Utilities," establishes that a significant impact related to solid waste would occur if the 2040 General Plan would: "Result in a direct or indirect adverse effect on a landfill's disposal capacity, such that it reduces its useful life to less than 15 years or is not consistent with federal, State, and local management and reduction statutes related to solid waste" (see page 4.17-4 of the draft EIR).

However, there would be a less than significant impact due to implementation of the 2040 General Plan because future development would be required to be consistent with applicable solid waste facility requirements included in the California Health and Safety Code, California Code of Regulations, California Public Resources Code, and Ventura County Ordinance Code (see page 4.17-5 of the draft EIR). No mitigation is necessary.

Note that these regulations include goals and requirements related to recycling. The 2040 General Plan also includes policies that would encourage waste reduction and recycling, which would result in GHG reduction. Refer to policies PFS-2.4, PFS-5.4, and PFS-5.9. Also refer to Master Response MR-1.A for discussion of landfills as sources of methane emissions.

- O1-19 The comment summarizes more detailed comments provided elsewhere in the comment letter. Refer to responses to comments O1-20 through O1-32, below, regarding policy recommendations for the 2040 General Plan to achieve GHG reduction goals to mitigate climate change. Note, however, that the draft EIR does not evaluate the effects of climate change on the 2040 General Plan and the EIR for the 2040 General Plan is not required under CEQA to mitigate existing or anticipated effects of the environment on the plan area; the EIR analyzes the physical environmental changes that would occur as a result of 2040 General Plan implementation.
- O1-20 The commenter supports comments submitted by Bruce Smith and asserts a lack of analysis regarding environmental justice policy issues. However, EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines Section 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The social issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR. Also, see responses to Letter I20 from Bruce Smith.
- O1-21 The comment asserts that overriding considerations should not allow a project to not reduce VMT "unless all of the vehicles have zero emissions that will use the project." The comment appears to address the VMT evaluation and mitigation of future projects under CEQA.

With respect to the 2040 General Plan, the draft EIR included analysis of VMT impacts in Impact 4.16-1 (Exceed VMT Thresholds) starting at page 4.16-22. The analysis provides forecast estimates of countywide trip-based VMT under implementation of the 2040 General Plan for several land use types included in the 2040 General Plan (e.g., residential, office, industrial, retail) and compares the results to VMT thresholds developed for each land use type (refer to Table 4.16-5 on page 4.16-24). The draft EIR provides detailed discussion of the policies and programs that would reduce the rate and total amount of VMT associated with future development, and concludes that the impact would be potentially significant because the rate and total amount of VMT under implementation of the 2040 General Plan would exceed the VMT thresholds as shown in Table 4.16-5. The draft EIR then provides three feasible mitigation

measures to achieve additional VMT reductions, Mitigation Measures CTM-1, CTM-2, and CTM-3 (pages 4.16-27 to 4.16-28), through which the County would achieve additional VMT reductions by revising ISAG to specify how it will analyze VMT and require VMT-reducing mitigation measures for discretionary projects that implement the 2040 General Plan and implement a VMT Reduction Program to achieve additional countywide and project-level VMT reductions. Table 4.8-5 (page 4.8-40) estimates the VMT and GHG reductions that would occur by 2030 from implementation of Program CTM-B (as revised by Mitigation Measure CTM-2) and Program CTM-C (as revised by Mitigation Measure CTM-3).

Refer to response to comment O1-11 for discussion of 2040 General Plan policies and programs that support transportation electrification. The County does not have the authority to mandate that all vehicles operating in the county under 2040 General Plan implementation be zero emission vehicles. For example, the County cannot mandate that all vehicles sold in the unincorporated county be zero emission vehicles, or require that all existing vehicles in the unincorporated county be replaced with zero emission vehicles, or mandate that all vehicles traveling to or from a future development project be zero emission vehicles. The comment does not offer any specifics on how the County should or could require all zero emission vehicles. No further response to this comment can be provided.

- O1-22 The comment states that CTM 3-9 (Funding for Bicycle Network and Wayfinding Planning and Improvements) has a significant environmental impact. 2040 General Plan Policy CTM-3.9 is related to pursuit of funding for bicycle network and wayfinding improvements, and is not related to widening of State Route (SR) 118. The comment appears to conflate and misinterpret Policy CTM-2.9 (State Route 118 Improvement in Saticoy Area) through which the County would work with the Ventura County Transportation Commission and the California Department of Transportation to reprioritize the re-striping of SR 118 to add another travel lane in each direction. The commenter does not offer details to support the assertion that this policy would result in significant environmental impacts, what specific environmental impacts would result, or how these impacts have not been addressed by the draft EIR. Therefore, no further response can be provided. Also refer to response to comment A8-2 regarding programmed improvements to SR 118.
- O1-23 The comment addresses benchmarks for reducing VMT and frequency of public review of “the plan.” The draft EIR does not include a benchmark, but it does include a baseline, see Table 4.16-2 in the draft EIR. The comment does not provide any details regarding its request for VMT reduction benchmarks or the particular plan that it asserts needs public input every 2 years until 2028 and no longer than every 5 years thereafter. Refer to the response to comment O1-21 for discussion of the three feasible mitigation measures included in the draft EIR to achieve additional reductions in the rate and amount of VMT in the county, including Mitigation Measure CTM-3, through which the County would implement a VMT Reduction Program. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General Plan.

- O1-24 The comment suggests that parking programs to reduce single-occupancy trips be included in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, note that the 2040 General Plan does include parking policies to reduce single-occupancy trips, including Policy CTM-4.3 which would encourage preferential parking for carpools/vanpools; Policy CTM-4.4 to facilitate carpooling, vanpooling, and public transit use through park-and-ride facilities; and Implementation Programs CTM-N and CTM-O, which address the provision of parking areas to support shared mobility services and Mobility-as-a-Service vehicles, which reduce single-occupancy trips. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O1-25 The comment provides suggested edits to policies proposed and suggests additional topics that could be considered in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- The comment states that Policy PFS-2.1 must be revised to say “include” rather than “encourage” ‘Sustainable Plans and Operations’ in order to be considered a mitigation. However, Policy PFS-2.1 is a 2040 General Plan policy that was analyzed as part of the draft EIR and is not a proposed GHG mitigation measure. Additionally, the comment refers to the title of the policy, not the language within the policy, which states “the County shall encourage energy efficiency, GHG reduction features, and resiliency planning into County facility and service plans and operations.” Regarding Policy PFS-7.1, this policy refers to gas lines being “located appropriately to provide for adequate services” and does not require access to or use of natural gas by residential or any other uses.
- O1-26 The comment asserts that local renewable energy generation must be part of the mitigation plan for reducing transmission facility fire hazard risk. The 2040 General Plan includes multiple policies and programs that encourage renewable energy use and development, including Policies COS-8.1, COS-8.4, COS-8.5, COS-8.8, and Policy EV-4.4, through which the County would “identify appropriate locations to allow for development of renewable energy generation and storage...and distribution systems.” For further discussion of these policies and the County’s approach to renewable energy, refer to Section 4.6, “Energy,” of the draft EIR. Note also that 2040 General Plan Policy HAZ-11.7 encourages the installation of solar panels on existing buildings and Policy LU-11.4 calls for the local capacity for zero-carbon electricity generation to be expanded, which would include renewable energy such as solar. These renewable energy sources could complement smart grid technologies described in Policy PFS-7.6 to optimize their performance.
- The commenter does not provide the County with specific recommendations regarding what additional renewable energy generation policies would substantially reduce the potential for fire hazards associated with transmission facilities. Absent a specific proposal for consideration, no further response can be provided.

- O1-27 The comment suggests that the County achieve zero waste (via a suite of policies to reduce, reuse, and recycle) with no organic waste going to landfills by 2023, compostable takeout food requirement, reducing solid waste by phasing out single use plastics, and banning expanded polystyrene. The County has determined that a zero-waste target is not feasible, as landfills located within the unincorporated county receive waste from outside of the jurisdiction. The County has also determined that the timeframe suggested is infeasible, as the diversion of organic waste from landfills would require the expansion of alternative processing facilities such as anaerobic digesters and composting, which require more than 3 years from adoption for planning, permitting, and construction to reach necessary capacity. Regarding compostable food packaging, existing Policy PFS-2.4 states that the County shall provide use of biodegradable or recycled-material products at County facilities and events, where feasible. Regarding the ban on expanded polystyrene, this product is frequently used as an affordable insulation material for energy efficiency in buildings (CEC 2017). A ban of this product would eliminate a commonly used building product that improves energy efficiency and reduces GHG emissions associated with the operation of commercial and residential buildings.
- The commenter does not provide the County with specific recommendations regarding how to achieve a zero-waste target given the unincorporated county landfills receive waste from outside of the jurisdiction. Additionally, the commenter does not offer solutions to expedite the permitting and construction of the facilities required to achieve a zero-waste goal. Absent specific recommendations to achieve the goal, the County has determined the 2023 goal to be infeasible and no further response can be provided.
- O1-28 The comment provides a series of policy recommendations for the Conservation and Open Space Element of the 2040 General Plan and is not related to the analysis or conclusions of the draft EIR. Refer to Master Response MR-4 for discussion of setbacks from sensitive receptors, the potential to phase out oil and gas production, Policy COS-7.8 and Mitigation Measure PR-3 related to flaring, and Policy COS-7.7 and Mitigation Measure PR-3 regarding trucking of crude oil and produced water. Refer also to Master Response MR-1.A for a discussion of methane “super emitters.” The comment also suggests that oil and gas production should be taxed to raise revenues for climate programs, as well as bond and insurance requirements related to funding for potential for accidents and well closure. Note that the County would evaluate the feasibility of establishing a tax on this industry through Implementation Program M in the Conservation and Open Space Element.
- O1-29 The comment suggests additional policies to be included in the 2040 General Plan to help achieve GHG reduction goals. The following addresses the suggestions for reducing GHG emissions provided in the comment.
- ▶ Ban gas-fueled lawn and garden equipment.
 - This recommendation would ban the use of gas-fueled lawn and garden equipment in the unincorporated area. County staff believe that a County policy banning the use of gas-fueled lawn and garden equipment is

infeasible for the following reasons: (1) The County would be required to expend significant resources in order to effectively implement such a ban; (2) the County would first need to prepare and enact a new municipal code provision outlawing use of the equipment; and (3) Voluntary compliance with the ban could not be assumed. Consequently, the County would presumably need to issue civil or criminal citations to individuals and businesses that did not comply after collecting evidence supporting the alleged violations. This would be a time- and labor-intensive process given the dispersed use of lawn and garden equipment, and the fact that the equipment is typically only briefly used in any given location.

In order to comply with the ban, all residents and businesses currently using gas-fueled lawn and garden equipment in the unincorporated area would be required to replace their existing equipment with electric equipment and/or other methods for landscaping. This would present a financial and potentially logistical hardship to residents and businesses.

On the GHG benefit side, banning gas-fueled lawn and garden equipment in the unincorporated area would result in only a very minor reduction in GHGs. County staff believes this type of regulation would be more effective if implemented at the state level.

- ▶ Accelerate capture of legacy hydrofluorocarbons (HFCs). Enlist the public and private sectors to find and destroy existing stocks of HFC's.
 - HFC's are regulated by CARB through the California Cooling Act, CCR Title 17, Section 95371 and the Short-Lived Climate Pollutant Strategy and were, therefore, not included as part of the GHG emissions associated with the 2040 General Plan.
- ▶ Develop and adopt building codes based on best practices for use of low embodied carbon concrete and set targets for use of low GHG concrete alternatives. Ex: Bay Area Air Quality Management District and King Co, WA.
 - This would require performing a lifecycle analysis of GHG emissions. This was not included in the GHG inventory because it is inconsistent with the ICLEI accounting protocol. Therefore, this measure would not reduce GHG emissions associated with 2040 General Plan implementation. No specific BMPs are mentioned in this comment. Therefore, no further response has been provided. Refer to Master Response MR-1.A for additional discussion of the GHG inventory.
- ▶ Encourage climate-safe and climate-resilient development through zoning reform and removal of limits on height, density, and minimum parking requirements to enable and promote walkability and a mix of uses for homes and businesses, parks and transit.

- This is already addressed in the 2040 General Plan, for example, under Policy CTM-2.11 (Efficient Land Use Patterns). This policy states that the County shall establish land use patterns that promote shorter travel distances between residences, employment centers, and retail and service-oriented uses to support the use of public transportation, walking, bicycling, and other forms of transportation that reduce reliance on single-passenger automobile trips.
- ▶ Create a master local clean energy siting and funding plan for wholesale distributed solar energy plus storage in commercial scale projects producing energy needs by 2030.
 - The County is a member agency of the Clean Power Alliance (CPA) of Southern California. This entity supplies electricity to the community through contracts from clean sources sited and financed by private entities. CPA offers electricity based on 100 percent renewable energy to commercial end users and additionally offers a program for battery storage through a Power Response Program (CPA 2020a,b).
- ▶ Provide energy efficiency benchmarking and rebates for low-income housing and renters, as well as low-interest loans for small businesses to reduce energy use; and provide assistance to owners of existing buildings to switch from natural gas to electricity.
 - The County already participates in programs that conduct municipal and communitywide benchmarking, and incentivizes residential and commercial energy efficiency upgrades. The County also conducts other activities similar to the commenter’s recommendations including the County’s Energy Efficiency Revolving Loan Fund Program for municipal facility energy efficiency upgrades; Ventura County Regional Energy Alliance’s Countywide Municipal Benchmarking Program for municipal facilities, Kilowatt Hour Countdown Program which provides free energy benchmarking and auditing for commercial facilities, Ventura County Green Business which provides assistance to businesses in becoming “Green Certified” through attainment of program standards, conserving energy and other factors; and the Tri-County Regional Energy Network which reduces energy use in buildings through its Home Energy Savings, Building Performance Training, and Energy Code Connect Programs. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on the adoption of the final 2040 General Plan.
- ▶ Prepare sustainable building, siting, landscaping and passive heating and cooling practice guidelines, with a priority on low-income housing, that reduce consumption of nonrenewable resources and that include climate and fire-safety in pre-approved plans.
 - Several existing guidelines and protocols are available to guide the development of sustainable communities, including low-income housing. Features selected as part of this design process are generally site-

specific. Refer to U.S. Department of Housing and Urban Development's Sustainable Communities Resource Center (HUD 2020) for information on guidelines available as well as the U.S. Environmental Protection Agency's guide to smart growth and affordable housing (EPA 2020).

- ▶ Use "Energy Efficiency" to deliver 15 percent of projected needs for electricity in the county by 2023; and 30 percent by 2030.
 - Energy efficiency involves improving the performance of buildings and equipment to achieve reductions in energy consumption. It is not clear what relevance energy efficiency has to delivering specified percentages of electricity needs, as described in the comment.
- ▶ Prioritize energy and water efficiency building standards and work to retrofit existing buildings.
 - It is not clear from this comment what energy and water efficiency standards are being requested for prioritization, or what they are being prioritized in comparison to. Retrofitting buildings is identified in Policy HAZ-11.7 which states that "The County shall encourage development to include retrofits to improve building performance and market value through strategic building design features." See page 4.8-30 of draft EIR.
- ▶ Decarbonize County buildings develop a County building electrification plan eliminating natural gas use in County-owned facilities.
 - The County has determined that eliminating natural gas use in County-owned facilities is not feasible because it would likely require hundreds of thousands of dollars in equipment replacement costs and some equipment such as boilers, commercial cooking appliances, and furnaces simply do not have electric equivalents. In addition, natural gas use by County-owned buildings represents a minimal portion of total GHG emissions in the county.
- ▶ Develop an electrification plan with goals for GHG emission reductions through renewable energy that evaluates and prioritizes programs for local solar, energy storage and demand response that disconnects all buildings from gas service by 2050. Include incentives for deep retrofits of inefficient buildings.

The 2040 General Plan supports renewable energy generation, use, and storage. Mitigation Measure GHG-1 in the draft EIR would eliminate natural gas service to new residential and commercial development. However, the County has determined that disconnecting all existing buildings from natural gas service is not feasible because almost half (44 percent) of the residential development in the unincorporated county was constructed prior to 1970 (based on American Community Survey 2012-2017 5-year data), and development from that era typically includes natural gas service. Furthermore, all non-residential structures in the incorporated county that currently rely upon natural gas service would be subject to this policy. Typically, gas service

retrofits to all-electric would require significant building upgrades that are beyond the scope of the County's authority to require. Conversion to all-electric buildings can be incentivized, and this is already anticipated to occur through the Technology and Equipment for Clean Heating Initiative and Building Initiative for Low-Emissions Development Program administered by Southern California Gas Company and other utilities pursuant to Senate Bill 1477 (CPUC 2020). These programs would fund electrification retrofitting and all-electric new construction throughout the State, including eligible projects in the county. These methods incentivize building upgrade and retrofits for existing structures, rather than require them.

Based on the above, the County staff determined this recommended policy would cause an undue financial hardship on the businesses and residents of the unincorporated county, could not legally be implemented, and is therefore infeasible.

- O1-30 The comment suggests additional topics that could be considered in the 2040 General Plan and is not related to the adequacy of the draft EIR. Recommendations include: creating an integrated pest management program, reducing the use of inorganic fertilizers, encouraging diversified crops, and rewarding regenerative farming.

As explained in the draft EIR, the 2040 General Plan includes eight implementation programs that would result in GHG emissions reductions from the agricultural uses in the county, including programs that reduce use of inorganic fertilizers, encourage farmers to adopt organic growing techniques, encourage the capture and storage of concentrated carbon in soils from farm waste and woody biomass, and improve soil health and reduce the need to apply inorganic fertilizers (pages 4.8-39 to 4.8-43). Note that the 2040 General Plan includes Policies AG-3.2 and AG-3.3, which encourage and support the use of Integrated Pest Management practices and provide information on how to do so. Similarly, Policy AG-5.1 encourages the use of inorganic, nitrogen-based fertilizers to reduce nitrogen emissions. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- O1-31 The comment provides suggested actions that could benefit water resources, but fails to provide evidence linking benefits from these actions to impacts from implementation of the 2040 General Plan identified in the draft EIR. Section 4.10, "Hydrology and Water Quality," in the draft EIR does not identify any significant environmental impacts. As indicated in response to comment O1-19, the EIR is not obligated to mitigate existing climate change or the effects that such changes could have on the project. Further, the 2040 General Plan includes Policies PFS-4.4, COS-2.10, and WR-4.1 that encourage preservation of groundwater resources and allows for greater availability of local water resources, which could reduce the use of water from more GHG-intensive sources. For this reason, no further response is provided. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on the adoption of the final 2040 General Plan.

- O1-32 The comment suggests additional topics that could be considered in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on the adoption of the final 2040 General Plan.
- O1-33 The comment emphasizes the need for an adequate plan that sufficiently reduces GHG emissions and indicates that the plan should include a goal for carbon neutrality. Refer to Master Response MR-1.B for a response on the alignment of the 2040 General Plan and statewide targets. This comment is a concluding statement and does not raise a significant environmental issue for which a response is required.



February 27, 2020

Sent Via Email Only - *GeneralPlanUpdate@ventura.org*

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740

RE: Comments on Analysis of Environmental Impact Report for Draft 2040 General Plan
 (State Clearinghouse #2019011026)

Dear Ms. Curtis:

This letter provides comments on behalf of ABA Energy Corporation ("ABA") on the analysis of the environmental impacts provided in the Draft Environment Impact Report for the Draft 2040 General Plan ("DEIR"). In addition to my general comments, I have also included a more specific set of detailed comments referencing specific sections of the DEIR.

For the last ten years my company, ABA, has been actively exploring for and producing oil and gas in the Oxnard Oilfield in Ventura County utilizing traditional recovery methods. We have worked cooperatively with the Ventura County Planning, Building, and Fire Departments, the Ventura County Air Pollution Control District, as well as the state regulatory agencies to conduct our operations for the mutual benefit of the farming families who own the minerals under their farm property and others, including ABA who have a vested interest in the minerals. We have invested tens of millions of dollars in our effort and generated significant tax revenue in the process. It is our intention to continue to conduct these lawful operations and drill additional wells in accord with the existing stringent laws, regulations, and rules that are among the most rigorous in the world. As a mineral resource lessee and a production operator in the County, ABA will be directly and substantially affected by the adequacy of environmental review undertaken in support of the 2040 General Plan as well as implementation of the 2040 General Plan.

O2-1

The DEIR is deficient in many aspects and we respectfully request that the DEIR be significantly revised and recirculated, as required by the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq) ("CEQA") and the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15000 et seq.) ("CEQA Guidelines"). Given the DEIR's failure as an informational disclosure document and its failure to identify and impose all feasible mitigation measures, the DEIR, in its current form, cannot support approval of the County's proposed update to its current general plan ("2040 General Plan"). The DEIR's legal deficiencies must be cured and it must be recirculated prior to any approval of the 2040 General Plan.

O2-2

An EIR must be prepared with a sufficient degree of analysis to provide decision-makers with the information needed to make an intelligent judgment concerning a project's environmental impacts. 14 Cal Code Regs §15151. *Napa Citizens for Honest Gov't v Napa County Bd. of Supervisors* (2001) 91 CA4th 342, 356. An EIR should, when looked at as a whole, provide a reasonable, good faith disclosure and

O2-3

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analysis of the project's environmental impacts. *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1988) 47 C3d 376, 392.

O2-3
 cont.

GENERAL COMMENTS

Replacing Locally Produced Oil with Imported Oil Will Increase, Not Reduce, Greenhouse Gases.

The term “Greenwashing” applies to organizations that disseminate disinformation and misleading claims so as to present an environmentally responsible public image when in fact their policies and products have the opposite effect. As a part of California’s push for environmental justice, several companies that have engaged in Greenwashing have even been sued by the Attorney General.¹ The County of Ventura appears to be engaging in Greenwashing by proposing policies that it touts will achieve a decrease in greenhouse gases (“GHG”), by eliminating locally produced, highly regulated, oil and gas production, when in reality these policies will cause an increase in GHG and other pollutants. While the DEIR acknowledges at pages 4.12-21 through 4.12-23 and 4.12-32 that these policies, as proposed, will result in increases in the importation of oil (i.e. more oil trains and oil tankers), there has been no effort to quantify the corresponding increase in GHG and other pollutants that will be the direct result of such policies or their impact on the environment. The abject failure of the DEIR to address the environmentally harmful effects of policies designed to push impacts outside the County Line (as if they will then magically cease to exist) is Greenwashing by any definition.²

O2-4

In my 37-year career as a petroleum engineer, I have had the opportunity to participate in the exploration and production of oil and gas both domestically in various states and all over the world and as a result, I am familiar with the regulations that have been imposed on oil and gas production by various foreign and state governments as well as other jurisdictions within the State of California. The existing laws, rules and regulations in Ventura County that apply to oil and gas production are among the strictest I have experienced in my career. For example, the Ventura County Air Pollution Control District enforces strict air quality standards and air credit programs that have resulted in dramatically reduced emissions as compared to the emissions from oil and gas production from other states and certainly other countries. In addition, and as noted below in the detailed comments, not all oil is created equal when it comes to Carbon Intensity. The California Air Resources Board (“CARB”) publishes Carbon Intensity values for the various crude oil sources under their Low Carbon Fuel Standard Regulation. The most recent published data is from 2018 which demonstrates that the Carbon Intensity from the oil produced in the Oxnard Oilfield (where all of ABA’s production is located), on an annual average, is less than half the Carbon Intensity of the crude oil used in California as a whole during 2018 (5.39 vs. 12.35 gCO₂e/MJ).³ A quick look at this Carbon Intensity data also reveals that the Carbon Intensity of oil from Alaska was 15.91 gCO₂e/MJ and the Carbon Intensity of the blended average of oil from Saudi Arabia was 8.82 gCO₂e/MJ.

O2-5

Drop per drop, barrel per barrel, simply replacing locally produced Ventura County oil with imported oil will result in an increase in GHG, and that is true even before considering the huge environmental impacts associated with the GHG and other pollutants generated in the process of shipping that replacement oil across the world (not to mention the increased risks associated with oil spills). Simply put, the DEIR is

O2-6

¹ <https://oag.ca.gov/environment/greenwashing>

² <https://foe.org/alaskan-arctic-california-crude/>; <https://www.forbes.com/sites/chuckdevore/2019/10/07/californias-next-offshore-oil-spill-will-be-caused-ironically-by-the-states-war-on-oil/#652f8fbb6535>

³ https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/2018_crude_average_ci_value_final.pdf

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deficient because it fails to quantify in any meaningful way, using readily available data, the increases in GHG and other pollutants that will be caused if the new policies inhibiting new oil and gas production presently contained in the 2040 General Plan are implemented. The failure of the County to “come clean” by providing a meaningful GHG analysis of its decision to favor imported oil over cleaner, highly regulated, locally produced oil, renders the DEIR inadequate as an informational disclosure document, as a matter of law.

O2-6
 cont.

The Proposed 1,500’/2,500’ Setback for New Discretionary Oil and Gas Wells is an Unmitigated Taking that is Not Supported by Substantial Evidence.

Policy COS-7.2 as proposed would require that new discretionary oil and gas wells be located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school. In support of these drastic setback requirements, the County failed to conduct any analytical studies demonstrating why the current setback (500’ and 800’) in combination with routine mitigation requirements (i.e. sound walls during drilling and workover operations) in combination with current air quality restrictions including vapor recovery for all facilities and zero emission tolerances are inadequate. The DEIR acknowledges that the VCAPCD conducts quarterly inspections of oil and gas facilities to enforce the zero emissions policy and it is unclear from any information why such current mitigations are inadequate. The DEIR fails to cite any air monitoring study, any noise study, any vibration detection study, or any odor study conducted in like or similar conditions to support its conclusion that a change in setbacks for oil and gas wells would in any way change a single environmental impact for sensitive receptors or otherwise.

Rather than rely upon actual data and analysis to support Policy COS-7.2, the DEIR relies heavily on a report by the Los Angeles County Department of Public Health issued in February of 2018 entitled: “Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County” (“LA County Report”). Such reliance is misplaced as the LA County Report fails to supply any actual data or analysis that is applicable to the circumstances at issue in the Ventura General Plan area. First, the basis of the study was to address public health and safety concerns related to oil and gas reserves that “lie beneath densely populated urban areas” which are the exact opposite of the areas currently available for new oil and gas wells in unincorporated Ventura County. Second, the LA County Report concluded, “the epidemiological studies are not able to conclude whether or not living near oil and gas activities is associated with long-term health impacts.” Third, neighborhood health investigations were conducted in support of the report, which demonstrated low risk levels for risks associated with hydrogen sulfide gas, operating pressures, and drilling frequency but six out of the 15 facilities they inspected had oil wells or tanks within 300 feet of residences or sensitive receptors which has no bearing on the current regulations for new wells in Ventura County.

O2-7

No independent studies were conducted to determine actual setback criteria with and/or without mitigation measures. Rather, the study group looked at Seven (7) EIRs and Two (2) Health Impact Assessments plus one (1) study from Colorado, none of which related to oil and gas development in unincorporated Ventura County under existing setback requirements and emission controls that are applicable currently to new discretionary oil and gas wells in Ventura County. The LA County Report concluded that most of impacts could be mitigated, but it is unclear from this report upon what data and under what circumstances they based any of their findings. For example, even though they found little or no evidence of odors that were directly related to hydrogen sulfide (H₂S) that is associated with certain oil fields, they suggested imposing an additional 500-foot set back regardless of whether H₂S was known to be a problem in that oil field. Further, regarding their recommendation for setbacks to address noise issues, they failed to address the effect of routine mitigation measures that are employed during drilling operations. Simply put, the LA

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County Report fails to provide substantial evidence to support the proposed increase in setback requirements for new discretionary oil and gas wells. The DEIR begrudgingly acknowledges that in July of 2019 the City of Los Angeles rejected the findings in the LA County Report and adopted a 600-foot setback for new oil and gas wells.

While the DEIR does reference a couple of other studies, the record is clear that none of the other studies cited in the DEIR, were conducted in Ventura County under conditions similar to or approximating the existing regulatory conditions to which a new discretionary oil and gas well would be subject. There is simply an absence of relevant data or a sufficient degree of analysis to provide decision-makers with the information needed to make an intelligent judgment concerning such a dramatic change in the setback requirements for new discretionary oil and gas wells.

O2-7
 cont.

It is worth noting that if Policy COS-7.2, (with mitigation measures or not) were adopted, a farmer who conducts farming operations utilizing diesel tractors and other heavy equipment, spraying pesticides, herbicides, and fertilizers, and otherwise engaging in dusty, noisy, routine farming immediately adjacent to sensitive receptors, would at the same time be completely precluded from developing the minerals on his property within 1,500 feet of those same sensitive receptors, even though such oil and gas development could be conducted in a manner that imposes little or no impacts on those same sensitive receptors. The application of an artificial setback requirement for which there is no actual scientific or other supporting data is illegal, is being applied in a punitive manner, and such loss of the rightful use of the farmer's property would be an unconstitutional taking, a fact that appears to be acknowledged in the DEIR.

Like Most Businesses, Trucking is the Only Feasible Method of Getting Our Product to Market.

Like most businesses in Ventura County that produce a product (i.e. farming, manufacturing, or other industries), the only feasible method for our company to get its product to market is to utilize trucking. Policy COS-7.7, as proposed, fails to address any other industry, but singles out oil production for some special mistreatment. Interestingly, this policy attacks only trucking to a refinery, but exempts from regulation the trucking of the finished petroleum product from that same refinery back into the community. There is no scientific or other basis that supports this disparate treatment such that the only logical conclusion is that it has been proposed as a punitive measure which is unconstitutional. As noted above, if the purpose of the Policy is to diminish Ventura County oil and gas production, the end result is an increase in GHG and other pollutants. Until the volume of oil production justifies the significant environmental impacts and costs associated with the construction and maintenance of new oil pipelines, trucking is the only feasible method of getting our product to market. Unless modified, Policy COS-7.7 will result in the inability to drill new discretionary oil and gas wells, which would cause economic harm to the mineral owners and other vested rightsholders, who intend to drill new discretionary oil and gas wells and it will result in an increase in GHG and other pollutants. The DEIR fails to include substantial evidence concerning the impacts to environment caused by the need to construct and maintain multiple new oil and water pipelines.

O2-8

In Some Locations, Flaring of Natural Gas is the Only Feasible Option.

Policy COS-7.8 would require that natural gas produced from new discretionary wells be collected and used or removed for sale without flaring. ABA has expended much time and resources attempting to develop a sales market for the natural gas that is produced with its oil production. Unfortunately, despite our best hopes, none of the proposed compressed natural gas ("CNG") or liquid natural gas ("LNG") options we have investigated have come close to achieving a viable plan to take the natural gas we produce and

O2-9

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transport it in an environmentally and economically feasible manner for delivery to a stable, sustainable market. Although we are prohibited from sharing data concerning our efforts, we have also determined that delivering natural gas from our operation into a local utility line was not feasible regardless of the distance to the nearest utility pipeline. The remaining feasible option for most of our existing natural gas is to flare it in accord with the permits issued by the VCAPCD. To that end we have expended significant sums to obtain a BACT flare that has significantly diminished (>90%) the emissions from the flaring process and we participate in the air credit program administered by the VCAPCD (neither mitigation is considered in the DEIR). In other words, we have taken all feasible steps to mitigate the impacts of our production, which does not occur with most imported oil. Unless modified, Policy COS-7.8 would result in the inability to drill new discretionary oil and gas wells, which would cause economic harm to the mineral owners and other vested rightsholders, who intend to drill new discretionary oil and gas wells and it will result in an increase in GHG and other pollutants as well as constitute an unconstitutional taking of vested rights.

O2-9
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The DEIR Fails to Include an Economic Study or Address the Physical Changes to the Environment Caused by the Loss of Tax Revenue Resulting from Proposed Changes to Oil and Gas Policies.

The physical changes to the environment caused by the loss of tax revenue from diminished oil and gas production are significant and need to be addressed in the DEIR. While economic and social effects ordinarily need not be discussed in an EIR, physical changes to the environment caused by a project's economic or social effects are secondary impacts that must be included in an EIR's impact analysis if they are significant. (14 CCR §15064(e)). An EIR may trace the effects of economic or social changes resulting from a project to physical changes caused by the economic or social changes. (14 CCR §15131(a)). Under this rule, a social or economic effect resulting from a project may be found to cause a significant physical impact that must be analyzed in the EIR. See *Bakersfield Citizens for Local Control v City of Bakersfield* (2004) 124 CA4th 1184, 1215 (EIR improperly dismissed possibility that large shopping center could drive other retailers out of business as an economic effect when urban decay and other blight-like conditions could result); *El Dorado Union High Sch. Dist. v City of Placerville* (1983) 144 CA3d 123 (while increased student enrollment and potential for overcrowding by itself is likely insufficient to implicate CEQA, such effects are relevant when they will lead to construction of new facilities). See also *City of Hayward v Board of Trustees of Cal. State Univ.* (2015) 242 CA4th 833, 842 (EIR properly analyzed potential environmental impacts of constructing new fire station needed to serve project while also recognizing that cost of meeting increased need for fire protection services is economic impact).

O2-10

The County of Ventura relies on tax revenue for its annual operating budget that includes significant tax revenue resulting from the drilling of new oil and gas wells. In fact, until there is a successful oil and gas well drilled, the mineral estate is not taxed and is not even included in the evaluation of property taxes. Operators of oil and gas properties, such as ABA, are required to provide data concerning new wells to the County Tax Assessor in order for each new well to be assessed for property tax purposes. The policies in the Draft 2040 General Plan attacking future oil and gas production will preclude mineral owners and their lessees from drilling new wells thus condemning the property (an unconstitutional taking) and cause the County to lose the property tax revenue that would have otherwise been generated had the minerals from such property been developed. Further, oil and gas development generates significant direct sales tax revenue and secondary revenue from employees, contractors and vendors all of which will be lost if the policies designed to inhibit future oil and gas development are adopted.

Even a cursory review of Section 5 of the Draft 2040 General Plan which addresses Public Facilities, Services, and Infrastructure reveals that any loss of funding for the essential facilities, services and

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infrastructure the County provides would likely cause a physical change to the environment that would threaten the very existence of the citizens, homes, businesses, farms, open space and wildlife in Ventura County. Tight county budgets are already a reality with departmental belt tightening being the norm. For example, a loss of mineral tax revenue and associated sales tax revenue will further strain the budget of the Ventura County Fire Protection District (“VCFPD”) that provides fire protection in the unincorporated areas of the County along with various cities. A review of the Budget for the VCFPD for 2017-18 reveals that of the \$178,618,708 annual budget, property taxes (\$133,586,989) accounted for nearly 75% of the total budget. A cut in property taxes due to policies hindering oil and gas production will result in a drop in funding that will make the VCFPD less prepared to prevent and defend future wild fires to which the County of Ventura is already susceptible. Wild fires cause physical change to the environment which is significant and therefore an economic study must be conducted to determine the impacts caused by the loss of oil related tax revenue in this DEIR. Similarly, there are many other physical changes to the environment that are significant that could result from a lack of funding for the County services we rely on to protect the environment and if there is a deterioration of funding due to lack of oil related taxes, these direct and indirect effects must be included as a part of an economic study to provide decisionmakers with the information necessary to determine the significance of the impacts causing physical changes to the environment. The data to conduct such a study remains in the possession of the County which should be able, with little effort to determine, for example, how much of Ventura County’s budget is derived from property taxes on minerals? How much will Ventura County lose in tax revenue by implementing new policies that discourage or eliminate the drilling of new wells? How much sales tax revenue will be lost that is associated with drilling, maintaining oil and gas wells? How will this loss of revenue impact the Public Facilities, Services and Infrastructure described in the 2040 General Plan Section 5?

O2-10
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Ventura County’s Effort to Ban New Oil and Gas Wells Violates the Law

The DEIR relies upon legally infeasible policies proposed in the 2040 General Plan that have as their direct and indirect goal, the elimination of oil and gas exploration and production in Ventura County. These proposed Policy changes, as described herein, affecting new oil and gas wells are infeasible in that they will result in a ban on new drilling, which conduct by the County is preempted by state and federal law, is unconstitutional, violates equal protection under the law, is discriminatory as a matter of law, and constitutes a taking. ABA reserves all of its rights to pursue every available remedy resulting from the attempt by Ventura County to ban future oil and gas exploration and production in Ventura County.

O2-11

DETAILED COMMENTS

ABA’s specific and detailed comments on the individual chapters and sections of DEIR are set forth below.

- 4.8-25** Without acknowledging the existing ad valorem taxes on oil that are paid to the County, the County is now proposing to evaluate the whether to establish another local tax on oil and gas operations. The DEIR states that increased taxes on oil and gas facilities may reduce GHG emissions which assertion is unsupported by substantial evidence. Further, as noted above, if an additional tax resulted in diminished oil and gas production, the result would be an increase in GHG and other pollutants as noted above. As other stationary sources contribute as much or more GHG, the County appears to be arbitrarily burdening a single industry sector by increasing taxes with no regard to the data presented in the DEIR.

O2-12

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- 4.12-8** Policy COS 7.3. To the extent the County seeks to impose this Policy on new wells drilled subject to an existing and valid special use permit, such policy unlawfully impairs vested property rights and disregards well-settled controlling law concerning a mineral owner’s right to recover resources from his or her sub-surface property and constitutes a taking under state and federal law. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed.
- 4.12-8** Policy COS 7.7. This policy is preempted by state and federal regulations. The DEIR disregards this. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed and not supported by substantial evidence. See the discussion under the General Comments.
- 4.12-12** As noted in the General Comments, as to Policy COS-7.3, there is no substantial evidence provided to justify an increase in the minimum setback requirements for new discretionary oil and gas wells or otherwise demonstrate why the existing setbacks are inadequate. Further, the imposition of such new setbacks will result in an unconstitutional taking. See the discussion in the General Comments regarding the inadequacy of the LA County Report.
- 4.12-13** Reliance on the CCST study is misplaced as it fails to address the existing standards, conditions, setbacks, and mitigation requirements that are in place in Ventura County and presently applicable to new discretionary oil and gas wells; a fact that the study acknowledges by stating that actual exposures and any related health impacts may be different and “have not been measured.” In light of the stated deficiencies the CCST study is not sufficient evidence to support a change in the current setback requirements for new discretionary oil and gas wells.
- 4.12-13** Reliance on a University of Maryland study that purportedly (the study is no longer available on the U of M website) addressed fracking natural gas wells in the Marcellus Shale, completely fails to address the existing standards, conditions, setbacks, and mitigation requirements that are in place in Ventura County and applicable to new discretionary oil and gas wells. In light of the complete absence of relevance to existing conditions, the purported University of Maryland study is not sufficient evidence to support a change in the current setback requirements for new discretionary oil and gas wells.
- 4.12-14 through 4.12.18** See the General Comments regarding COS-7.2
- 4.12-18 through 4.12-20** Mitigation Measure PR-1 for Policy COS-7.2 is a tacit recognition that there is no substantive evidence to support the proposed 2,500-foot setback included in Policy COS-7.2. Mitigation Measure PR-1’s continued reliance on the LA County Public Health Report referenced in the General Comments to support a 1,500-foot setback rather than the 600-foot setback adopted by the City of Los Angeles in July of 2019 demonstrates that this proposed policy is not driven by science, any true analysis, or the facts. As noted in the General Comments, LA County Public Health conducted no studies to measure actual conditions and certainly did not take into consideration the current conditions in Ventura County including the existing regulatory

O2-13

O2-14

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and mitigation measures in place before they picked numbers out of a hat or otherwise guessed how far away you had to be to not smell H₂S. For oil fields in Ventura County that do not have H₂S, that is absolutely no evidence to support the final 500-foot setback reference in the LA County Public Health Report. That being said, there is no substantial evidence in the record to justify the setback language in Mitigation Measure PR-1 for Policy COS-7.2, however a 600-foot setback as adopted as adopted by the City of Los Angeles seems reasonable.

4.12-21 The DEIR’s unsupported conclusions regarding horizontal drilling access are demonstrably false. The DEIR states that: “[w]hile the amended policy would put limitations on the placement of new discretionary oil and gas wells, it would not necessarily prohibit access to the oil and natural gas resources being sought. In resource locations near sensitive land uses, directional drilling (including horizontal drilling) techniques could be utilized. . . .” Ample evidence, readily available to the DEIR preparers, disproves the foregoing. Oilfields in Ventura County contain multiple oil sands vertically stacked in a compact manner. Accordingly, an additional offset of 1,500’ would in most drilling cases either render the geological angle of attack moot, in that a well might ostensibly never be able to mechanically reach all of its targets, or, due to the foregoing, an operator might be required to drill multiple wells to achieve the same production, leading to a significant increase in impacts compared to a single well drilled to accomplish the same geologic goals. Directional drilling would not be possible to replace all of the reserves/resources due to terrain surrounding this area limiting surface locations as well the reservoir structural need to drill north-south directional paths from east or west locations.

O2-14
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4.12-21 through 4.12-23 The DEIR concedes that the majority of the COS policies to be adopted as part of the proposed GP 2040 are adopted for the express purpose of phasing out local oil and gas production within the County. The DEIR further concedes that the County will, as a direct result of this proposed phase-out, need to import foreign sources of oil and gas, and further acknowledges that the importation of such sources will have a more severe GHG production impact than reliance on local oil and gas resources. The DEIR then unlawfully punts on consideration of that more severe impact by stating that those impacts will occur “outside the GP 2040 plan area.” This abdication of responsibility for GHG analysis is not only hypocritical given GP 2040’s objective of combating climate change, but also unlawful. The more severe GHG impacts associated with the Importation of foreign oil and gas are known and must be considered now. To omit this evaluation is to deprive the public and decision makers of the ability to fully and fairly understand and consider the impacts of adopting GP 2040. See also the discussion of this in the General Comments.

4.12-26 The issues arising out of the requirement that produced water not be disposed of via trucking are the same as those discussed in the General Comments regarding trucking.

O2-15

4.12-27 COS Policy 7.8. This policy is not only preempted, but is also inconsistent with VCAPD rule 54 as it notes that all new well gas would be piped through the same gathering system in existing fields. Outside of running a new pipeline to a different gas processing system, there would be no way to break out the gas from the general field production that goes through the

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current gathering system through the gas plant, sales point, or flare. See the comments on the use of flares contained in the General Comments.

O2-16
cont.

4.12-32 In balancing the competing environmental, economic, social and other issues relating to Mitigation Measures PR-2 and PR-3, the County should also consider the significant increases in GHG and other pollutants that will result if the County chooses imported oil with all of its associated risks and ramifications as compared to the cleaner, heavily regulated, locally produced oil that keeps workers employed and increased revenues in the County budget.

O2-17

4.13-1 through 4.13-29 The DEIR makes numerous, unsupported assumptions regarding the noise generated by oil and gas operations. Oil and gas operations generate noise equivalent to other industrial uses. The DEIR does not, and cannot, provide evidence demonstrating that oil and gas production generates noise above and beyond the noise levels generated by industrial activities, let alone that it produces objectionable noise.

O2-18

4.13-23 The discussion under Impact 4.13-4 lists oil supply facilities among major industrial noise sources. No substantial evidence exists in the DEIR or in the Background Report it references. Most oil supply facilities are located in areas far from sensitive receptors except to the extent that the County has permitted new development of sensitive receptors near oil supply facilities.


ABA hereby adopts and relies upon the comments to this DEIR contained in comment letters filed on behalf of all other oil and gas producers and oil industry associations that have provided comment letters as though such comments are fully set forth herein and as such they are incorporated herein by reference.

O2-19

I look forward to working with County staff and the community to achieve a workable 2040 General Plan once this DEIR is rewritten to address the significant flaws referenced herein and the document is recirculated for further review and comment.

O2-20

Respectfully,



Alan B. Adler, President

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| Letter O2 | ABA Energy Corporation Alan B. Adler, President February 27, 2020 |
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- O2-1 The description of ABA Energy Corporation’s role and operations in Ventura County are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- O2-2 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided. Refer to Master Response MR-7 which explains in detail why recirculation of the draft EIR is not required.
- O2-3 The California Environmental Quality Act (CEQA) Guidelines establish standards for adequacy of an EIR in Section 15151. The adequacy of an EIR as an informational document hinges on whether it provides a “sufficient degree of analysis” so that decision makers have the information necessary to consider the environmental consequences of their decisions. The appropriate level of detail is based on what is “reasonably feasible.”

As explained in Section 1.2.1, “Type and Use of This EIR,” of the draft EIR:

This EIR fulfills the requirements for a program EIR. Although the legally required contents of a program EIR are the same as those of a project EIR, program EIRs typically cover broad programs or large projects, such as a general plan, and contain a more general discussion of impacts, alternatives, and mitigation measures than a project EIR...By its nature, a program EIR considers the overall effects associated with implementing a program (such as a general plan) and does not, and is not intended to, examine individual projects that may be implemented pursuant to the general plan.

Given the programmatic nature of this EIR, the County has conducted a good faith effort at full disclosure, providing decision-makers with a sufficiently detailed document to consider the environmental consequences of adopting the 2040 General Plan.

- O2-4 Refer to Master Response MR-4, Section MR-4.K, “Effects Outside the Study Area,” regarding the findings and conclusions related to analysis of effects outside the study area.
- O2-5 The comment describes carbon intensity values from oil and gas production published by the California Air Resources Board (CARB) in 2018. It compares averages statewide with a local oilfield and notes the lower carbon intensity of the latter source. This comment is not related to the adequacy of the draft EIR and no further response is required.

O2-6 The comment asserts that replacing locally produced oil with imported oil will result in increased greenhouse gas (GHG) emissions due to a higher carbon intensity as described in comment O2-5. It also says that increased GHGs and other emissions could result from transportation associated with oil imports. It states the draft EIR is deficient because GHGs and other pollutants are not quantified in a meaningful way.

GHG-reducing policies and programs contained in the 2040 General Plan and analyzed as part of the draft EIR support actions that would reduce the consumption of fuels derived from crude oil, regardless of where that oil originates. The comment indicates that a transition to imported oil would result in increased GHG emissions; however, a review of the CARB 2018 Crude Average Carbon Intensity Values cited shows that some in-state and imported oil sources have lower carbon intensities than the 5.39 grams of carbon dioxide equivalent per megajoule at Oxnard Oilfield, which is used as an example of a local source. Furthermore, restrictions on the carbon intensity of imported transportation fuels occurs at the State level under CARB’s Low Carbon Fuel Standards, rather than at the local level through a general plan.

A full analysis of the environmental impacts of replacing locally produced oil with imported oil would require a lifecycle analysis. Refer to MR-4, Section 4.K, “Effects Outside the Study Area,” for a discussion on the effects of oil and gas policies outside the study area. CEQA does not require lifecycle analysis because the term is not well defined and too speculative, and the Office of Planning and Research removed the term “lifecycle” from the State CEQA Guidelines in 2010. Further, any such speculative analysis would not change the impact determination of significant and unavoidable.

It is further speculative to determine, at this time, whether and how the use of locally produced oil and imported oil would affect future GHG emissions in the county as it involves factors that are outside of the County’s control, such as local and statewide supply and demand analysis, transportation analysis and economic growth. As indicated, CEQA does not require that an EIR engage in analysis that is too speculative (CEQA Guidelines Section 15145). No further response is required.

O2-7 Refer to Master Response MR-4, Section MR-4.B, “Takings and Antiquated Permits,” Section MR-4.H, “Buffers (Setback),” and Section MR-4.E, “Applicability of Reference Studies for Oil and Gas Operations,” regarding the findings and conclusions related to setbacks, and related to the applicability of the reports relied upon for these findings and conclusions.

O2-8 The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements,” regarding the findings and conclusions related to pipelines. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- O2-9 Refer to Master Response MR-4 regarding the findings and conclusions related to flaring, and the County's authority to regulate oil and gas development.
- O2-10 The comment states that the draft EIR does not include an economic study or address physical changes to the environment caused by the loss of tax revenue resulting from proposed changes to oil and gas policies. EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. Therefore, the potential for 2040 General Plan policies related to future oil and gas extraction (Policy COS-7.2, Policy COS-7.7, Policy COS-7.8) to reduce future tax revenues collected by the County is not, by itself, an impact under CEQA. Indirect effects such as physical impacts resulting from an economic effect are defined as those that "are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable" (State CEQA Guidelines, § 15358(a)(2)). Therefore, any physical impacts resulting from economic impacts are indirect impacts appropriately considered under CEQA. However, a lead agency need not speculate about environmental impacts (State CEQA Guidelines, § 15145).

Policy COS-7.2 would require that new discretionary oil and gas wells be located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school. Policy COS-7.7 would require that new discretionary oil wells use pipelines to convey oil and produced water and prohibit trucking of oil and produced water from new discretionary oil wells. Policy COS-7.8 would require that gases emitted from new discretionary oil and gas wells be collected and used or removed for sale or proper disposal and allow flaring or venting only in cases of emergency or for testing purposes.

In Section 4.12, "Mineral and Petroleum Resources," the draft EIR concludes that Policy COS-7.2 would result in a potentially significant impact to petroleum resources because it could preclude expansion of existing oil and gas operations and the drilling of new discretionary wells (Impact 4.12-3 starting at page 4.12-11) and that Policy COS-7.7 and Policy COS-7.8 would result in a potentially significant impact to petroleum resources in at least some parts of the plan area depending on factors such as proximity of oil and gas resources to existing major oil and gas transmission infrastructure (Impact 4.12-4 starting at page 4.12-22).

However, the specific degree to which all property owners in the unincorporated area would or would not drill new oil or gas wells as a result of implementation of the 2040 General Plan – that they otherwise would have drilled in the absence of the 2040 General Plan – would depend on numerous factors specific to individual property owners and project sites and circumstances that are not reasonably foreseeable based on the information available today. Furthermore, the commenter offers no such information. Moreover, future decisions about whether to drill new oil or gas wells are affected by several factors external to the 2040 General Plan, including State and federal government policy and national and global market conditions. Therefore, it is not possible to predict how the potential for drilling new oil and gas wells would be affected by the 2040 General Plan and

the changes in direct and secondary economic activity and associated tax revenues collected by the County. As a result, the economic impacts cannot be characterized, and any physical impacts resulting from economic impacts cannot be defined. Potential physical impacts, including to the provision of public services and facilities, are not reasonably foreseeable results of any economic impacts. Therefore, any evaluation of these impacts would be considered speculative under CEQA and the County correctly excluded such analysis from the draft EIR.

O2-11 Refer to Master Response MR-4, Section MR-4.A, “County’s Authority to Regulate Oil and Gas Development,” and Section MR-4.B, “Antiquated Permits and Takings” regarding the preemption and taking. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

O2-12 The comment describes the 2040 General Plan’s proposal to evaluate a local tax for oil and gas, and states that diminished oil and gas production resulting from such a tax could result in increased GHGs and other pollutants. For purposes of this response the County assumes that this comment is referring to Program COS-M described in the draft EIR on page 4.8-25 which states “The County shall evaluate the feasibility of establishing a local tax on oil and gas operations located in the unincorporated county.” An analysis of this program to evaluate a local tax can be found on page 4.8-44 of the draft EIR. However, the description refers to a COS-L, rather than COS-M. This section has been corrected as shown below:

Under Implementation Program COS-~~L~~M, the County would evaluate the feasibility of an excise tax on oil and gas operations, which would be intended to partially fund the County’s response to climate change impacts. These taxes would presumably be in addition to fees already collected by the County for these activities. Before an oil excise tax could be levied, it would need to be approved by both the Board of Supervisors and at least a majority vote of the electorate.

For clarification, the GHG benefits of this tax are anticipated to come from its partial funding of the County’s climate change response, which could include funding programs with GHG reduction potential. The details of this program would be determined upon evaluation by County staff and prior to consideration by the Board and the electorate.

O2-13 Refer to Master Response MR-4 regarding the findings and conclusions related to setbacks, the adequacy of the reports used to derive the findings and conclusions, antiquated permits, and vested rights and takings of private property. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- O2-14 Refer to Master Response MR-4 regarding the findings and conclusions related to the Los Angeles County report, setbacks, directional drilling, and GHG analysis. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O2-15 The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to Master Response MR-4, Section MR-4.G, "Pipeline Requirements," regarding the findings and conclusions related to pipelines. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O2-16 The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to Master Response MR-4, Section MR-4.A, "County's Authority to Regulate Oil and Gas Development," and Section MR-4.F, "Flaring," regarding preemption and the findings and conclusions related to flaring. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O2-17 The comment states that the County should consider the significant increases in GHG and other pollutants that will result if the County chooses imported oil. Fuels currently consumed within the unincorporated county for transportation and buildings contributing to GHG emissions documented in the GHG inventory are already coming from imported sources and this is not by choice or policy of the County. Rather, this reflects the choices that energy and fuel suppliers at local, state, and national level make on where to procure and market oil. Just as consumers in the county currently receive oil from imported sources, oil produced in the unincorporated county is sent to other counties, states, and countries for refinement, distribution, and ultimately consumption in a myriad of forms. The approach to GHG reduction in the 2040 General Plan, as analyzed in the draft EIR, is focused on reducing fossil fuel consumption at the end use through plans and programs. It does not delve into deep lifecycle analyses involving factors outside of the County's control. To do so would result in an impermissibly speculative analysis, as discussed in response to comment O2-6. Transitioning from fossil fuels to electricity in buildings and vehicles are examples of strategies that would reduce communitywide fuel consumption and, thus, GHG emissions. Refer to Master Response MR-4 for discussion of analyzing effects outside the study area.
- O2-18 Section 15126 of the CEQA Guidelines states that all phases of a project must be considered when evaluating its impact on the environment. Appendix G of the CEQA Guidelines indicates that noise impacts should be evaluated to determine if the project would result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Section 4.13 of the draft EIR includes oil and gas

wells and pipelines as allowed development under implementation of the 2040 General Plan, the construction of which may result in increased noise levels. The draft EIR also identifies oil supply facilities as one of several particular types of industrial uses that generate noise. The draft EIR states that construction of oil and gas wells and pipelines would be subject to County noise standards for construction noise and oil supply facilities would be subject to County noise standards for construction noise and existing noise standards for specific land uses identified in the County's Zoning Ordinance. The draft EIR concludes that the 2040 General Plan would not result in a substantial increase in stationary noise-generating uses and would implement policies to ensure noise-sensitive land uses are not exposed to noise levels above County noise standards. The analysis provided in the draft EIR is consistent with CEQA guidelines.

- O2-19 The commenter generally refers to letters submitted by other unspecified oil and gas producers and oil industry associations. This chapter includes responses to all written comments submitted to the County during the public comment period for the draft EIR.
- O2-20 Refer to Master Response MR-7 which explains in detail why recirculation of the draft EIR is not required.

From: ormaybe@aol.com <ormaybe@aol.com>
Sent: Tuesday, February 25, 2020 9:50 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Serious Environmental Concerns for Ventura County

Letter
O3

To: Susan Curtis, General Plan Update Manager
via email (susan.curtis@ventura.org)

RE: Action for Change in Changing Times Comment Letter on the *Draft Environmental Impact Report (EIR)* for the *County of Ventura Draft 2040 General Plan*

Dear Ms. Curtis,

Action for Change in Changing Times (ACCT) has reviewed portions of the draft EIR and have serious concerns with what we see as a lack of completeness, an entirely inadequate Climate Action Plan, and a *failure to recognize the role of the County as an oil and gas producer*. Lacking and needed are policies and environmental mitigations that ensure we do our share of addressing the climate crisis. On these issues the draft General Plan and the draft EIR, unfortunately, fail.

O3-1

When this process started in 2015, Ventura County did not realize that we are on the front lines of the Climate Crisis. The current 2.6 degree Celsius rise in temperature in Ventura County is clearly an indicator of further catastrophic impacts that the County must take into account. Major wildfires, droughts, and analysis of climate impacts on our County demonstrate that a significant, if not the most significant, land use issue facing this county over the next 20 years is the climate crisis and how we respond through the planning process.

We could not find a clear indication in either of these documents of the total greenhouse gas (GHG) potential produced annually in the county. In fact, the role of the industry in this county appears to be hidden in the documents. On an annual basis what is the BTU value of the liquid and gas products extracted by our oil & gas industry? What is the GHG emission from the ultimate production and use of those fossil fuels?

O3-2

On a planetary scale we need to plan now for the systematic and rapid phase out of oil and gas extraction and shift rapidly to development and use of cleaner renewable fuels -- on that the planet depends.

We cannot find a schedule within the county documents for the systematic and cost-effective winding down of this industry along with a just transition for our workers in the oil field, many of whom will be employed throughout the closing out of production and restoration of land. Others have skills that are directly transferable to clean industries of commercial and residential solar and wind energy.

O3-3

In summary, ACCT finds the current county drafts unacceptable for planning over the next twenty years with too many unanswered issue in the draft EIR.

O3-4

Respectfully,
Frank C. Bognar
10412 Boulder Ct
Ventura, CA 93004

We cannot find a schedule within the county documents for the systematic and cost-effective winding down of this industry along with a just transition for our workers in the oil field, many of whom will be employed throughout the closing out of production and restoration of land. Others have skills that are directly transferable to clean industries of commercial and residential solar and wind energy.

In summary, ACCT finds the current county drafts unacceptable for planning over the next twenty years with too many unanswered issues in the draft EIR.

Respectfully,
 Frank C. Bognar
 10412 Boulder Ct
 Ventura, CA 93004

| | |
|----------------------|------------------------------------------------------------------------------------|
| Letter O3 | Action for Change in Changing Times Frank C. Bognar February 25, 2020 |
|----------------------|------------------------------------------------------------------------------------|

O3-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

O3-2 The comment states the total greenhouse gas (GHG) potential produced annually in the unincorporated county is not evident in the 2040 General Plan or draft EIR. The comment asks about the British Thermal Unit (BTU) value of the liquid and gas products extracted from oil and gas wells countywide on an annual basis, as well as the GHG emissions from the ultimate production and use of those fossil fuels.

Data from oil and gas production for the GHG inventory was sourced from the California Air Resources Board’s Statewide 2016 GHG inventory. This inventory calculates GHG emissions for fuel products using high heat values approved for the U.S. Environmental Protection Agency’s Mandatory Greenhouse Gas Reporting Program (CARB 2019a). The values used for the fuels analyzed as part of the County’s GHG inventory are: Natural Gas = 1026 million BTU (MMBtu)/standard cubic foot, Distillate = 0.139 MMBtu/gallon, Residual Fuel Oil = 0.140 MMBtu/gallon (EPA 2020). The disposition of fossil fuels produced within the unincorporated county includes a myriad of pathways for refinement, transportation, and end use occurring outside of the county. The GHG inventory is focused on local end use consumption of fossil fuels in accordance with the ICLEI protocol (ICLEI 2013).

O3-3 Refer to Master Response MR-4, Section MR-4.J, “Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations),” regarding the findings and conclusions related to phasing out the oil and gas industry.

O3-4 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

Action for Change in Changing Times
(ACCT)
Cindy Piester
177 Jordan Ave.
Ventura, CA. 93001
February 27, 2020

Letter
O4

To: Susan Curtis, General Plan Update Manager
via email (susan.curtis@ventura.org)

RE: Action for Change in Changing Times Comment Letter on the *Draft Environmental Impact Report (EIR)* for the *County of Ventura Draft 2040 General Plan*

Dear Ms. Curtis,

Action for Change in Changing Times (ACCT) has reviewed portions of the draft EIR and have serious concerns with what we see as a lack of completeness, an entirely inadequate Climate Action Plan, and a *failure to recognize the role of the County in the production of oil and gas*. Lacking and needed are policies and environmental mitigations that ensure we do our share of addressing the climate crisis. On these issues the draft General Plan and the draft EIR, unfortunately, fail.

O4-1

When this process started in 2015, Ventura County did not realize that we are on the front lines of the Climate Crisis. The current 2.6 degree Celsius rise above pre-industrial levels, major wildfires, droughts and analysis of climate impacts on our County demonstrate that a significant, if not the most significant, land use issue facing this county over the next 20 years is the climate crisis and how we respond through the planning process.

We could not find a clear indication in either of these documents of the total greenhouse gas (GHG) potential produced annually in the county. In fact, the role of the industry in this county appears to be missing in the documents. On an annual basis what is the BTU value of the liquid and gas products extracted by our oil & gas industry? What is the GHG emission from the ultimate production and use of those fossil fuels?

O4-2

On a planetary scale we need to plan now for the systematic and rapid phase out of oil and gas extraction and shift rapidly to development and use of cleaner renewable fuels -- on that the planet depends.

We cannot find a schedule within the county documents for the systematic and cost-effective winding down of this industry along with a just transition for our workers in the oil field, many of whom will be employed throughout the closing out of production and restoration of land. Others have skills that are directly transferable to clean industries of commercial and residential solar and wind energy.

O4-3

In summary, ACCT finds the current county drafts unacceptable for planning over the next twenty years with too many unanswered issues in the draft EIR.

O4-4

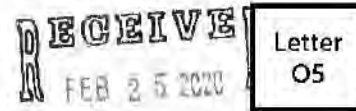
We, the undersigned residents of Ventura County, respectfully call for the above concerns to be fully addressed.

Cindy Piester
Carin Wofford
Jabbar Wofford
Leslie Purcell
Margo Davis
Gail Hodgson
Alan Hodgson

Carol Vasecky
Alex Uvari
Marisa Sanchez
Arturo Guido
Frank Bognar
Geoffrey Darrin
Wendy Lofland
Roslyn Jean Scheuerman
Paul Benevidez
Nissa Benevidez
Ivsar Marina
Andrew Steel
Nancy Genevieve Oatway
Nicholas Oatway
Rev. Dr. Audrey Wise Vincent
Martin Jones
Susan Shamroy
Margaret Wilson
Nikki G. Alexander
Edward G. Alexander
Dianne Kenny
Judith Cuevas
Ray Cuevas
Gillian Dale
Nancy Shuman
Mark Shuman
Amelia Aparicio
Jeremy Kersch
Debra Myrent
Nick Corrett
Janet Murphy
Heidi Rosenfield
Sheila Williams
Lucy Duffy
Frank Peterson
Heidi Whelan
Sandy Beckner
Laura Schneider
Betsy Shipley
Gerald Schwanke
Angela Grismier
Julie Shaw
Diana Cooley
Pam Holley-Wilcox
Karen Trowbridge
Beverly Brovsky
Arnett Smithson

| | |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Letter O4 | <p>Action for Change in Changing Times Cindy Piester, Carin Wofford, Jabbar Wofford, Leslie Purcell, Margo Davis, Gail Hodgson, Alan Hodgson, Carol Vasecky, Alex Uvari, Marisa Sanchez, Arturo Guido, Frank Bogner, Geoffrey Dann, Wendy Lofland, Roslyn Jean Scheuerman, Paul Benevidez, Nissa Benevidez, Ivsar Marina, Andrew Steel, Nancy Genevieve Oatway, Nicholas Oatway, Rev. Dr. Audrey Wise Vincent, Martin Jones, Susan Shamroy, Margaret Wilson, Nikki G. Alexander, Edward G. Alexander, Dianne Kenny, Judith Cuevas, Ray Cuevas, Gillian Dale, Nancy Shuman, Mark Shuman, Amelia Aparicio, Jeremy Kersch, Debra Myrent, Nick Corrett, Janet Murphy, Heidi Rosenfield, Sheila Williams, Lucy Duffy, Frank Peterson, Heidi Whelan, Sandy Beckner, Laura Schneider, Betsy Shipley, Gerald Schwanke, Angela Grismer, Julie Shaw, Diana Cooley, Pam Holley-Wilcox, Karen Trowbridge, Beverly Brovsky, and Arnett Smithson February 27, 2020</p> |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- O4-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.
- O4-2 Refer to response to comment O3-2, which pertains to the quantification of GHG emissions from oil and gas.
- O4-3 Refer to Master Response MR-4, Section MR-4.J, “Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations),” regarding the proposal to phase out oil and gas production in the unincorporated county.
- O4-4 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.



BY:

February 25, 2020

VIA HAND DELIVERY

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Re: Comments on Ventura County 2040 General Plan Draft Environmental Report (State Clearinghouse No. #2019011026)

Dear Ms. Curtis:

On behalf of Aera Energy, LLC ("Aera"), thank you for the opportunity to review and comment on the Draft Environmental Impact Report prepared for the Ventura County 2040 General Plan Update ("DEIR"). Unfortunately, after reviewing the DEIR, we find it deficient in myriad ways and we respectfully request that the DEIR be significantly revised and recirculated, as required by the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq) ("CEQA") and the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15000 et seq.) ("CEQA Guidelines"). Given the DEIR's failure as an informational disclosure document and its failure to identify and impose all feasible mitigation measures, the DEIR, in its current form, cannot support approval of the County's proposed update to its current General Plan ("2040 General Plan"). The DEIR's legal deficiencies must be cured and it must be recirculated prior to any approval of the 2040 General Plan.

05-1

Aera is the largest onshore oil and gas producer in the County of Ventura ("County"), with oil and gas operations covering approximately 4,300 acres located largely in unincorporated areas northwest of the City of Ventura. Aera and its forerunner companies have been actively producing crude oil in the County since the 1920s. Aera is actively involved in the local County community, and is a longtime member of both the Chamber of Commerce and the County Economic Development Association. As a mineral resource owner, mineral resource lessee and a production operator in the County, Aera will be directly and substantially affected by the adequacy of environmental review undertaken in support of the 2040 General Plan as well as implementation of the 2040 General Plan.

05-2

Aera Energy LLC • 10000 Ming Avenue • P.O. Box 11164 • Bakersfield, CA 93389-1164 • (661) 666-5000 Fax (661) 665-5065

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager
 February 25, 2020
 Page 2

I. CEQA STANDARD OF REVIEW

Public agency determinations as to the cause, effect, and significance of environmental impacts must be supported by substantial evidence. (Pub. Resources Code, § 21168.) A public agency abuses its discretion and fails to proceed in the manner required by law when its actions or decisions do not substantially comply with the requirements of CEQA. (Pub. Resources Code, §§ 21168, 21168.5.) An agency’s application of an erroneous legal standard in making a CEQA determination also constitutes a failure to proceed as required by law. (*City of San Diego v. Board of Trustees of Cal. State University* (2015) 61 Cal.4th 945, 956.) Whether an environmental impact report (“EIR”) fails to include the information necessary for an adequate analysis of an environmental issue is a question of law, and when reviewed by the courts, the courts do not defer to an agency’s determinations. (*Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102 [“whether an EIR is sufficient as an informational document is a question of law subject to independent review by the courts”].) Failure to comply with the basic substantive requirements of CEQA is necessarily prejudicial error, requiring the decertification of any EIR and vacation of any project approvals adopted in reliance upon the same. (*North Coast Rivers Alliance v. Kawamura* (2015) 243 Cal.App.4th 647, 671.)

While program EIRs are necessarily broader in scope than project-level EIRs, they must still adhere to CEQA’s requirements—significance determinations must still be supported by substantial evidence, program EIRs must still apply the correct legal standard to CEQA determinations, and program EIRs must still include all information necessary for an adequate analysis of environmental effects. (*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 431.) Use of a program EIR does not permit a lead agency to defer an analysis of reasonably foreseeable significant environmental impacts to a later stage of review to avoid addressing those impacts in the program EIR itself. (State CEQA Guidelines, § 15152(b).) “The ‘foremost principle’ in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.” (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 109.)

Finally, where significant new information is added to an EIR after notice of public review has been given, but before final certification of the EIR, the lead agency must issue a new notice and recirculate the EIR for additional comments and consultation. (Pub. Resources Code, § 21092.1; State CEQA Guidelines, § 15088.5.) Recirculation is required when the addition of new information deprives the public of a meaningful opportunity to comment on substantial adverse project impacts or feasible mitigation measures or alternatives. (State CEQA Guidelines, § 15088.5(a); *Laurel Heights Improvement Association v. Regents of University of California* (1993) 6 Cal.4th 1112, 1130.)

O5-3

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager
February 25, 2020
Page 3

II. GENERAL COMMENTS

A. Improper Piecemealing and Project Segmentation.

As discussed in additional detail below, the DEIR improperly segments its analysis of the County's 2040 General Plan from the pending update of the County Housing Element, and also improperly piecemeals analysis of the 2040 General Plan's implementation actions. CEQA makes it clear that public agencies must analyze the "whole of an action" that may result in a direct or reasonably foreseeable indirect impact. (State CEQA Guidelines, § 15378(a); see also *Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora* (2007) 155 Cal.App.4th 1214.) A public agency may not divide a single project into smaller individual subprojects to avoid responsibility for considering the environmental impact of the project as a whole. (*Orinda Association v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171.)

As the County is aware, the California Department of Housing and Community Development ("HCD") together with the Southern California Association of Governments ("SCAG") will issue a new Regional Housing Needs Allocation ("RHNA") for the County and the cities within the County later this year. The new RHNA will increase the housing needs allocation for the County significantly. As a result, almost every element of the General Plan, as amended, will be out of date once the new numbers are finalized. Land use designations established by the 2040 General Plan will need to be revised nearly immediately to accommodate the RHNA, which will have ripple effects through the DEIR's analyses of air quality emissions, greenhouse gas emissions, and traffic. For example, ignoring the imminent RHNA means that the trip and vehicle miles traveled estimates underpinning the DEIR's traffic analysis do not reflect the additional traffic created by the RHNA, both within the unincorporated areas of the County and within the region at large.

Similarly, beyond the RHNA, the Governor and the State Legislature have advanced significant new legislation intended to increase housing supply opportunities and facilitate the approval of new development by streamlining the housing development process and providing for limited review of developments that otherwise comply with local regulations. This recently adopted legislation and pending legislation will result in an increase in the production of new housing, potentially even beyond the RHNA projections. Thus, the County must table consideration of its 2040 General Plan until the County is in a position to update its Housing Element as part of that undertaking.

In addition to improperly engaging in segmentation in the context of the RHNA, the DEIR ignores the reasonably foreseeable implementation actions that will follow adoption of the 2040 General Plan, including, but not limited to, the adoption of a Zoning Code Update. While the DEIR generically describes the relationship between general

05-4

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager
 February 25, 2020
 Page 4

plans and zoning codes, it does not explain how the County's Zoning Code will be updated as a result of adopting the 2040 General Plan. Required zoning code updates resulting from the 2040 General Plan must be analyzed now, as part of this DEIR. Excluding reasonably foreseeable, let alone required, implementation actions from the DEIR's analysis constitutes a prejudicial error. (*McQueen v. Board of Directors* (1988) 202 Cal.App.3d 1136, 1144.)

O5-4
 cont.

To address both of these improper segmentation issues, the Project Description for the 2040 General Plan should be revised to be complete, and the DEIR analyses should be revised to assess and disclose the impacts of the entire "whole" of the 2040 General Plan.

B. Impermissibly Vague Project Description.

EIR project descriptions must be accurate, stable, consistent, complete, include all components of a proposed project, and include all foreseeable future activities that are consequences of the project to be approved. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199.) As described more fully below, the DEIR's Project Description does not meet this standard. In fact, it fails to even identify the location and buildout of the 15 new land use designations.¹ Furthermore, policies established by the General Plan are not identified or described with any level of specificity. The complete failure to provide a project description consistent with CEQA's procedural mandates unfortunately undermines each and every analysis contained within the DEIR. As such, the Project Description must be revised to include these details, the DEIR's impact analyses must likewise be revised and the DEIR must be recirculated.

O5-5

C. Failure To Provide Adequately Detailed Analyses

As more fully discussed below, many sections of the DEIR include surprisingly little technical analysis or analysis of the feasibility of mitigation measures. The DEIR purposefully downplays the effect of numerous proposed mitigation measures and routinely defaults to a finding of significant and unavoidable impacts without any real analysis showing that the County considered all feasible mitigation measures and adequately analyzed whether impacts could be reduced. This, in effect, defers real analysis to future project level EIRs and is inconsistent with the goals of a program level EIR, which is to limit the need for future environmental analysis to the extent reasonably possible. (See CEQA Guidelines, § 15152(b); see also *Vineyard Area Citizens, supra*, 50 Cal.4th at p. 431 [program EIRs must still meet CEQA's mandates].)

O5-6

¹ We also note that in some places, the DEIR states that the 2040 GPU only establishes 13 new land use designations, as opposed to 15. This inconsistency further underscores the DEIR's failure to provide an accurate and stable project description, consistent with CEQA's mandates. (Compare, e.g., p. 4.11-18 [describing 13 new land use designations] to p. 2-6 [describing 15 new land use designations].)

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager
February 25, 2020
Page 5

D. The DEIR Presumes The Imposition of Goals, Policies, Programs and Mitigation Measures That Are Legally Infeasible

Finally, as will also be more fully explored below, several goals and policies discussed in the DEIR and several mitigation measures proposed in the DEIR suffer from a variety of legal infirmities. Several goals and policies, if imposed, impair vested property rights and effectuate a taking under federal and state constitutional standards. Others are preempted by superior state law.

05-7

III. DETAILED COMMENTS

Aera's specific and detailed comments on the DEIR's individual chapters and sections are set forth below.

A. Introduction/Executive Summary

Page 1-2: The DEIR makes generic significant and unavoidable impact findings that should not be relied upon to permit future streamlining. The DEIR explains that subsequent development activities will be evaluated to determine whether they will result in "effects not within the scope of the program DEIR, including new or more severe significant impacts than identified in the project DEIR." Where subsequent activities will not result in more severe impacts, "additional environmental documents may not be required." Yet the DEIR vaguely claims myriad significant and unavoidable impacts, which could lead to later claims that projects "fall within the scope" of the program EIR because they too will result in significant impacts. This provides an avenue for the County to avoid project-level analysis, based on general and vague significant and unavoidable impact findings, unsupported by substantial evidence, in the DEIR. If the 2040 General Plan DEIR is truly intended to provide future streamlining for environmental impacts at the project level, the analyses must be expanded, all feasible mitigation measures identified, and determinations revised to rely upon and cite to substantial evidence. Such revisions require recirculation. (State CEQA Guidelines, § 15088.5.)

05-8

Page 1-4: The DEIR includes a biased and incomplete description of "areas of known controversy." The DEIR states that the key areas of concern identified during the DEIR Notice Of Preparation ("NOP") process "focused on two primary areas of concern: (1) climate change and greenhouse gases; and (2) the effects of continued oil and gas extraction...." But of the comments included in Appendix A, fewer than half focused on these issues exclusively.

05-9

Page 1-5: The DEIR presents an incomplete list of responsible and trustee agencies. The DEIR does not identify the California Geologic Energy Management

05-10

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager
 February 25, 2020
 Page 6

Division of the California Department of Conservation (“CalGEM”) or the California Coastal Commission as responsible agencies. As explained above, the imminent Housing Element update should also be provided as part of the 2040 General Plan, and as a result, HCD should also be identified as a responsible agency. Trustee agencies identified in the DEIR should at least include the State Lands Commission, the California Department of Fish and Wildlife, the California Department of Parks and Recreation, and the Ventura County Air Pollution Control District, as each of these agencies has jurisdiction over resources affected by the 2040 General Plan. (State CEQA Guidelines, §§ 15381, 15386.) Identification of proper responsible and trustee agencies affect whether an EIR undergoes the required and proper consultation processes. Failure to do so results in a failure to proceed in the manner required by law. (Pub. Resources Code, §§ 21168, 21168.5.)

O5-10
 cont.

Page 2-11: The DEIR relies on erroneous growth projections. As discussed above, the growth projections identified in the DEIR will be at odds with the imminently forthcoming RHNA housing numbers assigned to the County and the region (the County will be obligated to produce *more* housing stock). As a result, the assumptions underpinning the DEIR’s analyses will be inaccurate almost immediately. This is particularly concerning given that the DEIR’s assumptions will be inaccurate because they *underestimate* growth from 2020 through 2040.

O5-11

Page 2-12: Setting. The cross-reference to the Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020 (hereinafter, “Background Report”) makes following the setting discussion in the DEIR cumbersome. A summary of the Background Report’s setting discussion should be included in the DEIR.

O5-12

Page 2-14: Areas of Controversy. Oil and gas production and the secondary effects of continued operations is highlighted as an area of controversy for many of the sections of the DEIR. However, many of the alleged controversial effects are the result of the County policies proposed to require the use of pipelines in oil and gas operations and not the existing operations themselves.

O5-13

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager
February 25, 2020
Page 7

B. Project Description

Page 3-1: The DEIR's Project Description impermissibly relies on a separate 1,000+ page appendix. EIRs must include an accurate, stable, and consistent description of the Project. (State CEQA Guidelines, § 15124.) Here, the 2040 General Plan provides the planning and development blueprint for the entirety of the County – yet the DEIR's Project Description is a scant 23 pages. For any real details, a reader is forced to parse through the more than 1,000 page Background Report, or the draft 2040 General Plan itself. But an EIR cannot rely on information that is not either included in the document or described in sufficient detail. (*Vineyard Area Citizens, supra*, 40 Cal.4th at p. 442.). An EIR should be written in a way that readers are not forced "to sift through obscure minutiae or appendices" to find important components of the project or analysis. (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 659.) Instead, CEQA contemplates that referenced documents be summarized in the text of the EIR.

05-14

Pages 3-4 through 20: The DEIR's Project Description is impermissibly vague. The DEIR's description of the 2040 General Plan is ambiguous and vague on a number of key points. Without these details, it is impossible to adequately assess the 2040 General Plan's potentially significant impacts. For example:

- The Project Description alternatively explains that the 2040 General Plan establishes either 13 or 15 new land use designations. (Compare, e.g., p. 4.11-18 [describing 13 new land use designations] to p. 2-6 [describing 15 new land use designations].)
- It is unclear to what extent these new designations will allow for more development than is presently allowed under the General Plan and Zoning Code. The DEIR states on the one hand that these designations "would be consistent with land use densities/intensities allowed under the current (2018) zoning designations for each affected parcel," but then, on the other hand, explains that the new designations will permit "relatively higher intensity residential, commercial, mixed use, and industrial land uses." (Compare pp. 3-4, 3-19, 4-2 [2040 General Plan will permit higher intensity development] with p. 3-4 [2040 General Plan will permit uses consistent with current zoning].)
- The Project Description explains that the 2040 General Plan establishes a wholly new land use designation for parks and recreational facilities, not currently permitted by the Zoning Code, but then also states that this designation will not be assigned to any specific parcel. (See p. 3-5.) Will this use be assigned to a specific parcel in the future? Where? When?

05-15

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager
 February 25, 2020
 Page 8

- These details are required now in this DEIR to analyze the potential impacts of this new designation.

| 05-15
cont.
- The Project Description vaguely references new policies and states, without support, that they are consistent with the County’s existing Guidelines for Orderly Development (“GFOD”) and Save Open Space & Agricultural Resources (“SOAR”) initiative. Yet, no details at all are provided to show that this is so. Without these details, there is no way to confirm whether these new policies will result in inconsistencies with GFOD and SOAR such that significant environmental impacts may occur.

| 05-16
 - The Project Description contains only a “brief summary” of each element of the proposed 2040 General Plan. Yet these descriptions are wholly generic. There is no explanation as to what each element will actually do to either permit or prohibit development, or protect or impact resources. There is no hint of the types of goals, policies, and programs that are established in each element, or what is changing from the current General Plan and current Zoning Code. The Project Description should—at the very least—identify policy highlights and ordinances that the 2040 General Plan directs County decision makers to draft and adopt, and describe the type and extent of physical development that will likely be constructed under the 2040 General Plan. These are basic details necessary to assess the environmental impacts of the 2040 General Plan’s adoption.

| 05-17
 - The Project Description completely omits any estimate of potential and likely buildout. There is no way for a reader to determine how many acres of development, how many dwelling units, or how many square feet of non-residential development is anticipated under the 2040 General Plan. Instead, the Project Description contains only vague and inconsistent statements about the 2040 General Plan permitting “relatively higher intensity” residential, commercial, mixed use and industrial land use designations. (See p. 3-19.) Yet details such as where this higher intensity development will occur, or how much higher intensity the development will be, is wholly missing. Without this information, how can the impacts of such development be analyzed in the DEIR?

| 05-18
 - The Project Description fails to even allude to the County’s Local Coastal Program (“LCP”), or describe whether and how the 2040 General Plan affects the LCP, a key component of the County’s long-range land use planning.

| 05-19
- Page 3-5: Preparing a DEIR for the 2040 General Plan while excluding any and all completely foreseeable implementation actions, such as a zoning code**

| 05-20

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update, results in improper piecemealing and project segmentation. The DEIR generically describes the relationship between general plans and zoning codes, but does not explain whether the County's Zoning Code must be amended as a result of the GPU, and if so, when that will occur. In fact, the DEIR expressly states that at least one new zoning code designation "would be established" "separate from the General Plan Update project as part of the 2040 General Plan's implementation." Required zoning code updates resulting from approval of this Project must be analyzed now, as part of this DEIR. Excluding reasonably foreseeable (let alone required) implementation actions from analysis in this DEIR is a procedural error. (See *McQueen v. Board of Directors*, *supra*, 202 Cal.App.3d at p. 1144.)

O5-20
cont.

Pages 3-6 and 3-11: Preparing a DEIR for the 2040 General Plan before the Housing Element is completed results in improper piecemealing and project segmentation. The DEIR states that draft RHNA numbers will be released in February 2020, which is during the public review period for the DEIR. Accommodation of the County's RHNA could lead to the re-designation of one or several parcels within the County, or the revision/deletion/addition of general plan goals and policies. Therefore, the RHNA's accommodation should be considered as part of this project and analyzed in this DEIR. In fact, on page 3-6, the DEIR even expressly explains that the GPU and the RHNA/Housing Element are two parts of the same land use "alternative" identified through the community outreach for this 2040 General Plan. Separating the 2040 General Plan from the RHNA/Housing Element results in an incomplete and inaccurate project description. Had the 2040 General Plan and the RHNA/Housing Element been analyzed together, the analysis might show that certain aspects of the 2040 General Plan are infeasible, or will have greater impacts than are described in this DEIR. This is precisely why CEQA prohibits dividing a single project into smaller individual subprojects to avoid considering the total environmental impacts of the project as a whole. (State CEQA Guidelines, § 15378(a); see also *Orinda Association v. Board of Supervisors*, *supra*, 182 Cal.App.3d at p. 1171.)

O5-21

The DEIR's use of an Housing Element "placeholder" does not remedy, and in fact just further highlights the error of, improperly segmenting out the impending Housing Element Update. As explained above, the County is well aware that RHNA allocation increase will significantly affect most of the other elements of the draft 2040 General Plan and its environmental analysis. Including a "placeholder" element results in a meaningless and inaccurate Project Description and further undercuts the DEIR's ability to adequately analyze environmental impacts.

C. Environmental Setting

Pages 4-1 and 4-2: An EIR must describe existing environmental conditions in the vicinity of the proposed project. (State CEQA Guidelines, § 15125.) The DEIR's description of the environmental setting and baseline is inadequate on myriad grounds.

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First, it impermissibly buries all description of the existing environmental setting in a 1,000+ page appendix, in direct contravention of CEQA's mandates. CEQA requires that the data in an EIR be presented in a manner that adequately informs the public and decision makers, and forcing readers "to sift through obscure minutiae and appendices" to find out what environmental baseline the DEIR assumes and applies is a failure to proceed in the manner required by law. (*San Joaquin Raptor Rescue Center v. County of Merced, supra*, 149 Cal.App.4th 645, 659.) Instead of distilling the information underpinning the entirety of the DEIR's technical analyses, the DEIR refers its readers "to the Background Report for all other setting information." Yet the Background Report is more than 1,000 pages long, not including its own appendices, and is not organized in a way that coincides with the chapters of the DEIR. Even where an EIR relies on underlying data and analysis in an EIR appendix, the body of the EIR itself must at least include a salient summary of the key issues. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

05-22
 cont.

Second, the DEIR makes vague reference to an assumed growth rate, but provides no substantive evidence explaining why the assumed growth rate is the most appropriate and reasonable assumption to underpin the DEIR's analyses. (See p. 4-1.) Instead, the DEIR states only that the growth rate was chosen by direction of the County Board of Supervisors – but this does not constitute substantial evidence. (See State CEQA Guidelines, § 15384 [substantial evidence includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts].)

Similarly, the DEIR states that the DEIR's analyses are "based on buildout of the plan area" but nowhere in the DEIR's Project Description does it actually identify what buildout would be. Not only is the amount of buildout unclear, but the timing of buildout is unclear as well. The DEIR goes on to say that this unspecified buildout "is not anticipated to occur within the planning horizon" but then also does not explain what is anticipated to occur within the planning horizon. By completely failing to identify the key assumptions underpinning the environmental analysis, it is impossible for a reader to assess whether the DEIR's conclusions are sound. The DEIR thus fails as an informational document.

05-23

D. Aesthetics

Pages 4.1-1, 4.1-3 and 4.1-10: The analysis omits relevant aspects of the regulatory setting. The aesthetics analysis completely omits any reference to federal and state regulations that affect aesthetic resources. Similarly, the discussion of the local regulatory setting focuses only on lighting regulations. While some of the missing information is included in the Background Report, a reader cannot be expected to hunt for information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.) At the very least, the regulatory setting must be

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expanded to identify and describe the National Scenic Byways Program, the California Scenic Highway Program, state historic preservation programs, the California Building Code, local development standards, regulation of development on hillsides, regulation of historic buildings, guidelines and standards relating to architecture, and regulation of signs beyond illumination. Further, even including the buried regulatory discussion in the Background Report, there is no discussion of historic preservation policies and programs, architectural design, grading ordinances, tree protection, or other regulatory schemes that have significant relation to aesthetics. Omitting any discussion of these types of regulations, failing to analyze whether the proposed project is consistent with them, and failing to disclose whether any inconsistencies will result in potentially significant impacts, results in an inadequate aesthetics analysis.

05-24
cont.

Page 4.1-12: The DEIR fails to include any details of the existing environmental setting, and even the Background Report appended to the DEIR fails to adequately describe existing conditions. The DEIR states that the Background Report appended to the DEIR “describes the environmental setting for the purpose of this evaluation.” For all the reasons articulated above, the DEIR must summarize the key aspects of the environmental setting in the body of the EIR. However, even the existing conditions description in the Background Report is inadequate. There is no discussion of the existing visual character – only general references to scenic resources. This may be because the DEIR does not actually include any analysis of impacts to existing visual character, as discussed below, however this is salient information relating to existing conditions and baseline. Visual character includes not only natural resources, but urban and recreational features, including roads, utilities, structures, oil and gas facilities, and other results of human activities. Instead, the Background Report reads only as a generic list of existing visual resources, with no discussion of visual quality, view shed, aesthetic values, or viewer sensitivity – all key to understanding the potential for aesthetic impacts resulting from the 2040 General Plan.

05-25

More specifically, there is no discussion of existing oil and gas facilities, or their relationship to scenic resources. DEIR page 4.1-1 expressly identifies aesthetics relating to oil and gas facilities as the subject of comments received during the NOP period, yet there is no discussion of those issues, or the existing setting relevant to those issues, in the DEIR or Background Report.

05-26

Page 4.1-13: The DEIR does not include any analysis of impacts to existing visual character. The DEIR identifies four thresholds for determining impacts to aesthetic resources, but these thresholds do not align with, and omit, thresholds included in the most recent version of the Appendix G checklist, which the County seems to have never adopted, as required by State CEQA Guidelines § 15022, subdivision (c). Appendix G threshold I(c) requires analysis of whether the project would, “in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings?” Yet the DEIR wholly fails to address any

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changes in existing visual character, failing to disclose any such impacts (or lack thereof) to the public or decision makers.

05-27
 cont.

E. Agriculture and Forestry Resources

Page 4.2-4: The Thresholds are over inclusive. The threshold includes Farmland of Local Importance which is not among the types of farmland specified in Appendix G of the CEQA Guidelines as requiring mitigation. The DEIR provides no analysis or justification for exceeding the criteria in Appendix G. The addition of this category will require the creation of additional conservation easements as “mitigation” for the loss of this category of farmland that may or may not be available as mitigation and may impact the ability of the County to meet other objectives such as those that may be included in the update of the County’s Housing Element. How much of this category of farmland is located outside of the SOAR’s growth limits? If it is significant, requiring the establishment of conservation easements over this land or requiring mitigation for its conversion may well adversely impact the ability of the County to meet its housing obligations. There is no analysis of the feasibility of this measure as required by CEQA. Accordingly, this proposed measure is illusory as there is no substantial evidence to support its feasibility. See *Cleveland Nat’l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

05-28

Page 4.2-16: Mitigation Measure AG-1 is vague and unenforceable. There is no analysis of how discretionary development can be conditioned to avoid direct loss of Important Farmland. See *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 262, 261. This measure too is illusory and not supported by substantial evidence as required by CEQA.

05-29

Page 4.2-16: Mitigation Measure AG-2 lacks substantial evidence of its feasibility. This mitigation measure provides for the use of off-site agricultural conservation easements at a 2-1 ratio as mitigation for the loss of the categorized agricultural land. The use of off-site conservation easements over existing agricultural land has been broadly criticized since it does not result in any replacement of lost farmland. The easements would only apply to other existing agricultural lands. There is no analysis of the feasibility of this measure, which is doubtful since the owners of the other agricultural lands will have to agree to the imposition of the conservation easements and there is no assurance that there will be sufficient willing owners of agricultural lands to agree to these restrictions at the level required. There is no evaluation of the existence of other agricultural lands that might be available for the acquisition of conservation easements. Accordingly, this proposed measure is illusory as there is no substantial evidence to support its feasibility. See *Cleveland Nat’l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

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F. Air Quality

Page 4.3-3: It is unclear how much construction is anticipated as a result of the 2040 General Plan buildout. The DEIR states that “because construction associated with buildout under the 2040 General Plan would generate temporary criteria pollutant emissions, primarily due to the operation of construction equipment... emissions have been estimated in this analysis, and are based on the anticipated amount of development under buildout the [sic] 2040 General Plan.” But, as discussed above regarding the Project Description, there is no statement of what buildout would actually be. How many new dwelling units, how many square feet of new non-residential uses, and where will these be located? These are all details fundamental to the DEIR’s analysis of air quality impacts and their omission makes it impossible for a reader to assess the DEIR’s impact determinations.

O5-31

Page 4.3-3: There is no substantial evidence supporting the County’s underlying growth assumptions. The DEIR states that “[a]lthough the exact timing of construction activity over this period is unknown, for the purposes of modeling, it was assumed that development would occur gradually in equal annual increments over this time period.” However, no explanation is provided for why this is the most reasonable assumption upon which to pin the analysis. (See State CEQA Guidelines, § 15384(b) [substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts].) Growth typically does not occur gradually, in equal measure over a ten year period. There are likely to be high and low years of construction and development. By assuming a straight linear projection, the analysis ignores true construction impacts (i.e. maximum daily emissions) associated with development in “boom” years. As a result, construction generated air quality impacts are likely undercounted.

O5-32

Page 4.3-4: The buildout numbers underlying the air quality analysis are nowhere to be found in the DEIR’s Project Description. The DEIR’s air quality analysis assumes construction of 1,125 single family dwelling units, 156 multifamily dwelling units, and specific square footage numbers for several other non-residential land uses. Yet these buildout numbers are not discussed anywhere within the DEIR’s Project Description and will soon be out of date when the new RHNA allocations are adopted. A reader cannot be expected to search deep within the DEIR’s analyses to determine the basic facts of what is proposed— i.e., how many dwelling units and how much square footage of development is likely to occur under the 2040 General Plan. Because there are no additional details provided as to where these buildout numbers come from, it is also unclear whether these numbers represent the maximums allowable under the 2040 General Plan, or whether the County is assuming some smaller subset is what is actually

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likely to be constructed.² Because a reader cannot determine what exactly is being analyzed and why, the significance determinations of the air quality analysis are rendered meaningless. (See *Napa Citizens for Honest Govt. v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 359 [at the very least, an EIR must contain an explanation of the reasoning supporting the EIR’s impact findings, and the supporting evidence].)

05-33
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Page 4.3-8: The air quality impacts analysis improperly relies on implementation of proposed General Plan policies that are infeasible or preempted. The air quality analysis relies upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include, but may not be limited to, proposed policies COS-7.1, 7.3, 7.4, 7.7, and 7.8. If an impact’s significance determination is based upon the application of policies or programs that will not actually come to pass, the impact analysis is inherently flawed. (See, e.g., *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [mitigation measures must actually be enforceable].)

05-34

Pages 4.3-13 and 4.3-15: The DEIR fails to identify or apply any significance threshold for PM10, a criteria pollutant for which the air basin is in nonattainment status. The DEIR states that construction emissions could contribute to the County’s existing nonattainment condition for PM10, and as a result, could cause adverse health impacts due to increased exposure to PM10. Yet, pursuant to DEIR Table 4.3-2, the County does not identify any significance threshold for PM10, as required by CEQA. There is no way for a reader to know whether the 20.4 lb/day estimated construction emissions of PM10 are significant when compared to an objective bright-line threshold. Even though the DEIR goes on to assume that the 20.4 lb/day of PM10 emissions are potentially significant, without a threshold, a reader has no way to understand how significant the impact could be, or the order of magnitude of the emissions. (See *Laurel Heights Improvement Association v. Regents of University of California* (1988) 47 Cal.3d 376, 404 [a bare conclusion without an explanation of its factual and analytical basis is not a sufficient analysis of an environmental impact]; see also *San Francisco Baykeeper, Inc. v. State Lands Commission* (2015) 242 Cal.App.4th 202, 227 [CEQA requires agencies to make a policy judgment about how to distinguish adverse impacts deemed significant from those deemed not significant].)

05-35

² The text on page 4.3-4 also explains that some information “specific to the 2040 General Plan” was available and thus inputted into the air quality emissions modeling, and then also states that where specific information was not available, CalEEMod defaults were used. The text reads: “See Table 4.3-1, below, for a full list of land use assumptions used for the modeling.” Yet the only “assumptions” presented in Table 4.3-1 are the assumed dwelling units and square footages – which, as described above, are presented without any context. None of these seem to be defaults or information “specific to the 2040 General Plan.” Again, this is just another example of how the DEIR is vague and inconsistent, and it is impossible for a reader to decipher what assumptions underpin the impacts analysis and why.

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Further, the issue of the missing PM10 significance threshold is compounded by the DEIR's proposed Mitigation Measure AQ-1b, which adds Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices, to the 2040 General Plan. This program requires "applicants for future discretionary development projects that would generate construction-related emissions that exceed applicable thresholds" include certain best management practices ("BMPs"). However, if there is no applicable threshold for PM10, how will the County, or applicants, determine when BMPs to reduce PM10 are required? The same comment applies to Mitigation Measure AQ-2a, which adds new policy HAZ-X, which states, "The County shall ensure that discretionary development which will generate fugitive dust emissions during construction activities will, to the extent feasible, incorporate BMPs that reduce emissions to be less than applicable thresholds." This is nonsensical, considering that the DEIR expressly states that there is no applicable threshold for PM10 or PM2.5 (i.e. fugitive dust). Again, the same comment also applies to Mitigation Measure AQ-2b, which adds new implementation program HAZ-X, which also establishes certain criteria to be applied when fugitive dust emissions "exceed the applicable thresholds." Without any identified threshold, these mitigation measures are wholly ineffective. (See *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1168 [mitigation measures' efficacy must be apparent and supported by substantial evidence].)

05-35
 cont.

Page 4.3-15: Several of the air quality impact mitigation measures are limited to only "the extent feasible" which severely limits their effectiveness. All mitigation measures identified under DEIR Impact 4.3-2 are only applicable "to the extent feasible." Including this caveat makes each measure ineffective. Mitigation measures must be concrete and enforceable, and the addition of "to the extent feasible" language makes these commitments meaningless. (*Federation of Hillside & Canyon Associations v. City of L.A.* (2000) 83 Cal.App.4th 1252, 1260 [mitigation measures must not be remote or speculative].)

05-36

Page 4.3-15: Implementation Program HAZ-X relating to fugitive dust is duplicative. We request that the first two bullet points be revised to reduce duplication.

05-37

Page 4.3-17: The DEIR fails to apply a threshold to the mitigated daily emissions associated with PM 10 and PM2.5, fails to apply all feasible mitigation measures, and adds so many caveats to its final significance determination that the DEIR's air quality conclusions are essentially meaningless. The DEIR concludes that, with the application of the proposed mitigation measures, PM10 and PM2.5 emissions will be reduced, but still fails to apply any type of threshold to the reduced amounts. Similarly, the mitigation measures' reduction of ROG and NOx emissions do not reduce emissions below the significance threshold for Ojai Valley. Yet there is no explanation as to why there are no additional feasible mitigation measures that can be added to reduce these impacts to less than significant. An EIR cannot simply label an impact significant without this discussion and analysis; to do so would "allow[] the lead agency to travel the

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legally impermissible easy road to CEQA compliance.” (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1370 [EIR must provide a description and full analysis of a project’s significant impacts].)

05-38
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Page 4.3-17: The DEIR fails to include any meaningful analysis of health impacts associated with project exceedances of operational thresholds. CEQA mandates that an EIR discuss the potential health effects of significant air pollutant emissions. Here, the entirety of the discussion correlating the operational emissions to health impacts reads: “[T]he 2040 General Plan’s contribution to operational criteria air pollutants and precursors could result in greater acute or chronic health impacts compared to existing conditions.” This falls woefully short of what is required, which is a meaningful connection between the levels of pollutants that would be emitted by the completed Project, and adverse human health effects. (*Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 517-522.)

05-39

Page 4.3-18: No operational threshold is identified for CO, PM10 or PM2.5. The DEIR states that the 2040 General Plan is anticipated to result in 502 lb/day of CO, 320.9 lb/day of PM10, and 87.5 lb/day of PM2.5 emissions. Yet no significance threshold is provided for any of these three pollutants. Without a threshold, a reader has no context for determining whether these impacts are significant, and how significant they are. While the text goes on to assume that these are significant amounts of three pollutants, it is not enough to declare a project significant without providing any context showing how significant (how many orders of magnitude) the impact will actually be. (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners, supra*, 91 Cal.App.4th at p. 1370.)

05-40

Page 4.3-18: Analysis of operational emissions relies on several policies that are likely infeasible because they violate private property rights and/or are preempted by state and local law. The DEIR explains that it is relying on several new policies applicable to oil and gas facilities, to reduce operational emissions. However, there is no explanation as to why the County believes these new policies are feasible. The policies, among other things, require new oil wells to use pipelines to convey oil and produced water, and prohibits venting or flaring except in cases of emergency or for testing purposes. These policies are likely not feasible and preempted by state and federal law.

05-41

Page 4.3-19: Analysis of operational impacts concludes that operational emissions are “unknown” without any explanation as to why that is so. The DEIR concludes that while some policies in the 2040 General Plan would reduce criteria air pollutant and precursor emissions, “it is unknown if emission levels from future development would be reduced below the VCAPCD countywide and Ojai Valley thresholds.” However, Table 4.3-4 identifies ROG and NOx emissions levels that exceed the VCAPD thresholds by substantial amounts. It seems clear that future development

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will exceed these thresholds prior to the application of mitigation measures, and therefore, the DEIR should so state. (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners, supra*, 91 Cal.App.4th at p. 1370.)

05-42
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Page 4.3-19: The DEIR fails to identify feasible mitigation measures, and defers mitigation to later individual projects. CEQA requires a good faith reasoned explanation when an agency determines that there are no feasible mitigation measures to apply to a potentially significant impact. Here, the DEIR states, without explanation, that no feasible mitigation is available to reduce operational air quality impacts.

05-43

Page 4.3-21: Nonsensical “one-way” setback requirements. The DEIR identifies new policies that prohibit siting new oil and gas facilities within 1,500 feet of any residential unit and 2,500 feet from any school (up from 500 feet and 800 feet, respectively, in the current Code), and claims that this new setback requirement reduces the potential of exposing sensitive receptors to toxic air contaminant emissions. However there is no mention of prohibiting additional residential units within these new setback areas. There is no explanation as to why the former reduces potential impacts, but the latter would not. Further, there is no description of which air contaminants sensitive receptors will now be less exposed to, or what the significance is of this reduction. Mitigation measures must have a reasonable relationship or nexus between a project’s impacts and the measure or condition that is imposed. (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825; *Dolan v. Tigard* (1994) 512 U.S. 374.)

05-44

G. Biological Resources

Page 4.4-1: The analysis omits relevant aspects of the regulatory setting. As with the other environmental analyses sections, the salient aspects of the regulatory setting should not be buried in an EIR appendix, but clearly presented in the body of the DEIR. (See *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

05-45

Pages 4.4-2 through 10: The DEIR’s presentation of affected sensitive species is impermissibly unclear. There is no single presentation of all sensitive species affected by the 2040 General Plan. Instead, a reader must piece together sensitive species lists presented in both the Background Report appended to the EIR, and lists presented in the DEIR chapter. It is unclear why there is no single list of sensitive species available to a reader and obscures the environmental baseline upon which impacts to biological resources is based.

Page 4.4-10: The DEIR impermissibly punts analysis of wildlife nursery sites to future analysis. The DEIR acknowledges that CEQA requires analysis of impacts relating to native wildlife nursery sites, but then goes on to state that these sites “are not mapped for the plan area and would need to be identified and evaluated at a project-

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specific level.” The DEIR cannot just decide to ignore and defer identification of existing conditions or analysis of a particular impact. CEQA requires that the County put forward its best good faith effort at analyzing impacts, or else explain, with substantial evidence, why such an impact cannot be analyzed or is too speculative to analyze. (See *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Ca.3d 376, 410.) The DEIR fails to do either.

05-46
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Page 4.4-14: The DEIR lacks any analysis or significance determination for impacts relating to Habitat Conservation Plans (“HCPs”) or Natural Communities Conservation Plans (“NCCPs”). The DEIR states that there are no HCPs or NCCPs within the plan area – yet never makes an affirmative significance determination. A reader should not be forced to assume the County is making a “no impact” or “less than significant impact” finding, where the DEIR does not so state.

05-47

Page 4.4-22: The DEIR impermissibly punts biological resource mitigation for impacts to special status species and habitats to the resource agencies. The DEIR claims that project-specific mitigation measures would reduce impacts to special-status species to less than significant because they would be “developed consistent with applicable state and federal requirements” and follow standards established by the California Department of Fish and Wildlife (“CDFW”). But CEQA case law specifically prohibits deferring mitigation to resource agencies. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal.App.4th 645, 671 [an EIR cannot avoid studying impacts to biological resources by proposing a plan to mitigate presumed impacts based on future studies].)

05-48

Page 4.4-24: Mitigation measures do not actually address several of the identified types of impacts. The impact analysis for Impact 4.4-1 identifies several potential types of impacts to sensitive species, including spread of invasive non-native species that out-compete native species or alter habitats. Yet no mitigation is provided to address this identified impact. No aspect of Mitigation Measure BIO-1 addresses nonnative and invasive species or the harms caused by the same. Mitigation measures must address the actual impact identified, or else an explanation must be given as to why mitigation is not feasible. (State CEQA Guidelines, §§ 15121(a), 15126.4(a).) This comment also applies to the other impacts identified in this chapter, as they all rely upon this single mitigation measure.

05-49

Page 4.4-26: The DEIR impermissibly punts biological resource mitigation for impacts to riparian habitats to the resource agencies. The DEIR relies on future project-level review by CDFW and the California Coastal Commission to protect riparian habitat and ESHA. The DEIR reads, “Specifically, CDFW or the California Coastal Commission would not permit a project that would degrade these habitats without compensatory mitigation to fully mitigate for the significant impact.” But CEQA case

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law expressly prohibits relying on future review by resource agencies to reduce impacts. Under this line of reasoning, no project would ever have significant impacts on riparian habitats or ESHA, making CEQA's directive to the lead agency (here, the County) to analyze and mitigate biological impacts completely meaningless. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal.App.4th 645, 671 [mitigation deferral to future resource agency permitting review not appropriate where result expected is undefined].)

05-50
cont.

Page 4.4-27: The DEIR implies that if the General Plan included policies that specifically guided focused surveys for sensitive habitat, specific avoidance measures, or compensation requirements, this would further reduce impacts – but then fails to add a mitigation measure actually requiring that the General Plan do this. The DEIR concludes that impacts to riparian habitats and environmental sensitive habitat areas ("ESHA") are significant and unavoidable, but then also implies that if the 2040 General Plan added these certain performance standards, this would reduce impacts. Yet the 2040 General Plan does not go on to do so, and no explanation is given as to why these performance measures cannot be included. Even where an impact is significant and unavoidable, an agency still has the obligation to assign all reasonable and feasible mitigation measures that would reduce those impacts, even if they would not be reduced to a level of less than significant. (State CEQA Guidelines, § 15126.2(b).) This comment also applies to the other biological impacts identified in this section of the DEIR.

05-51

H. Cultural, Tribal Cultural, and Paleontological Resources

Page 4.5-16: The DEIR concludes that the impact of architectural resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding is based on speculation that the mitigation measures may not be sufficient in every case. CEQA Guidelines Section 15091(a) provides that findings must be supported by substantial evidence. As previously noted, an EIR cannot simply label an impact significant without this discussion and analysis; to do so would "allow the lead agency to travel the legally impermissible easy road to CEQA compliance." (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1370 [EIR must provide a description and full analysis of a project's significant impacts].) As noted in the general comments, this lack of analysis in effect simply defers all mitigation to project level environmental analysis. This is not the proper function of a program level EIR.

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Page 4.5-21: The DEIR concludes that the impact on historical resources will be significant and unavoidable despite the inclusion of standard mitigation

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measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding is also based on speculation that the mitigation measures may not be sufficient in every case.

Page 4.5-24: As with the impacts in architectural and historic resources, the DEIR concludes that the impact on tribal cultural resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding suffers from the same lack of real analysis as with regard to Impacts 4.5-1 and -2 and is based on speculation that the mitigation measures may not be sufficient in every case.

05-52
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Page 4.5-26: As with all of the other impacts in this section, the DEIR concludes that the impact on paleontological resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding suffers from the same lack of real analysis as with regard to all of the other impacts in this section and is based on speculation that the mitigation measures may not be sufficient in every case.

I. Energy

Page 4.6-4: The DEIR's discussion of environmental setting/environmental baseline is incomplete at best, non-existent at worst. The less than five page Background Report, combined with the DEIR's discussion of climate change does not amount to a clear, informative picture of what is going on within the County in terms of energy consumption, energy mix and energy efficiency, today, under the current General Plan. Such a discussion is critical to a legally adequate discussion of the environmental setting. (See *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713.) As such, it is impossible to judge whether implementation of the 2040 General Plan will have a beneficial, adverse or neutral impact on energy resources, and the DEIR's energy analysis is wholly deficient.

05-53

Pages 4.6-18 through 22: The DEIR fails to apply the two required energy significance thresholds identified in Appendix G of the State CEQA Guidelines. The DEIR states that it will qualitatively evaluate two distinct significance thresholds in its energy impacts analysis: (1) whether the project will result in inefficient/wasteful energy consumption, and (2) whether the project will conflict with state or local plans. However, the DEIR then conflates these thresholds into a single analysis concerning only wasteful consumption. No analysis is provided relating to whether the 2040 General Plan conflicts with state or local plans relating to energy. This analysis must be provided in a recirculated DEIR for public review and comment.

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Page 4.6-19: The DEIR fails to adequately identify policies that will reduce impacts relating to wasteful and inefficient energy consumption. The DEIR lists myriad policies that are ostensibly relevant to energy conservation (see DEIR pp. 4.6-7 to 7.6-18); however, the DEIR only identifies two proposed policies (COS-8.7 and COS-U) for ensuring that there is no wasteful or inefficient energy consumption across the entire 2040 General Plan area for the next 20 years.

05-55

Page 4.6-20: The DEIR's conclusions regarding energy consumption are unfounded. The DEIR states that it cannot quantify the effectiveness of energy conservation features for future development, but nevertheless concludes, without evidence, that future development under the 2040 General Plan will not unnecessarily expend energy. The analysis should be revised to include substantial evidence supporting this conclusion, and recirculated.

Pages 4.6-21 through 22: The DEIR's conclusions regarding consistency with statewide plans and policies is unfounded. The DEIR's conclusion that there will be consistency with all applicable state renewable policies, without identification of the policies or analysis of the 2040 General Plan against those policies is legally deficient. The analysis should be revised to include substantial evidence supporting this conclusion, and recirculated.

05-56

Background Report, p. 8-80 to 85: The Background Report's description of the environmental setting is drastically inaccurate and inadequate. The entirety of the Background Report's description of the existing energy resources and industry within the County is woefully inadequate. The entire discussion is less than five pages in length, and is devoid of any meaningful amount of data on energy source mix, County energy consumption, or other standard information that the public and decision makers need to understand the existing setting, environmental baseline, and impact analysis. Specific information that is in error or wholly missing includes, but is not limited to, any discussion of oil and gas based energy production and consumption within the County, any discussion of natural gas consumption within the County, and any discussion of the use of natural gas to fuel power plants and produce the electricity consumed by County residents. Finally, the discussion's estimate of energy employment within the County is a drastic underestimate. As set forth in the publically available study entitled "Economic and Tax Revenue Impacts of Oil Production in Ventura County," there are approximately 900 individuals employed by oil and gas explorers and producers within the County. That is more than double the amount disclosed by the DEIR.

05-57

J. Geologic Hazards

Page 4.7-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for

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information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

05-58
 cont.

K. Greenhouse Gas Emissions

Page 4.8-6: The DEIR's greenhouse gas reduction targets are not based on substantial evidence and violate CEQA case law. The DEIR explains that the Climate Action Plan ("CAP") developed as part of the 2040 General Plan applies the same targets to Ventura County as the state has adopted for all of California. This approach wholly ignores regional differences, which is an approach to local CAPs that courts have struck down in myriad cases. (See, e.g., *Golden Door Properties, LLC v. County of San Diego* (2018) 27 Cal.App.5th 892, 905; *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 225.) Courts have explained that local reduction goals cannot be based on statewide metrics and instead must explain why applying statewide data and reduction targets is appropriate for setting the metrics in the local region (here, Ventura County). Here, there is absolutely no substantial evidence supporting the application of the 40% and 80% statewide targets to Ventura County. This analysis should be done, incorporated into a revised DEIR, and recirculated for public review and comment.

05-59

Page 4.8-8: Greenhouse gas emissions thresholds identified in the DEIR for application to future projects are not supported with substantial evidence. The DEIR identifies two threshold "options" with which to analyze future projects, but neither is supported with substantial evidence. Both are also based on 2020 statewide targets. Yet, it is 2020 now and so these targets are wholly inappropriate for any project that is not built out before this year. Second, they are based on statewide criteria, which is inconsistent with CEQA case law requiring substantial evidence tying statewide reduction targets to the local context. (See, e.g., *Golden Door Properties, LLC v. County of San Diego* (2018) 27 Cal.App.5th 892, 905; *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 225.) The DEIR implies that it is fine to rely on these thresholds because they are identified (albeit not adopted) by Ventura County Air Pollution Control District. While CEQA permits borrowing thresholds from regulatory agencies, they must nonetheless be supported by substantial evidence. Here there is no substantial evidence provided in the DEIR supporting use of these thresholds.

05-60

Pages 4.8-11 through 37: Several identified General Plan policies are infeasible or preempted. The greenhouse gas emissions analysis relies upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include policies COS-7.2, 7.4, and 7.7, and implementation program M (oil and gas operations tax). Taking credit for policies that

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are more than likely to be either struck down or that are simply infeasible results in an erroneous analysis, not based upon substantial evidence. (See, e.g., *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [mitigation measures must actually be enforceable].)

05-61
 cont.

Page 4.8-39: The DEIR’s greenhouse gas emissions analysis applies the wrong horizon year. It is unclear why the DEIR focuses on reductions by 2030, when the planning horizon for the GPU is 2040. DEIR Table 4.8-5 summarizes the assumed greenhouse gas emissions reductions by 2030, but not 2040, which is the planning horizon for the 2040 General Plan. The analysis should therefore be revised to consider the 2040 General Plan’s consistency with the state’s reduction targets, as applied to the year 2040.

05-62

L. Hazards, Hazardous Materials, and Wildfire

Page 4.9-1 through 2: As with most other sections of the Regulatory Setting and Environmental Setting sections of the DEIR impermissibly relies on a separate 1,000+ page appendix. See general comments on this deficiency.

05-63

Page 4.9-9: County Policy HAZ-7.1 is noted as requiring that the County review and analyze all proposed oil and gas exploration and production wells and projects and shall require compliance with all local, state and federal oil spill prevention regulations. This policy is inconsistent with the fact that local regulation of oil and gas exploration and production is largely the subject of preemption. Moreover, as previously noted, CEQA case law specifically prohibits deferring mitigation to resource agencies. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal App.4th 645, 671 [an EIR cannot avoid studying impacts to biological resources by proposing a plan to mitigate presumed impacts based on future studies].)

05-64

Page 4.9-11 through 12: The discussion under Impact 4.9-1 fails to consider the existing oil and gas operations and the potential impact of new County policies. It is noted that oil and gas wells are among the uses permitted in the Rural and Open Space land use designation, which in turn includes approximately 98 percent of County land, but there is no discussion of what percentage of these lands are actually used for oil and gas production. It should be noted that a very small percentage of land is actually utilized for these operations. This section also notes that the potential for new pipeline construction and operation may be increased by the new 2040 General Plan policies limiting trucking as a means of transporting oil and gas from a new discretionary well. There is no discussion of the potential impact of constructing and operating new pipelines or the feasibility of this measure. How will right-of-way be acquired from offsite property? What legal constraints exist on located pipelines within or adjacent to sensitive land uses including residential areas? Is the true intent of this policy the elimination of

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new oil and gas production uses? Nor is there any discussion of the alleged impact of the existing trucking of oil and gas products with regard to hazards or hazardous materials.

County Policies HAZ-5.2, HAZ-5.5, HAZ 5.8 and HAZ 7.1 and County Implementation Programs K and L are noted as providing guidance for the location, operation, and management of discretionary development including oil and gas exploration and production such that future sites would reduce impacts to public health and the environment but there is no analysis of how these policies may operate to reduce the impacts to a less than significant level. This finding is not supported by substantial evidence as required by law.

05-65
 cont.

Page 4.9-14 through 16: The discussion under Impacts 4.9-2 and 4.9-3 similarly references County Policies HAZ-5.2, HAZ-5.5, HAZ 5.8 and HAZ 7.1. and County Implementation Programs K and L with no analysis of how these policies and programs would reduce potential impacts to a less than significant level. An EIR must contain an explanation of the reasoning supporting the EIR’s impact findings, and the supporting evidence. (See *Napa Citizens for Honest Govt. v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 359.)

05-66

M. Hydrology

Pages 4.10-6 through 7: The DEIR fails to consider impacts associated with prohibiting development in certain locations and impacts associated with water usage. Proposed policies HAZ 2.1, and 4.14, and the DEIR’s discussion of water wells, fails to account for or analyze the potential for environmental impacts. Restricting growth in certain development areas is likely to push development elsewhere, resulting in impacts that are not disclosed in this analysis.

05-67

Pages 4.10-9 through 10: The DEIR fails to support its conclusions regarding water quality and overdraft with substantial evidence. The analysis does not link its impacts determination to the effectiveness of GSPs and Ordinance 4468 to ensure impact is less than significant. There is no evidence supporting the conclusion that GSP/Ordinance 4468 compliance will ensure less than significant impacts. To the contrary, a cursory examination indicates that mere compliance will not be adequate. The GSPs have not even been developed (see DEIR p. 4.10-6) and no performance standards are identified for any proposed GSP. Ordinance 4468 is a groundwater pollution control ordinance (see Section 4811) and does not actually prohibit all drilling of new wells, which could lead to overdraft. (See <http://pwportal.ventura.org/WPD/docs/Groundwater-Resources/Well%20Ordinance%20No.%204468.pdf>.) Further, the DEIR punts impact analysis to a future date, and also presents internal inconsistencies in its analysis of Impact 4.10-3. Specifically, the DEIR states that compliance with GSPs will ensure no

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over-extraction in unknown basins, but then also states that impact analysis cannot be performed at this time. This is then followed by the DEIR's unsupported less than significant impact conclusion (see 4.10.11). Given these inconsistencies, this analysis should be revised to include and cite to substantial evidence, and recirculated for public review and comment.

05-68
cont.

Page 4.10-13: The DEIR does not adequately analyze impacts to water for consumptive use. The analysis of Impact 4.10-6 relies upon an uncertain and unstable water supply, calling into question the DEIR's impact significance determination here.

05-69

N. Land Use Planning

Background Report p. 3-47: The DEIR does not analyze or reconcile the inconsistency between the 2040 General Plan and the Ventura Avenue Plan. The Ventura Avenue Plan clearly contemplates protection and expansion of oilfield uses, while the 2040 General Plan's goals, policies and programs do not. There is no analysis of this inconsistency, and instead, the DEIR makes the false assertion that the 2040 General Plan is consistent with the Ventura Avenue Plan. This analysis should be revised and recirculated for public review and comment.

05-70

Background Report, pp. 3-89, 3-90 and 3-97: As discussed previously, the DEIR's failure to address and analyze the impacts of up-zoning to meet future housing needs results in improper segmentation. The DEIR concedes that the County cannot meet post-2020 housing growth needs and commercial growth needs, and concedes that "up-zoning" would be required to meet anticipated RHNA housing obligations. However, the DEIR is devoid of any analysis regarding this apparent conflict. The reasonably foreseeable "up-zoning" needs to be analyzed as part of this Project and this analysis. (State CEQA Guidelines, §§ 15126, 15165 [when a project will be implemented in phases, the EIR must discuss and analyze the effects of the entire project].) As noted elsewhere, the underlying development potential methodology utilizes outdated (2014) RHNA numbers which effectively masks the disparity between "potential" and actual development that will take place through horizon 2040, burying the magnitude of the potential for land use impacts.

05-71

Page 4.11-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. The land use chapter of the Background Report is more than 135 pages, not including an attachment. A reader has to do significant digging just to find the relevant regulatory setting, which should be presented upfront, in the body of the DEIR. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

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Page 4.11-2: The DEIR fails to cite to substantial evidence to support several of its land use impact conclusions. For example, the DEIR states, “In determining the level of significance, this analysis assumes that the 2040 General Plan would comply with relevant Guidelines for Orderly Development, greenbelt agreements, and the Save Open Space & Agricultural Resources (SOAR) initiative measure for Ventura County’s unincorporated areas.” But this conclusory statement is not supported with any analysis. See above comments on the Project Description relating to substantial evidence supporting the conclusion that the Project Description is consistent with these documents.

05-73

Page 4.11-2: The DEIR fails to analyze internal inconsistency, or consistency between the 2040 General Plan and the existing Area Plans that are not amended. The DEIR states that Threshold 25(1) asks whether the Project is consistent with the community character policies and development standards in the Ventura County General Plan goals, policies and programs, or applicable Area Plan. The DEIR goes on to explain that this threshold will not be considered in this DEIR because “this draft EIR is an evaluation of an update to the Ventura County General Plan goals, policies and programs, and Area Plans under which future projects would be evaluated.” However, failing to analyze this threshold means that there is no analysis of internal consistency. The Project Description chapter of the DEIR explains that very few changes are made to the Area Plans, therefore the Land Use & Planning chapter of the DEIR should consider whether the changes in the land use designations are consistent with all policies that are unchanged. See comment above regarding the Ventura Avenue Plan’s protection and expansion of oil field uses.

05-74

Page 4.11-3: The DEIR’s land use analysis relies on an unclear project description. General Plan Policy LU-1.2 generally describes the “Urban” and “Existing Community” area designations. But, as discussed above, the DEIR Project Description states that these designations are being replaced by 15 different and more specific land use designations. Therefore the Project Description and this policy are inconsistent. If the 2040 General is replacing the Urban and Existing Community designations with new designations, why is Policy LU-1.2 still a part of the 2040 General Plan? The same comment applies to Policy LU-2.1 and LU-3.1 through 3.3. If one of the salient features of the 2040 General Plan is to replace these general designations with more specific designations, these policies just further muddy the water on what exactly the Project Description is. Without a stable and consistent project description, there can be no legally defensible analysis of environmental impacts. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185.)

05-75

Page 4.11-6: The DEIR’s assumptions regarding the RHNA undermine the Project Description and analysis of land use impacts. 2040 General Plan Policy LU-1.3 states that the County will work with SCAG “to direct state regional housing needs allocations predominantly to cities...” However, as discussed above in regards to improper segmentation, the RHNA methodology is already available and estimates a

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significant number of new units to be accommodated within the unincorporated county. Further, cities are likely to push back on their significantly higher RHNA allocations, and push those units out to the County such that the final number will likely be even greater. For all these reasons, and the ones identified in our comments on the Project Description, the entirety of the GPU should be paused until the RHNA allocations are finalized. See also comments above regarding Background Report pp. 3-89 to 3-90, 3-97.

05-76
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Page 4.11-6: The DEIR fails to consider or analyze reasonably foreseeable implementation actions. 2040 General Plan Policy LU-4.2 requires zoning consistency between the GP and the zoning code. See comments above regarding improper segmentation and failing to consider reasonably foreseeable (and legally required!) implementation actions as part of “the project” for purposes of CEQA. See also, **Implementation Program B**, which requires that the County “review and amend, as necessary, applicable ordinances and regulations to ensure consistency with the General Plan, including the Zoning Ordinances and Building Code.” These policies further illustrate the DEIR’s inconsistency with CEQA’s mandates, which require analysis of the “whole” project. (State CEQA Guidelines, § 15378(a); see also *Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora* (2007) 155 Cal.App.4th 1214.)

05-77

Page 4.11-14: The DEIR relies on a 2040 General Plan Policy that is likely inconsistent with vested rights and/or preempted by state or federal law. Policy LU-17.4 prohibits the introduction of new incompatible land use and environmental hazards that would have health implications into or abutting existing residential areas, in particular within designated disadvantaged communities.” Yet there are no details provided as to what constitutes a health implication and no explanation as to why there is no similar prohibition against introducing new residential uses adjacent to land currently (or likely to be in the future) dedicated to oil and gas use.

05-78

Page 4.11-18: The DEIR fails to analyze the land use impacts (and all other impacts) associated with the new 2040 General Plan land use designations. The 2040 General Plan creates 13 new land use categories (or 15, given that the Project Description is inconsistent between sections of the DEIR) with distinct development standards—yet there is no real analysis of how the installation of the 13 or 15 new use classes that did not previously exist would not create a conflict with uses established pursuant to the six use designations established in the current General Plan. Notably, the DEIR concedes that the new land use classifications will result in development at a higher intensity in locations where residential, commercial, and industrial uses exist. Yet there is no explanation of how this intensification will be accomplished to avoid incompatibility. (As has been the case throughout the DEIR, Section 4.11 consists of a laundry list of LU policies, but, when it comes to explaining the role those policies play in avoiding or mitigating a potential impact (e.g. incompatible uses), the DEIR fails to provide that critical explanation/analysis.)

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Page 4.11-21: The DEIR’s vague and inconsistent Project Description results in unsupported conclusions regarding land use compatibility. The DEIR states that “Policies LU-4.1 and LU-4.2 would reduce incompatible land uses by specifying densities and/or intensities of allowed uses within each land use designation and maintaining continuity with neighboring zoning, land uses, and parcel sizes.” But neither of these policies do this, or specify densities or intensities in any way. Therefore, it is unclear how the significance conclusion is supported. Similarly, the DEIR states that Policy LU-6.1 reduces incompatibilities by “specifying buffers” but this policy does not specify any performance criteria or distance criteria at all. It only states generally and generically that “adequate buffers” be incorporated into non-agricultural uses adjacent to agricultural uses.

05-80

Page 4.11-22: The DEIR’s analysis and conclusions regarding division of an established community are not based on substantial evidence. The DEIR relies on only one policy (promotion of orderly and compact development) to ensure that there will be no division of established communities. Yet, this is not enough substantial evidence to support the significance conclusion. The DEIR does not even acknowledge that foreseeable infrastructure improvements caused by intensification of growth in a confined space will, at minimum create temporary divisions and disruptions during construction (e.g., trenching to upsized infrastructure, road closures to improve streets). Thus, it is unclear how the conclusion that impacts are less than significant can be supported.

05-81

Pages 4.11-22 through 24: The DEIR cannot conclude that the 2040 General Plan is consistent with the RHNA when the 2040 General Plan includes only a “placeholder housing element” and improperly segments the Housing Element and accommodation of the RHNA from its Project Description. The DEIR states that “Implementation of the 2040 General Plan policies and programs listed above, coordination of the RHNA with housing element updates, and compliance with applicable regulations would ensure that development under the 2040 General Plan is consistent with the RHNA.” This essentially argues that the 2040 General Plan is consistent with the RHNA because the County will change the General Plan in the very near future to accommodate the RHNA. This is nonsensical. For all the reasons provided in our comments on the Project Description, the RHNA, which is imminent and by the County’s own estimate will be released while the DEIR is out for public review, accommodating the RHNA may likely require changing the designations identified in the 2040 General Plan. This undermines the meaning and reliability of the DEIR’s impact analyses. This is exactly why CEQA prohibits improper segmentation of related projects. (See *Orinda Association v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171.)

05-82

Pages 4.11-18 through 24: Even though the 2040 General Plan will provide the land use and planning blueprint for the entire County for the next 20 years, the land use impacts analysis is a mere seven pages. This alone indicates that the impact analysis is so truncated as to be meaningless. Further, regarding analysis of Impact 4.11-

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13, there are presumably a number of plans/policies adopted for purposes of environmental protection that were not considered in the DEIR—the DEIR lists a mere handful of plans and policies. In most EIRs, this analysis is much more thorough.

05-83
 cont.

O. Mineral and Petroleum Resources

Background Report p. 8-71: The Background Report Drastically Underestimates Known, Recoverable Oil and Gas Reserves Mischaracterizes Oil and Gas as Not Within the Definition of “Mineral Resources.” It does not appear that the County considered Aera’s historic production and known reserves. This critical omission causes the DEIR to underestimate County-wide oil and gas reserves. Additionally, it appears that the County eschewed accepted methodological practices in estimating oil and gas reserves so as to further underestimate the volume of and value of these known recoverable resources. Finally, the DEIR appears to treat oil and gas as a resource separate and apart from aggregate mineral resources (such as sand and gravel) for purposes of determining the consequences of adopting GP 2040. Under CEQA, the DEIR must fully and fairly disclose whether adoption of GP 2040 will result in the loss of availability of a known mineral resources—this includes the loss of oil and gas as well as the loss of sand, gravel or other minerals utilized in concrete production.

05-84

05-85

Pages 4.12-1 through 4: The DEIR lacks an adequate description of the existing regulatory setting. The DEIR seems to disclose only those federal and state agencies that regulate pipelines and flaring. This is, at best, only a fraction of the regulatory framework relevant to oil, gas, and mineral production.

05-86

Pages 4.12-5 through 6: The impact assessment methodology is based on incomplete and inaccurate underlying data. The 2040 General Plan relies upon a four year old map of petroleum field locations, not reserve locations. The boundaries of a field do not indicate the known extent of recoverable sub-surface reserves. This results in a significant underestimate of impacts on extraction.

05-87

Page 4.12-7: The DEIR makes a bare conclusory statement that the 2040 General Plan is consistent with and will not impair the implementation of any mineral resource goal/policy in any of the Area plans. However, a cursory examination of the County’s North Ventura Avenue Plan (“NVAP”) reveals that this bare assertion is incorrect. The NVAP contemplates new and expanded oilfield development within land specifically zoned for such development. *See NVAP* at page 12. How is this overarching development consistent with the goals and policies of GP 2040 aimed at phasing out the extraction and production of oil and gas in the County?

05-88

Page 4.12-8: The DEIR relies upon legally infeasible policies. As discussed earlier, several of the policies relied upon in the DEIR are likely legally infeasible, and therefore cannot provide a basis upon which to analyze impacts. Specifically, Policies

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COS-7.2 and 7.3 likely amount to regulatory takings. Under COS-7.3, modification of a previously issued permit would wrongfully subject the permittee to compliance with current development constraints across the entire permit area. In other words, the request to drill one well on a 1000 acre permit site would trigger compliance with all new regulations across the entire site, despite the minor nature of the request. Moreover, Policies COS-7.7 and 7.8 are preempted, as a local agency cannot eliminate the use of trucking of oil or limit flaring to County-defined instances of "testing" or "emergency." Those activities are governed by state and federal law.

05-89
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Page 4.12-10: The DEIR's conclusions for Impact 4.12-1 are unsupported. The DEIR states that residential and industrial uses will be installed in a major mineral resource zone (MRZ-2), but inexplicably concludes that the impact is less than significant. There are no facts or analysis supporting this conclusion.

05-90

Page 4.12-11: The DEIR's conclusion of less than significant with respect to mineral resources is contradicted by the DEIR's own supporting Background Report. The DEIR concedes that more than half of the 2040 General Plan area is MRZ 3a/b. The DEIR's Background Report states that such lands have mineral value as follows: "MRZ-3: Areas containing known mineral deposits that may qualify as mineral resources (3a) or areas containing inferred mineral deposits that may qualify as mineral resources (3b). Further exploration work within these areas could result in the reclassification of specific localities into the MRZ-2 category." The DEIR's less than significant conclusion is wholly unsupported, as development will necessarily impact MRZ 3 resources, and these zones contain inferred mineral deposits.

05-91

Page 4.12-12: The DEIR's reliance on the 2018 County of Los Angeles Report is unfounded. The DEIR proposes the imposition of various measures and policies based on the alleged human health findings contained in a report referred to as "County of Los Angeles, 2018. Public Health Safety Risks of Oil and Gas Facilities in Los Angeles County. Los Angeles County DPH" (hereinafter "2018 County of Los Angeles Report"). There preparers of this report have themselves disputed the validity of the report's conclusions. As such, the 2018 County of Los Angeles Report does not amount to substantial evidence supporting the DEIR's imposition of measures and policies to allegedly protect human health.

05-92

Pages 4.12-11 through 19: The DEIR fails to put forth a good faith effort at mitigating significant impacts to oil and gas resources. The DEIR fairly concludes that 2040 General Plan Policy COS-7.2 will have an adverse and significant and unavoidable impact on oil and gas exploration and production. Additionally, as already noted above, it arguably constitutes a regulatory taking. However, there is no meaningful effort made to mitigate this significant impact. The fundamental purpose of an EIR is to identify ways in which a proposed project's significant environmental effects can be mitigated or avoided. (Pub. Resources Code, §§ 21002.1(a), 21061.) Therefore,

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declaring an impact significant does not absolve a lead agency from identifying and adopting all feasible mitigation measures, if those measures do not reduce impacts to a level of less than significant. Further, the reasonably foreseeable indirect impacts of implementation of Policy COA-7.2 are not evaluated in any way in the DEIR. Foreign importation of oil increases greenhouse gas emissions and air quality degradation. Even if those impacts were to occur outside of the County's boundary, CEQA mandates that the County analyze and disclose these impacts in this DEIR. (See State CEQA Guidelines, § 15358(a)(2).) None of the proposed mitigation measures reduce these potentially significant impacts to less than significant.

05-93
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Page 4.12-22: The DEIR fails to analyze and disclose reasonably foreseeable indirect impacts associated with several of the 2040 General Plan's proposed policies. The DEIR ignores the foreseeable adverse consequences associated with large scale installation of oil and gas pipelines, which would include, but not be limited to, soils/geology, hydrology and water quality, cultural and hazards impacts. (See *Laurel Heights Improvement Association v. Regents of Univ. of California* (1988) 47 Cal.3d 376, 396 [EIR must analyze any action if it is a reasonable, foreseeable consequence of the project].) None of the proposed mitigation measures reduce these potentially significant impacts to less than significant.

05-94

P. Noise and Vibration

Page 4.13-5: The methodology utilized to assess operational impacts fails to consider potential significant increases in traffic projected to occur as a result of the new RHNA allocation in the region and state housing legislation and policies. As discussed in the comments on the Transportation and Traffic Section, this analysis should await the final RHNA numbers and the update of the County Housing Element.

05-95

Page 4.13-23: The discussion under Impact 4.13-4 lists oil supply facilities among major industrial noise sources. The only support for this assertion is a reference to the Background Report. The Background Report, however, includes no analysis or justification for this conclusion, and the DEIR is likewise devoid of any evidence supporting this conclusion. As such, the DEIR does not, and cannot, demonstrate that oil and gas production generates noise above and beyond the noise levels generated by general industrial activities.

05-96

Page 4.13-27: County Policy HAZ 9.2 provides for specific noise control measures applicable to new noise generators located near sensitive uses but fails to restrict the development of new sensitive uses adjacent to areas where new noise generators are permitted uses. Policy HAZ 9.2 does not go far enough in mitigating potential noise impacts on sensitive uses. Absent policies addressing the location of new sensitive uses, the County policy can only serve as a limitation on the development of otherwise permitted uses such as oil and gas production uses. Mitigation measures must

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have a reasonable relationship or nexus between a project's impacts and the measure or condition that is imposed. (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825; *Dolan v. Tigard* (1994) 512 U.S. 374.) Implementation of this policy may well result in a regulatory taking of property interests to the extent that they would deprive property of investment backed expectations.

05-97
cont.

Q. Population/Housing

Page 4.14-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for information buried in a more than 1,000+ page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.) Further, even taking the Background Report into account, there is no discussion of Senate Bill 330, which has significant population and housing repercussions that must be taken into account as part of the DEIR's analysis.

05-98

Pages 4.14-6 through 8: The DEIR fails to account for the impending RHNA numbers, and this results in improper segmentation and piecemealing. See previous comments on this topic.

05-99

R. Public Services and Recreation

Page 4.15-1: As with other sections of the DEIR, this section does not reflect the likely increases in population that will result in the upcoming RHNA allocations to the County and to cities within the County. See previous comments on this topic.

05-100

S. Transportation and Traffic

Page 4.16-4: The VMT estimates in Table 4.16 are not reflective of the additional traffic that will be created by the new RHNA allocations both within the County and in the region and new state legislation and policies that are intended to increase housing production. Regional traffic is significant because the threshold included in the DEIR include regional traffic in the baseline. Projected increases in housing are significant and will generate significant increases in regional VMT which in turn will impact traffic within the unincorporated County.

05-101

4.16-7 through 8: The proposed thresholds are not really thresholds of significance. The purported threshold that assumes a reduction of VMT by 15% below existing projected levels is really proposed mitigation, not a threshold of significance. Even so, this approach is subject to numerous objections, not the least of which is that it is aspirational social engineering based on stated state goals with respect to GHG reduction and not potential environmental impacts. There is no analysis of the feasibility

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of achieving a 15% reduction in VMT on a project-by-project basis. A failure to address the issue of feasibility renders this analysis illusory. There is no substantial evidence to support its feasibility. See *Cleveland Nat'l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

O5-102
 cont.

Page 4.16-10 through 11: The use of the existing baseline is flawed based on the potential significant increases projected to occur as a result of the new RHNA and state housing legislation and policies. This analysis should await the final RHNA numbers and the update of the County Housing Element. Moreover, this threshold is likely to obsolete in view of the fact that the DEIR notes that this threshold will no longer apply once the Ventura County ISAG VMT thresholds are adopted which is likely to occur prior to June 30, 2020, when VMT analysis becomes mandatory.

O5-103

Page 4.16-12 through 13: The proposed General Plan polices seem to improperly conflate VMT standards with LOS standards. Proposed Policy CTM-1.1 bases an acceptable level of service on VMT impacts yet fails to address previous County policies that base level of service impacts on specified congestion related impacts (LOS standard). Is it the intent of the County to ignore proposed congestion impacts and, if so, how will proposed Policy CTM-1.7 be implemented so as to require discretionary projects to share the cost of added trips and improvements to the road system per the County traffic mitigation program? Under VMT theory congestion is good as it serves to promote reductions in VMT by encouraging high density development and the use of alternative means of transportation. What improvements are contemplated as mitigation?

O5-104

Page 4.16-15: How will the County comply with the provisions of the Congestion Management Program as required by Government Code Section 65088 et seq. Proposed Policies CTM-2.7 and CTM-2.8 contemplate that the County will cooperate with Ventura County Transportation Commission in complying with the provisions of Government Code Section 65088 et seq regarding Congestion Management Programs (CMPs). The management of congestion per the CMP specifically includes the use of LOS standards, not VMT.

O5-105

Page 4.16-23: The DEIR analysis that asserts that the new 2040 General Plan Policy addressing flaring and trucking associated with new discretionary oil and gas wells would result in a potential reduction in VMT in the County is not supported by substantial evidence. This analysis is flawed in that heavy trucks are not among the categories of VMT included in the OPR recommended threshold. (Office of Planning and Research, Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) at page 4).

O5-106

Page 4.16-24: The forecasts set forth in Table 4.16-4 similarly fail to consider likely increases in VMT throughout the region based on the proposed new RHNA

O5-107

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allocations for the County and cities within the County and are not supported by substantial evidence. Table 4.16-4 purports to be a 2040 forecast, but, as with other portions of the DEIR, fails to account for the much higher RHNA numbers that will be applied in the region and as a result fails to provide an adequate basis for the thresholds identified in Table 4.16-5, which in turn results in a default to a finding of significant and unavoidable impacts for impacts 4.16-1 and 2.

O5-107
 cont.

T. CUMULATIVE IMPACTS

Aera's comments regarding cumulative impacts are addressed in the individual topics identified above. However, generally, the DEIR fails to adequately consider whether the Project's individual impacts, when considered in the context of other projects proposed within the County, the region, and the individual incorporated cities within the County, results in cumulatively considerable environmental impacts. This includes whether the RHNA numbers that will be assigned not just to the County, but to the individual incorporated cities within the County, will result in new projects, new general plan amendments, new zoning amendments, or other policy changes that, together with the proposed 2040 General Plan, will result in cumulative impacts relating to air quality, greenhouse gases, noise, traffic, aesthetics, mineral resources, and biological impacts, among others.

O5-108

U. ALTERNATIVES

Page 6-1: The Alternatives analysis is flawed in its failure to account for new RHNA allocations and housing legislation. The underlying land use policies are subject to change in the near future as a result of pending increases in the regional RHNA allocations and State housing policy. Like most other sections in the DEIR, it is premature to consider alternatives to the project in advance of a the issuance of the final RHNA allocations in the region and an analysis of the impact of State housing policy on land use within the County.

O5-109

Page 6-1: The Alternatives Section is flawed due to the DEIR's failure to adequately disclose and mitigate significant and unavoidable impacts. CEQA requires that public agencies do their best to disclose the actual severity of significant impacts, and implement and enforce all feasible mitigation measures to reduce significant impacts. As described above, this DEIR declares several impacts "significant and unavoidable" without meaningful analysis, or a true good faith examination of feasible mitigation measures. Because CEQA mandates that the project alternatives identified and analyzed in an EIR be based on what can feasibly reduce significant and unavoidable impacts, when those impact analyses are flawed, so too is the alternatives analysis.

O5-110

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III. CONCLUSION AND REQUEST FOR RECIRCULATION

As described above, the DEIR is deficient in myriad ways and we respectfully request that it be significantly revised and recirculated, as required by CEQA and the State CEQA Guidelines. Recirculation is required when new information is added to an EIR after notice of public review has already been given, and that new information requires additional review by the public. (Pub. Resources Code, § 21092.1.) Where new information added to an EIR is "significant", recirculation is required. (*Ibid.*) Where new information shows a new impact, a substantial increase in the severity of an impact, a new feasible alternative or mitigation measure, or where the DEIR previously circulated was so fundamentally inadequate and conclusory in nature that public comment was essentially meaningless, the new information added to the EIR is "significant." (*Laurel Heights Improvement Association v. Regents of Univ. of Cal.* (1993) 6 Cal.4th 1112, 1130; State CEQA Guidelines, § 15088.5(a).) Further, where the previously circulated EIR wholesale omitted key information necessary to actually determine what a proposed project's potentially significant impacts would be, recirculation is required. (*Mountain Lion Coalition v. Fish & Game Commission* (1989) 214 Cal.App.3d 1043; *Save Our Peninsula Comm. v. Monterey County Bd. of Supers.* (2001) 87 Cal.App.4th 99, 131.)

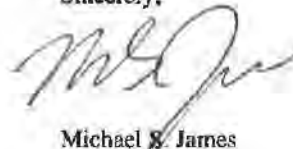
05-111

Again, Aera appreciates the opportunity to review and comment upon the DEIR, and looks forward to seeing the recirculated report in the near future. As requested, we are providing the name of our point of contact, mailing address and email address as follows:

05-112

Michele Newell
3382 N. Ventura Avenue
Ventura, CA 93001
E-mail: MLNEWELL@AERAENERGY.COM

Sincerely,



Michael S. James
Senior Counsel
Aera Energy, LLC

| | |
|----------------------|---------------------------------------------------------------------------------|
| Letter O5 | Aera Energy LLC Michael S. James, Senior Counsel February 27, 2020 |
|----------------------|---------------------------------------------------------------------------------|

- O5-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided. Refer to Master Response MR-7 which explains in detail why recirculation of the draft EIR is not required.
- O5-2 The description of the commenting organization’s role and operations in Ventura County are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- O5-3 The commenter’s discussion of the purpose and legal requirements of the California Environmental Quality Act (CEQA) is noted. As explained in detail in the responses that follow, the County has prepared this EIR in compliance with applicable regulations.
- O5-4 The comment states that the draft EIR improperly segments the analysis of the 2040 General Plan from the pending update of the County’s Housing Element, and improperly piecemeals analysis of the 2040 General Plan implementation actions. In the CEQA context, a project is “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment,” including “the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700.” (CEQA Guidelines, § 15378(a)). Piecemealing or segmenting means dividing a project into two or more pieces and evaluating each piece in a separate environmental document, rather than evaluating the whole of the project in one environmental document. This is explicitly forbidden by CEQA, because dividing a project into a number of pieces would allow a lead agency to minimize the apparent environmental impacts of a project by evaluating individual pieces separately, each of which may have a less-than-significant impact on the environment, but which together may result in a significant impact. Segmenting a project may also hinder developing comprehensive mitigation strategies. In general, if an activity or facility is necessary for the operation of a project, or necessary to achieve the project objectives, or a reasonably foreseeable consequence of approving the project, then it should be considered an integral project component that should be analyzed within the environmental analysis (AEP 2016). As explained in the draft EIR, the 2040 General Plan land use designations would be consistent with land uses and densities/intensities allowed under the current zoning designations for each affected parcel (page 3-4). Moreover, a zoning ordinance implements a general plan by regulating development through specific standards and would not include any integral project components that have not already been evaluated as part of the draft EIR for the 2040 General Plan. Also refer to the response to comment O5-20.

Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County's projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update. No improper segmentation has occurred. No revisions to the draft EIR have been made in response to this comment.

O5-5 The comment states that the draft EIR project description does not meet the requirements of CEQA and, thus, the draft EIR should be recirculated. Refer to Master Response MR-2 for discussion of the adequacy of the draft EIR project description. Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

O5-6 The comment states that the draft EIR includes little technical analysis or analysis of the feasibility of mitigation measures. The draft EIR analyzes 88 unique impacts. Less than a third of these impacts (27) are found to be significant and unavoidable. Further, feasible mitigation is provided for 75 percent (20) of the 27 significant and unavoidable impacts. For the remaining seven impacts, the draft EIR explains that there is not additional feasible mitigation beyond the regulations in place and the policies and programs incorporated in the 2040 General Plan.

The draft EIR contains a level of specificity commensurate with the level of detail of the program. It would not be appropriate for the draft EIR to presume to analyze the full universe of potential projects that could occur throughout the entire unincorporated plan area over the 20-year plan horizon. Therefore, where there is not substantial evidence to support a less-than-significant conclusion without speculation, the County has reached a significant and unavoidable conclusion. As explained in further detail below, the draft EIR includes an appropriate level of technical detail without improper deferral of analysis and is consistent with the mandates of CEQA.

O5-7 The commenter's opinion that goals and policies of the 2040 General Plan would impair property rights or would be preempted by State law is noted will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General Plan. This is not a comment on the content or analysis in the draft EIR.

Specific comments regarding the feasibility of mitigation proposed in the draft EIR and other concerns specific to the draft EIR are addressed in the responses to comments that follow.

O5-8 The comment states that the draft EIR does not provide substantial evidence for its significant and unavoidable impact conclusions and, therefore, should not be relied on to permit future streamlining. The draft EIR provides an appropriate level of detail for programmatic analysis of the 2040 General Plan. Refer to response to comment O5-6. Significant and unavoidable impact conclusions are reached where there is not substantial evidence in the record that there is a feasible means of effectively mitigating potential impacts from all projects that could occur in the unincorporated County over the 20-year plan horizon. There are seven out of 88 impacts where there is a significant and unavoidable impact

conclusion and no feasible mitigation is available. The commenter does not offer any specific examples of draft EIR impact analysis sections that are “unsupported by substantial evidence” or any actual feasible mitigation measures that should have been included in the draft EIR to avoid or substantially lessen any significant impacts.

The comment quotes text from Section 1.2.1, “Type and Use of This EIR,” in Chapter 1, “Introduction.” As noted by the commenter, the State CEQA Guidelines (Section 15168(c)) establish that additional environmental documents may not be required for subsequent activities seeking the County’s discretionary approval, if the County determines that all potential effects are within the program EIR scope. If a project could result in new or more severe impacts, a stand-alone CEQA document must be prepared. All subsequent projects would be subject to the mitigation measures in the draft EIR, which would be incorporated in the 2040 General Plan. Notably, and as explained in detail throughout the draft EIR, the County has determined that the mitigation proposed would adequately address the potential project-level impacts in many cases. The County will consider all significant and unavoidable impacts and must adopt a Statement of Overriding Considerations prior to adopting the 2040 General Plan.

Refer to Master Response MR-7 which explains in detail why recirculation of the draft EIR is not required.

O5-9 The commenter’s dissatisfaction with the presentation of areas of known controversy is noted. However, as approximately half of all letters received on the draft EIR’s Notice of Preparation (NOP) related to these two topics (i.e., climate change and greenhouse gases, and the effects of continued oil and gas extraction), the County determined that they rise above the other 14 topics listed on page 1-4 of the draft EIR as key areas of concern. As illustrated by the issues raised in comment letters on the draft EIR and addressed throughout this final EIR, these remain primary areas of controversy.

O5-10 The comment states that the draft EIR includes an incomplete list of responsible and trustee agencies. The County has not failed to proceed in a manner required by law. The draft EIR includes a list of potential responsible and trustee agencies. It does not purport to, nor is it required to, provide a complete list of all potential agencies that could have discretionary authority over aspects of implementing the 2040 General Plan or jurisdiction over resources that could be affected by the plan.

The comment expresses specific concern that the California Geologic Energy Management Division of the California Department of Conservation (CalGEM) and the California Coastal Commission were not listed as responsible agencies; and that the California State Lands Commission, the California Department of Fish and Wildlife (CDFW), California Department of Parks and Recreation, and Ventura County Air Pollution Control District (VCAPCD) were not listed as trustee agencies. However, the California State Lands Commission, CDFW, and California Department of Parks and Recreation are all recognized as trustee agencies in the discussion on page 1-5 of the draft EIR. The California Coastal Commission was not listed as a potential responsible agency because the project

does not include changes to the County’s Coastal Area Plan. The Department of Conservation, which includes CalGEM, is listed as a responsible agency. The County has edited the final EIR as follows to clarify that CalGEM is part of the Department of Conservation and that it has responsibility for approving oil and gas well activities (Section 1.4 “Lead, Responsible, and Trustee Agencies” located on page 1-5):

Responsible agencies are agencies other than the lead agency that have discretionary power over carrying out or implementing a specific component of the general plan or for approving a project (such as an annexation) that implements the goals and policies of the general plan. Agencies that may be responsible agencies include: the California Department of Transportation, which has responsibility for approving future improvements to the state highway system; the Department of Conservation, which has responsibility for approving mining Reclamation Plans pursuant to the Surface Mining and Reclamation Act and through its California Geologic Energy Management Division (CalGEM), responsibility for approving oil and gas wells; and the Local Agency Formation Commission of Ventura County, which has responsibility for approving any annexations within the county that might occur over the life of the 2040 General Plan.

The draft EIR was distributed to potential responsible and trustee State agencies through the Governor’s Office of Planning and Research, which provided the draft EIR to 25 state agencies, including the five specifically referenced in the comment. VCAPCD was notified of the draft EIR by the County directly. This satisfies the County’s obligation to perform consultation on the draft EIR under Section 15086(a) of the State CEQA Guidelines to consult with, and obtain comments from, responsible agencies, trustee agencies, and any other agencies with legal jurisdiction or authority over resources that may be affected by the project.

- O5-11 Refer to Master Response MR-2 for a discussion of the growth projections used in the draft EIR and refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.
- O5-12 The commenter’s opinion about the format of the draft EIR is noted. Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- O5-13 The comment states that the areas of controversy are a result of the County’s proposed policies regarding oil and gas operations. Refer to response to comment O5-9 regarding identification of areas of controversy. Areas of controversy are related to implementation of the proposed project, not existing conditions.

As acknowledged in this comment, the County has proposed policies in the 2040 General Plan that would specifically affect the future discretionary oil and gas extraction. These policies have been critiqued by commenters as both proposing too many obstacles for oil and gas development and allowing too much oil and gas extraction to occur. As such, the County has determined this is a key area of controversy to consider when evaluating the environmental effects of the 2040 General Plan.

O5-14 The description of the 2040 General Plan provided in Chapter 3, “Project Description,” in the draft EIR satisfies the requirements of CEQA. The project description is only required to include a general description of the project’s technical, economic, and environmental characteristics. Key aspects of the 2040 General Plan, including the land use diagram, are summarized in Chapter 3 and specific policies and implementation used in the analyses in each of the 17 resource sections are provided within the impact discussion. The reader need not refer to the General Plan itself to find important components of the project or analysis. Refer to Master Response MR-2 for detailed discussion of the adequacy of the draft EIR project description. Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.

O5-15 The comment asserts that the description of the project in the draft EIR is inappropriately vague and provides three specific points of confusion to support this statement.

For a discussion of the land use diagram and land use designations, including the number of land use designations, refer to Master Response MR-2. By design, the 2040 General Plan does not result in an increase in the density or intensity allowed on any property. The excerpted text regarding “relatively higher density” has been taken out of context. For example, page 3-14 explains that “the land use diagram of the 2040 General Plan would concentrate future development of relatively higher intensity residential, commercial, mixed use, and industrial land uses within the Existing Community area designation (boundary) and the Urban area designation (boundary).” Therefore, density within these area designations would be higher relative to the land use designations applied in the remainder of the unincorporated county under the 2040 General Plan – not relative to existing conditions.

As explained further in response to comment O5-20, below, establishing the Parks and Recreation land use designation is evaluated throughout the draft EIR as a component of the 2040 General Plan. Beyond the parameters set in the 2040 General Plan (parcels within Existing Community, Area Plans, and Urban Centers within Areas of Interest) it would be inappropriate to speculate about the precise location and timing of subsequent general plan amendments that could utilize this new designation. Also refer to Master Response MR-2 for discussion of the Parks and Recreation land use designation.

O5-16 Chapter 3, “Project Description,” discusses the elements of the 2040 General Plan that promote consistency with the Guidelines for Orderly Development on page 3-8. Also on page 3-8, the document explains that the SOAR initiative’s

“Agricultural, Open Space, and Rural goals and policies are included in the 2040 General Plan with only technical, non-substantive revisions for clarification and internal consistency with the rest of the 2040 General Plan.” The land use diagram’s consistency with SOAR is explained on draft EIR page 3-5. Additional discussion of 2040 General Plan consistency with the Guidelines for Orderly Development and the SOAR initiative are provided in Master Response MR-2.

O5-17 Refer to response to comment O5-14 and Master Response MR-2 regarding the adequacy of the project description.

As explained in Chapter 3, “Project Description,” the 2040 General Plan would “guide future land use and resource decisions within the unincorporated areas of the county.” The topics addressed by policies contained in each of the elements are summarized in the draft EIR. The elements do not expressly “permit or prohibit development.” In the analysis that follows, the effects of implementing the 2040 General Plan are compared to existing (baseline) conditions. CEQA does not permit an evaluation of impacts based on a comparison to the existing general plan. A discussion of potential environmental effects of not adopting the 2040 General Plan and continuing to apply the existing general plan is provided in the discussion of the No Project Alternative in the draft EIR (refer to Section 6.5.1, “Alternative 1: No Project–No General Plan Update,” beginning on page 6-12 of Chapter 6, “Alternatives”).

The land use diagram and potential, future physical development that could occur with implementation of the 2040 General Plan are described. For more information about buildout assumptions and the likely extent of physical development, refer to Master Response MR-2. Also refer to Master Response MR-2 for discussion of how 2040 General Plan policies and implementation programs relevant to each resource topic (specifically, those relevant to the impact analysis performed under the significance criteria for that topic) are identified throughout the draft EIR in Sections 4.1 through 4.17.

O5-18 The comment states that the draft EIR project description does not include an estimate of General Plan buildout, without which the commenter questions how the impacts of such development can be analyzed. The draft EIR project description describes the growth projections used in the 2040 General Plan (pages 3-19 and 3-20). Chapter 4, “Environmental Impact Analysis, describes the assumptions used in the environmental impact analysis of the draft EIR, including the use of growth projections and buildout assumptions to analyze the environmental impacts of 2040 General Plan implementation (pages 4-1 and 4-2). Refer to Master Responses MR-2 for more discussion of the draft EIR growth projections and buildout assumptions.

The comment also expresses concern with the level of information provided in Chapter 3, “Project Description,” regarding the locations where relatively higher density land use could occur. The full sentence on page 3-19 provides key context: “Under the 2040 General Plan relatively higher intensity residential (Very Low Density, Low Density, Medium Density, Residential Planned Development, Coastal Planned Development, Residential Beach), commercial (Commercial and Commercial Planned Development), mixed use, and industrial land use

designations would apply to approximately 1.2 percent of land in the unincorporated county.” The location of these land use designations is depicted on Figures 3-2a and 3-2b, the allowed density, lot size, and lot coverage are provided in Table 3-1. Sufficient information is provided to fully analyze the potential effects of implementing the 2040 General Plan.

O5-19 The comment states that the draft EIR project description does not mention the County’s Local Coastal Program nor its relationship to the 2040 General Plan. Ventura County’s Coastal Area Plan and the Coastal Zoning Ordinance together constitute the "Local Coastal Program" (LCP) for the unincorporated portions of Ventura County’s coastal zone. The primary goal of the LCP is to ensure that the local government's land use plans, zoning ordinances, zoning maps, and implemented actions meet the requirements of, and implement the provisions and policies of, the Coastal Act at the local level. In addition to being an element of Ventura County’s LCP, the Coastal Area Plan is also an Area Plan for the unincorporated coastal portions of Ventura County and, as such, is part of the County's General Plan. However, as explained in Chapter 3, "Project Description," of the draft General Plan (page 3-10), the Coastal Area Plan was not updated as part of this general plan update. Modification of the LCP is not included in Chapter 3, "Project Description," because it is not a component of the project under evaluation (i.e., the 2040 General Plan). Because the project does not include changes to the Coastal Area Plan, it is not required to be evaluated in the EIR.

O5-20 The comment asserts that a zoning code update could be a reasonably foreseeable consequence of implementing the 2040 General Plan that was not analyzed in the draft EIR.

Chapter 3, "Project Description," of the draft EIR offers a detailed explanation of the land use designations proposed in the 2040 General Plan, which refines the existing land use designations to be consistent with existing zoning. As noted by the commenter, page 3-5 of the draft EIR indicates:

There is a new land use designation for "Parks and Recreation," which provides for parks and recreation facilities and associated recreation uses. There is no land currently in the Parks & Recreation designation. This new designation will be applied to parcels within Existing Community, Area Plans, and Urban Centers within Areas of Interest that provide for parks and recreation facilities and associated recreation uses to serve all residents in Ventura County. A new zone classification titled Parks and Recreation (REC) would also be established for parks and recreational uses in the Non-Coastal Zoning Ordinance and Coastal Zoning Ordinance that would be compatible with this land use designation and separate from the General Plan Update project as part of the 2040 General Plan’s implementation.

There is no land currently in the Parks and Recreation designation. This is a new designation that can be applied to parcels within Existing Community, Area Plans, and Urban Centers within Areas of Interest that provide for parks and recreation facilities and associated recreation uses (refer to page 3-14 of the

draft EIR). The creation of this land use designation and compatible zoning is an element of the 2040 General Plan analyzed throughout the draft EIR. In fact, addition of this land use designation is highlighted as a project element considered in the analysis on page 4-2 of the draft EIR under the subheading “Approach to the Environmental Analysis.” As summarized in Section 4.15, “Parks and Recreation,” of the draft EIR, in addition to establishing the Parks and Recreation land use designation, Policy LU-12.1 “requires the county to support development of parks and recreation facilities with areas designated as Existing Community, Area Plans, or Areas of Interest” (refer to page 4.15-14).

This new land use designation would allow the County to better categorize existing and proposed land uses. It would not change regulatory requirements for establishing parkland (such as the Quimby Act) or result in the direct conversion of land use. Furthermore, creating a zoning designation consistent with this land use would make it possible to apply this land use designation, but would not result in new or additional physical environmental effects beyond the impacts of establishing the land use designation itself.

A zoning ordinance implements a general plan by regulating development through specific standards and would not include any integral project components that have not already been evaluated as part of the draft EIR for the 2040 General Plan. This draft EIR includes a programmatic evaluation of potential adverse physical changes to the environment as a result of forecasted growth and future development under the 2040 General Plan, which includes the construction of new or expanded parks and recreation facilities to serve this growth and development. These environmental impacts are analyzed in Sections 4.1 through 4.17 of this draft EIR. As discussed herein, future development would be subject to applicable laws and regulations, the policies and implementation programs in the 2040 General Plan, and mitigation measures identified throughout this draft EIR. The physical environmental impacts that would result from development of new or expanded parks and recreation facilities are similar to the impacts of other types of future development that would be accommodated by the 2040 General Plan, as evaluated throughout the draft EIR. If a zoning code update is required, the reasonably foreseeable impacts of changes related to the new Parks & Recreation land use designation have been evaluated consistent with the requirements of CEQA. No violation of CEQA statutes or case law have occurred.

O5-21

The comment states that preparation of the draft EIR for the 2040 General Plan before the Housing Element is completed results in improper piecemealing and project segmentation. Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update. The draft EIR for the 2040 General Plan appropriately described the County’s adopted Housing Element and adequately analyzed conflicts with Regional Housing Needs Assessment (RHNA) requirements. Refer also to response to comment O5-4, above, for a discussion of piecemealing.

- O5-22 Refer to Master Response MR-6, which explains the County’s approach to utilizing the existing setting information in the Background Report. Also, see responses to later comments in this letter, below, that address specific resource topics. For example, response to comment O5-25 provides cross-references to the specific sections of the Background Report that contain the environmental setting pertaining to aesthetics.
- O5-23 Refer to Master Response MR-2 for an explanation of the growth projections and buildout assumptions employed in the draft EIR.
- O5-24 The commenter asserts that several types of regulations and programs need to be described in the regulatory setting. Regarding the regulatory setting for the draft EIR analysis of aesthetics impacts, the draft EIR does describe the regulatory setting for the impact analysis that was conducted. There is no requirement under CEQA for an EIR to describe regulations that are not relevant to the environmental impact analysis provided in the EIR.

Section 4.1, “Aesthetics,” of the draft EIR, under the heading “Regulatory Setting” refers the reader to Section 8.3, “Scenic Resources,” of the Background Report (draft EIR page 4.1-1). This 10-page subsection of the Background Report discusses the Scenic Highway Program, the Coastal Act, and applicable zoning ordinance provisions. The Background Report identifies Highway 33 – Jacinto Reyes Scenic Byway – as a designated scenic byway (page 8-64). A description of the California Scenic Highway System is also provided in Chapter 6, “Transportation and Mobility,” of the Background Report, and maps (Figure 6-5 and Figure 8-8) are provided in the report that identify portions of State highways in Ventura County that have either been designated as part of the California Scenic Highway Program or have been designated as being eligible for program designation.

The commenter also asserts that the aesthetics analysis is inadequate because it does not analyze whether the 2040 General Plan is consistent with the regulatory setting. Section 4.1 of the draft EIR evaluates the aesthetic impacts of the 2040 General Plan using the four thresholds of significance provided on page 4.1-13. These include whether implementation of the 2040 General Plan would:

- ▶ Physically alter a scenic resource (defined as aesthetically pleasing natural physical features) that is visible from a public viewing location (defined as any physical area accessible to the public and from which a scenic resource is visible);
- ▶ Substantially obstruct, degrade, obscure, or adversely affect the character of a scenic vista (defined as a viewshed that includes scenic resources) that is visible from a public viewing location (defined as any physical area accessible to the public and from which a scenic resource is visible);
- ▶ Create a new source of disability glare (a type of glare that ranges from causing temporary incapacity to causing damage to the eye) or discomfort glare (a type of glare that viewers find distracting and objectionable, but does

not cause damage to the eye) for motorists traveling along any road of the County Regional Road Network; or

- ▶ Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The draft EIR analysis of aesthetics impacts does describe in detail the role of the regulatory setting and proposed 2040 General Plan policies and implementation programs in avoiding or substantially lessening potential aesthetics impacts in the analysis performed under each of the thresholds of significance (Impacts 4.1-1 through 4.1-4, pages 4.1-18 through 4.1-24). Further, consistency with applicable regulations would be ensured through the County's discretionary approval of projects which is a standard practice currently in place. The comment does not specifically address the actual aesthetics impact analysis conducted in the draft EIR or the specific impact conclusions reached under any of the thresholds of significance. No further response to this comment can be provided.

Refer to response to comment O5-25 for discussion of the draft EIR analysis of impacts to community character in Section 4.11, "Land Use and Planning," Impact 4.11-1, which evaluates whether 2040 General Plan implementation would result in physical development that is incompatible with land uses, architectural form or style, site design/layout, or density/parcel sizes within Existing Communities. Refer also to Master Response MR-6, which explains the County's approach to utilizing the existing setting information in the Background Report.

O5-25

The comment states that the draft EIR does not include the existing environmental setting, and the Background Report does not adequately describe existing conditions. Consistent with the County's adopted Initial Study Assessment Guidelines (ISAG), the draft EIR evaluates impacts to "community character" as a land use and planning topic that addresses visual aspects of the built environment, as follows. It provides a detailed analysis of whether implementation of the 2040 General Plan would result in physical development that is incompatible with land uses, architectural form or style, site design/layout, or density/parcel sizes within Existing Communities. The basis for this threshold of significance is described on page 4.11-2. This impact analysis is provided in draft EIR Section 4.11, "Land Use and Planning," in Impact 4.11-1 (pages 4.11-18 to 4.11-21). Existing community character is described in Section 3.5, "General Plan and Area Plan Land Use Designations," of the Background Report.

The introduction to Section 4.1, "Aesthetics," in the draft EIR refers the reader to Section 4.11 for a discussion of community character and explains that the analysis in the aesthetics section is focused on "potential impacts on the character of public views" (draft EIR page 4.1-1). Between Section 4.1 and 4.11, the draft EIR addresses impacts to the existing visual character of the unincorporated area, using somewhat different terminology than the commenter. Refer to the response to comment O5-24 for discussion of the draft EIR analysis of aesthetic impacts in Section 4.1, which includes detailed analysis of impacts to existing visual resources, which the County generally refers to as "scenic

resources.” Refer also to Master Response MR-6, which explains the County’s approach to utilizing the existing setting information in the Background Report.

O5-26

The introduction to Section 4.1, “Aesthetics,” in the draft EIR states: “Comments on the notice of preparation included concerns regarding...aesthetic impacts related to oil and gas development. These comments are addressed in this section, as appropriate.”

Although public comments received on the NOP frequently relate to oil and gas development (see response to comment O5-9 regarding areas of controversy), the EIR is intended to evaluate the effects of implementing the 2040 General Plan throughout the entire unincorporated area. For this reason, the draft EIR does not specifically discuss existing oil and gas facilities and their relationship to scenic resources. Nor is this required under CEQA as an agency is charged with evaluating the impacts of a projects on the environment, not existing facilities. The aesthetic impacts of future oil and gas development that could occur during the plan horizon are acknowledged in Impacts 4.1-1, 4.1-3, and 4.1-4. As described on page 4.1-12 of the draft EIR, the environmental setting for the analysis is provided in Section 8.3, “Scenic Resources,” of the Background Report.

O5-27

Thresholds of significance are the benchmark against which projects are evaluated to determine whether physical environmental changes that could be reasonably expected to result from project implementation would be “significant” as determined by the lead agency. The thresholds can be qualitative or quantitative, and the determination of significance can vary based upon context.

Public agencies are encouraged to develop and publish thresholds of significance that are used in the determination of the significance of environmental effects (State CEQA Guidelines, § 15064.7(b)). The current ISAG, last amended by the County in April of 2011, set forth the standard threshold criteria and methodology used in determining whether a project could have a significant effect on the environment. The ISAG were originally adopted in 1992 by the directors of those County agencies/departments responsible for evaluating environmental issues and by the County’s Environmental Quality Advisory Committee following a public outreach process that included public notification and workshops, and appropriate revisions. Similarly, all subsequent amendments to the ISAG have included public notification and review prior to their adoption in accordance with State CEQA Guidelines and the County’s Administrative Supplement to State CEQA Guidelines.

For the purpose of evaluating the potential environmental effects of implementing the 2040 General Plan, the thresholds of significance are based on the ISAG, as well as the checklist presented in Appendix G of the State CEQA Guidelines; best available data; and the applicable regulatory standards of the County and federal and state agencies with jurisdiction over the resources at issue. As explained in Section 4.1, “Environmental Impact Analysis” (page 4-1), and described in detail for each resource analysis, “deviation from the ISAG thresholds, which were established by the County to evaluate the impacts of individual projects, was sometimes necessary to appropriately consider the

programmatic nature of a general plan for the entire unincorporated area, and to incorporate the 2019 revisions to the Appendix G checklist.”

In each of the resource-specific sections of the draft EIR (Sections 4.1 through 4.17), the “Environmental Impacts and Mitigation Measures” subsection identifies the thresholds used to determine the level of significance of the environmental impacts for the resource topic, in accordance with State CEQA Guidelines Section 15126. These thresholds appropriately set the parameters for what is evaluated in the EIR.

As explained in responses to comments O5-24 and O5-25, Section 4.1, “Aesthetics,” in the draft EIR provides a discussion of potential impacts on the character of public views. Page 4.1-13 of the draft EIR explains that the thresholds of significance established in the draft EIR combine the County’s adopted ISAG with the 2019 revisions to the Appendix G checklist. Specifically, Impact 4.1-2 addresses whether implementation of the 2040 General Plan would have a significant aesthetic impact if it would substantially obstruct, degrade, obscure, or adversely affect the character of a scenic vista (defined as a viewshed that includes scenic resources) that is visible from a public viewing location (defined as any physical area accessible to the public and from which a scenic resource is visible).

Potential effects on visual character are discussed in both Impact 4.1-1 (Physically Alter a Scenic Resource that is Visible from a Public Viewing Location) and Impact 4.1-2 (Substantially Obstruct, Degrade, Obscure, or Adversely Affect the Character of a Scenic Vista that is Visible from a Public Viewing Location). Both impacts are determined to be less than significant. As summarized on page 4.1-25, “future development under the 2040 General Plan would not obstruct, degrade, obscure, or adversely affect the character of a scenic vista that is visible from a public viewing location, or adversely affect visual character.”

O5-28

The comment states that the thresholds of significance for agriculture and forestry resources are over inclusive. See response to comment O5-27, above, regarding thresholds of significance. Section 4.2, “Agriculture and Forestry Resources,” in the draft EIR provides a discussion of the project’s potential impacts on agriculture and forestry resources. Pages 4.2-3 and 4.2-4 of the draft EIR explain that the thresholds of significance established in the draft EIR combine the County’s adopted ISAG with the 2019 revisions to the Appendix G checklist. Implementation of the 2040 General Plan would have a significant impact on agricultural and forestry resources if it would

Result in the direct and/or indirect loss Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance (defined as “Farmland” or “Important Farmland” in CEQA, pursuant to guidance in CEQA Section 21095 and State CEQA Guidelines Appendix G). Any project that would result in the direct and/or indirect loss of agricultural soils meeting or exceeding the following criteria would be considered as having a significant impact: [see table provided on page 4.2-4 of the draft EIR]

Thus, while the commenter is correct that CEQA does not include Farmland of Local Importance in its definition of “Farmland” or “Important Farmland,” the County’s adopted ISAG does include Farmland of Local Importance in its threshold of significance criteria (ISAG, page 47).

Potential effects on Important Farmland are discussed under Impact 4.2-1 (Loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance). This impact would be potentially significant and mitigation measures are provided (see draft EIR pages 4.2-9 through 4.2-17). Even with mitigation, the draft EIR concludes that the impact would be significant and unavoidable because “[e]stablishing agricultural conservation easements would conserve Important Farmland within the county but would not prevent the loss of existing Important Farmland. There are no actions or policies that the County could feasibly mandate to fully replace the loss of Important Farmland.”

Refer to Master Response MR-5 for discussion of the location of Important Farmland in the unincorporated area and the feasibility of Mitigation Measure AG-2. Refer to Master Response MR-3 for discussion of the County’s regional housing needs and 2021-2029 Housing Element Update.

O5-29

Mitigation Measure AG-1 is clear and enforceable, as described in the draft EIR. This mitigation measure requires the County to condition project-level approvals of discretionary development on Important Farmland to avoid direct loss of Important Farmland to the extent feasibly possible. As explained on page 4.2-17 of the draft EIR, the overall effectiveness of this mitigation measure will depend on the feasibility of avoiding conversion of Farmland at the individual project level. The draft EIR contemplates that there will be indirect and direct loss of Important Farmland in instances where avoiding conversion of Important Farmland is not feasible. Consequently, the draft EIR concludes that even with application of this mitigation measure, in combination with Mitigation Measure AG-2 (which requires project proponents to acquire agricultural conservation easements to provide compensatory mitigation for loss of Important Farmland where avoidance is infeasible), implementation of the 2040 General Plan would result in loss of Important Farmland. As a result, the draft EIR concludes that this impact would be significant and unavoidable.

The case cited commenter, *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260 (“*Preserve Wild Santee*”), at page 281, states that,

while the EIR contains measures to mitigate the loss of Quino [checkerspot butterfly] habitat, the EIR does not describe the actions anticipated for active management of the Quino within the preserve. The EIR also does not specify performance standards or provide other guidelines for the active management requirement.

The court found this mitigation measure to be inadequate because the City improperly deferred formulation of measures to protect Quino habitat. Here, Mitigation Measure AG-1 is distinguishable from the project-level mitigation measure at issue in *Preserve Wild Santee*. Indeed, the *Preserve Wild Santee*

court specifically recognized the amount of detail available at the general plan stage is reduced, stating that, when the:

kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process (e.g., at the general plan amendment or rezone stage), the agency can commit itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of project approval. Where future action to carry a project forward is contingent on devising means to satisfy such criteria, the agency should be able to rely on its commitment as evidence that significant impacts will in fact be mitigated (*Preserve Wild Santee, supra*, at p. 280).

The requirement of Mitigation Measure AG-1 - to require avoidance of direct loss of Important Farmland to the extent feasible - is clearly, readily enforceable and entirely appropriate at this programmatic level of CEQA review.

As stated in Mitigation Measure AG-1 itself, the County will implement this mitigation measure, along with Mitigation Measure AG-2 as needed, by imposing conditions of approval on projects requiring discretionary land use entitlements that could result in a direct loss of Important Farmland. The County has the legal authority to do so based on its constitutional police power derived from Article XI, Section 7 of the California Constitution.

- O5-30 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- O5-31 The comment asserts that the amount of construction that would occur under the 2040 General Plan is not included in the draft EIR. Table 4.3-1 of the draft EIR includes all land use development assumptions made to conduct emissions modeling. As described in the methodology on page 4.3-3, "Although the exact timing of construction activity over this period is unknown, for the purposes of modeling, it was assumed that development would occur gradually in equal annual increments over this time period." Appendix A of the draft EIR explicitly defines the assumed amount of development for each year of construction. No revisions to the draft EIR are required.
- O5-32 The comment asserts that air quality impacts are likely undercounted due to the assumed linear progression of construction. As discussed on page 4.3-3 of the draft EIR, "Construction-related emissions are difficult to quantify with a high degree of accuracy at the general plan level because such emissions are dependent on the characteristics and circumstances of future individual development projects that are not known at this time." Impact 4.3-2 concludes that construction-generated air pollutant emissions would be potentially significant and includes mitigation, as required by CEQA. On page 4.3-14, the draft EIR acknowledges that "as actual construction phasing is not known, it is possible that emissions may exceed or be below modeled emissions shown in Table 4.3-2." Further, the draft EIR concludes that "it is likely that emissions would exceed countywide and Ojai Valley thresholds at some point during buildout of the 2040 General Plan" (page 4.3-14). A revision to the construction

emissions modeling would not result in a change to the impact conclusion, which states that: “because ozone precursor emissions could remain above recommended thresholds and the fact that Ventura County is in nonattainment for ozone with respect to the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), this impact would be significant and unavoidable.” No revisions to the draft EIR are required.

- O5-33 Refer to Master Response MR-2 regarding growth projections and buildout assumptions used in the draft EIR.
- O5-34 Refer to Master Response MR-4 regarding feasibility of 2040 General Plan policies related to oil and gas.
- O5-35 Refer to response to comment O5-40, below, regarding thresholds of significance used in Section 4.3, “Air Quality.”
- O5-36 The comment asserts that adding “to the extent feasible” makes Mitigation Measures AQ-1a and AQ-1b ineffective. However, in this context “feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects. This definition is consistent with the definition of “feasible” set forth in CEQA (at Pub. Res. Code § 21066.1) and CEQA Guidelines section 15164. The County will be solely responsible for making this feasibility determination in accordance with CEQA. The text of Mitigation Measures AQ-1a and AQ-1b have been revised in the final EIR; the term “feasible” has been removed from Mitigation Measure AQ-1a and Mitigation Measure AQ-1b has been revised to include this definition. Additionally, Mitigation Measure AQ-1b has also been revised for consistency with the Ventura County Air Pollution Control District’s recommendation that measures to reduce construction-related emissions be incorporated into every project requiring discretionary County approval as explained in response to comment A14-2. Revisions made to Mitigation Measures AQ-1a and AQ-1b are provided below.

Mitigation Measure AQ-1a: New Policy HAZ-X: Construction Air Pollutant Best Management Practices

The County shall include the following new Policy HAZ-X in the 2040 General Plan.

Policy HAZ-X: Construction Air Pollutant Best Management Practices

Discretionary development projects that will generate construction-related air emissions shall be required by the County to incorporate best management practices (BMPs) to reduce emissions. These BMPs shall include the measures recommended by VCAPCD in its Air Quality Assessment Guidelines or otherwise to the extent applicable to the project.

~~The County shall ensure that discretionary development will, to the extent feasible, incorporate best management practices (BMPs) to reduce emissions to be less than applicable thresholds. These BMPs include but are not limited to the most recent VCAPCD recommendations for construction BMPs (per the Air Quality Assessment Guidelines or as otherwise identified by VCAPCD).~~

Mitigation Measure AQ-1b: New Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices

Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices

~~Applicants for future dDiscretionary development projects that would will generate construction-related air emissions that exceed applicable thresholds, will shall be required to include, but are not limited to, the following types of emission reduction mitigation measures and potentially others, as recommended by VCAPCD (in its Air Quality Assessment GuidelinesGuidance or otherwise), to the extent feasible and applicable to the project as determined by the County. The types of measures shall include but are not limited to: maintaining equipment per manufacturer specifications; lengthening construction duration to minimize number of vehicle and equipment operating at the same time during the summer months; use of Tier 3 at a minimum, or Tier 4 if commercially available diesel engines in all off-road construction diesel equipment, at a minimum; and, if feasible¹ using electric-powered or other alternative fueled equipment in place of diesel powered equipment (whenever feasible).~~

1. “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines section 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

Implementation of Mitigation Measures AQ-1a and AQ-1b would be required for future discretionary development under implementation of the 2040 General Plan. Because of the programmatic nature of the 2040 General Plan and the draft EIR, it is unknown at this time the details of future discretionary projects that

may require construction mitigation, to what extent the mitigation would be required, and what specific measures would be applicable and feasible for each individual project. In addition, future discretionary projects would be required to comply with Policy HAZ-10.12, which states: “The County shall require that discretionary development that would have a significant adverse air quality impact shall only be approved if it is conditioned with all reasonable mitigation measures to avoid, minimize or compensate (offset) for the air quality impact. The use of innovative methods and technologies to minimize air pollution impact shall be encouraged in project design.” The County will apply Mitigation Measures AQ-1a and AQ-1b to achieve the provisions of Policy HAZ-10.12.

O5-37

The comment correctly points out that the first two bullets of Mitigation Measure AQ-2b, Implementation Program HAZ-X: Fugitive Dust Best Management Practices, are duplicative. The County agrees with this comment and in response to this comment, Mitigation Measure AQ-2b has been revised to remove the duplicative bullet point (page 4.3-15). Mitigation Measure AQ-2b has also been revised for consistency with the Ventura County Air Pollution Control District’s recommendation that measures to reduce construction-related fugitive dust be incorporated into every project requiring discretionary County approval:

Mitigation Measure AQ-2b: New Implementation Program HAZ-X: Fugitive Dust Best Management Practices

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program HAZ-X: Fugitive Dust Best Management Practices

~~Applicants for future d~~Discretionary development projects that which will generate construction-related fugitive dust emissions that exceed applicable thresholds will shall be required by the County to include, but are not limited to, the types of mitigation dust reduction measures recommended by VCAPCD’s in its Air Quality Assessment Guidelines, or otherwise, to the extent feasible and applicable to the project such as:

- ~~▶ The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excess amounts of dust.~~
- ▶ The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excess amounts of dust.
- ▶ Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of watering (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.

- ▶ Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:
 - All trucks shall be required to cover their loads as required by California Vehicle Code Section 23114.
 - All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.
- ▶ Graded and/or excavated inactive areas of the construction site shall be monitored by (indicate by whom) at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.
- ▶ Signs shall be posted on-site limiting traffic to 15 miles per hour or less.
- ▶ During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with VCAPCD when winds are excessive.
- ▶ Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.
- ▶ Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.

O5-38

Regarding the thresholds of significance used in the analysis, refer to response to comment O5-40.

The comment asserts that the draft EIR fails to apply all feasible mitigation to air pollutant emissions and does not explain why additional feasible mitigation measures cannot be identified to reduce impacts to less than significant. The air quality analysis in the draft EIR is consistent with VCAPCD guidance and recommended thresholds. Consistent with VCAPCD guidance, Mitigation Measures AQ-1a, AQ-1b, AQ-2a, and AQ-2b include all feasible construction mitigation. Implementation of the best management practices included in these mitigation measures typically achieves a reduction in particulate matter emissions (both PM₁₀ and PM_{2.5}) of up to 75 percent (Sacramento Metropolitan Air Quality Management District 2020:3-9). Further, the comment does not suggest any additional mitigation measures that could be added to the draft EIR. No additional feasible mitigation has been provided by VCAPCD or the commenter, and no additional feasible mitigation has otherwise been identified, to reduce construction-related impacts. The proposed 2040 General Plan policies are not used to reduce Impact 4.3-3 to a less-than-significant level, as all policies cannot be assumed to successfully reduce individual discretionary projects' emissions below VCAPCD thresholds, particularly the more stringent thresholds for Ojai Valley. Because of the programmatic nature of the draft EIR, it is unknown what individual discretionary projects may require mitigation for operational emissions and to what extent. As stated on page 4.3-18 of the draft EIR: "Policies HAZ-10.5 and HAZ 10.12 would require that discretionary development with significant adverse air quality impacts only be approved if it is conditioned with all reasonable mitigation measures to avoid, minimize or compensate for the impact." The County has revised the language of Policy HAZ-10.12 to replace the reference to "reasonable" mitigation measures with "feasible" mitigation measures as shown in the Ventura County Planning Commission hearing materials for July 16, 2020 (see exhibit for "Planning Division Recommended Revisions to the 2040 General Plan"). To clarify the discussion provided in the draft EIR, the County has made the following revisions to the discussions of Policy HAZ-10.5 and HAZ-10.12 on page 4.3-18:

Policies HAZ-10.5 states that the County shall work with applicants for discretionary development projects to incorporate measures to reduce air pollution impacts and greenhouse gas emissions, such as bike facilities, solar water heating, solar space heating, electric appliances and equipment, and zero and near-zero emission vehicles, and HAZ 10.12 would require that discretionary development with significant adverse air quality impacts only be approved if it is conditioned with all feasible ~~reasonable~~ mitigation measures to avoid, minimize or compensate for the impact.

O5-39

The comment seeks additional analysis of health impacts associated with operational emissions. The comment asserts that only one statement is made regarding health impacts associated with reactive organic gases (ROG) and oxides of nitrogen (NO_x) emissions under Impact 4.3-3. In response to this comment, the County has added the following text to Impact 4.3-3 (page 4.3-17) to clarify and expand on the acute and chronic health impacts associated with emissions of ROG and NO_x that exceed VCAPCD thresholds of significance:

As shown in Table 4.3-4, operational activities would result in emissions of ROG and NOX that exceed the VCAPCD thresholds of significance for both countywide and the Ojai Valley. As discussed in the “Thresholds of Significance” section, VCAPCD developed these thresholds in consideration of achieving and maintaining the NAAQS and CAAQS, which represent concentration limits of criteria air pollutants and precursors needed to adequately protect human health. ~~Therefore, the 2040 General Plan’s contribution to operational criteria air pollutants and precursors could result in greater acute or chronic health impacts compared to existing conditions.~~

The addition of ROG and NO_x, which are precursors to ozone, could result in an increase in ambient concentrations in Ventura County and, moreover, increase the likelihood that ambient concentrations exceed the CAAQS and NAAQS. As summarized in the January 2020 Background Report, human exposure to ozone may cause acute and chronic health impacts including coughing, pulmonary distress, lung inflammation, shortness of breath, and permanent lung impairment. Also, the increase in operational emissions of PM₁₀ could impede air quality planning efforts to bring Ventura County into attainment of the CAAQS for PM₁₀. However, it would be misleading to correlate the levels of criteria air pollutant and precursor emissions associated with implementation of the 2040 General Plan to specific health outcomes to sensitive receptors. While the description of the effects noted above could manifest in the recipient receptors, actual effects on individuals depend on individual factors, such as life stage (e.g., older adults are more sensitive), preexisting cardiovascular or respiratory diseases, and genetic polymorphisms. Even armed with this type of specific medical information (which is confidential to the individual), there are wide ranges of potential health outcomes from exposure to ozone precursors and particulates, from no effect to the effects described above. Therefore, other than determining the types of health effects that could occur, it would be speculative to more specifically correlate exposure to ozone precursors and particulates from the 2040 General Plan to specific health outcomes to receptors. By evaluating emissions of air pollutants against VCAPCD’s thresholds, it is foreseeable that health complications associated with ozone and PM₁₀ exposure could be exacerbated to nearby sensitive receptors by operational emissions.

O5-40 The comment states that the draft EIR does not include an operational threshold for carbon dioxide, PM₁₀, or PM_{2.5}. See response to comment O5-27, above, regarding thresholds of significance. As discussed on page 4.3-5 of the draft EIR, “Specifically, ISAG Section 1 states that the air quality assessment guidelines published by VCAPCD should be used for determining thresholds of significance for air quality impacts.” Regarding the evaluation of particulate matter (both PM₁₀ and PM_{2.5}), VCAPCD’s Air Quality Assessment Guidelines (AQAG) state:

Occasionally, the District may recommend that a project’s potential to affect ambient particulate concentrations be analyzed with an appropriate air pollutant dispersion computer model. The purpose of such an analysis

is to help determine if the amount of dust that will be generated by project-related activities will cause an exceedance of an ambient particulate air quality standard... If the District recommends a particulate modeling analysis, it will provide guidance as to appropriate models and modeling protocols (VCAPCD 2003:6-2).

VCAPCD does not recommend a threshold for every discretionary development project. In neither its NOP scoping comment letter nor its draft EIR comment letter did VCAPCD recommend ambient particulate concentration analysis. However, Mitigation Measures AQ-2a and AQ-2b in the draft EIR aim to reduce fugitive dust emissions associated with construction activities for all future discretionary projects.

Regarding the evaluation of carbon monoxide (CO), VCAPCD has removed its requirement to conduct CO hotspot modeling for discretionary development projects, which was specified in VCAPCD's NOP comment letter for the project (see Appendix A of the draft EIR). VCAPCD stopped monitoring ambient CO levels in early 2004, with the approval of the U.S. Environmental Protection Agency, because Ventura County is in attainment of the NAAQS and CAAQS for CO. The substantial reduction in CO concentrations is due to reductions in CO emissions from mobile sources with the addition of catalytic converters to all vehicles. While CO hotspot modeling was not conducted for this project, it was evaluated for its potential to exceed the CAAQS and NAAQS, which is recommended by VCAPCD. As stated in the AQAG:

The location of a development project is a major factor in determining whether it will cause or be impacted by localized, non-ozone air quality impacts. The potential for adverse localized, non-ozone air quality impacts increases as the distance between the source of such emissions and sensitive populations decreases (VCAPCD 2003:6-1).

Implementation of the 2040 General Plan would result in individual developments throughout the unincorporated area, not in a single location and thus, any CO emissions attributed to individual developments would be highly localized. As noted on page 4.3-20, of the draft EIR, "Ventura County is in attainment for CO and is not projected to exceed CAAQS or NAAQS within the SCCAB..."

Thus, the draft EIR appropriately addressed the project's potential operational impacts related to particulate matter (both PM₁₀ and PM_{2.5}) and CO, per the AQAG published by VCAPCD.

O5-41

The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopted a final 2040 General Plan. Refer to Master Response MR-4, Section MR-4.A, "County's Authority to Regulate Oil and Gas Development," regarding the policy issues raised by this comment.

O5-42 The comment requests that the draft EIR state that operational emissions of criteria air pollutant would exceed VCAPCD thresholds prior to the application of mitigation measures. Page 4.3-19 of the draft EIR states: “Because Ventura County is in nonattainment for ozone with respect to the CAAQS and NAAQS and is in nonattainment for PM₁₀ with respect to the CAAQS, future development under the 2040 General Plan could contribute to the existing nonattainment status. This impact would be potentially significant.” Impact 4.3-3 indeed makes a significance determination based on the emissions reported in Table 4.3-4 prior to discussing mitigation. No revisions to the draft EIR are required.

O5-43 In Section 4.3, “Air Quality,” Impact 4.3-3 (Result in a Net Increase in Long-Term Operational Criteria Air Pollutant and Precursor Emissions That Exceed VCAPCD-Recommended Thresholds) is found to result in a significant and unavoidable impact. Page 4.3-19 of the draft EIR offers this explanation:

Because Ventura County is in nonattainment for ozone with respect to the CAAQS and NAAQS and is in nonattainment for PM₁₀ with respect to the CAAQS, future development under the 2040 General Plan could contribute to the existing nonattainment status...The 2040 General Plan policies described above require implementation of all feasible mitigation measures for all discretionary development projects. While individual projects may be able to reduce emissions to levels below applicable thresholds, the total emissions attributable to future development under the 2040 General Plan would exceed VCAPCD’s thresholds and would be a considerable contribution to cumulative air pollutants in the region. No additional feasible mitigation is available to reduce this impact.

The County has demonstrated a good faith effort to identify, evaluate, and mitigate significant impacts. The commenter does not offer any feasible mitigation measures that should be included. There is no improper deferral of mitigation related to increasing emission of criteria air pollutants that exceed VCAPCD thresholds.

O5-44 Refer to Master Response MR-4, Section MR-4.H, “Buffers (Setback),” regarding the findings and conclusions related to setbacks.

O5-45 Refer to Master Response MR-6, which explains the County’s approach to utilizing the existing setting information in the Background Report. The comment does not identify what relevant aspects of the regulatory setting are missing from the EIR. Thus, no further response can be provided.

The second portion of this comment states that there is no single list of sensitive species, but instead there is a list presented in the Background Report (draft EIR Appendix B) and additions to the list included in draft EIR Section 4.1, “Biological Resources.” The Background Report contains full lists of special-status plants and wildlife that may occur in Ventura County based on the best available scientific information in November 2016 (pages 8-32 to 8-44). The draft EIR provides updates to those lists based on updated queries of relevant databases performed during draft EIR preparation in 2019, which resulted in the addition of 75 special-status plant species and 10 special-status wildlife species (refer to

draft EIR Table 4.4-1 starting at page 4.4-2 and Table 4.4-2 starting at page 4.4-7). Discretionary projects under the 2040 General Plan would provide updates to these lists, based on standard practices currently in place, that reflect the best available information at the time the project is proposed and for the relevant project area. It is likely that the number and status of special status plant and wildlife species in the county will change during the approximately 20-year planning period of the 2040 General Plan.

O5-46

The comment states that the draft EIR impermissibly defers analysis of wildlife nursery sites to future analysis. The environmental setting in Section 4.4, “Biological Resources,” discusses native wildlife nursery sites and explains that these sites “are not mapped for the plan area and would need to be identified and evaluated at a project-specific level” (draft EIR page 4.4-10). Analysis is appropriately provided, however, in Section 4.4.2, “Environmental Impacts and Mitigation Measures,” in Impact 4.4-4 (Interfere with Resident or Migratory Wildlife Corridors or Native Wildlife Nursery Sites) beginning on page 4.4-30 of the draft EIR.

Mapping all potential wildlife nursery sites throughout the unincorporated county would be infeasible and unnecessary for evaluation of the 2040 General Plan because these resources are not static and could change during the 20-year plan horizon and the precise location of future development is unknown at this time. Instead, the draft EIR identifies prescriptive mitigation with clear performance criteria to address the potential effects of future discretionary development proposals. Through a proposed implementation program outlined in Mitigation Measure BIO-1, the County would update the Biological Resources Assessment report criteria in the ISAG to evaluate discretionary development that could potentially impact nursery sites. Compensatory mitigation may include restoration of native wildlife nursery sites, preserving the resources through a conservation easement at a sufficient ratio to offset the loss of acreage and habitat function, or purchasing credits at an existing authorized mitigation bank or in lieu fee program (see pages 4.4-23 through 4.4-25 of the draft EIR). As explained on page 4.4-33:

[T]his mitigation measure would routinely reduce project-level impacts to less than significant. However, due to the wide variety of future project types, site conditions, and other circumstances associated with future development, it is possible that there may be instances in which this mitigation measure would not reduce impacts to a less than significant level. Therefore, this impact would be **significant and unavoidable**.

O5-47

Section 4.4, “Biological Resources,” explains that CEQA requires a lead agency to evaluate potential for a project to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. However, because no habitat conservation plans or natural community conservation plans have been adopted within the plan area of the 2040 General Plan, there is no potential for conflict. Therefore, the potential for impact is not evaluated further. Potential for conflict with local policies or ordinances protecting biological resources are evaluated in Impact 4.4-5. Impacts related to potential conflicts with local policies

or ordinances protecting biological resources would be less than significant (draft EIR page 4.4-34).

For clarity, page 4.4-14 is revised as follows:

ISSUES NOT DISCUSSED FURTHER

Consistency with Adopted Habitat Conservation Plans

No habitat conservation plans or natural community conservation plans have been adopted within the plan area of the 2040 General Plan. There would be no impact due to conflict with conservation plans or natural community conservation plans. This issue is not discussed further.

- O5-48 The comment conflates language explaining the typical process of discretionary development approval from the discussion in Section 4.4, “Biological Resources” to mistakenly assert that the draft EIR concludes that impacts to special-status species would be less than significant. In fact, the draft EIR does not conclude that impacts would be less than significant based on compliance with regulations. The draft EIR concludes that impacts on special-status species and habitat (Impact 4.4-1); riparian habitat, sensitive plant communities, Environmentally Sensitive Habitat Areas (ESHA), coastal beaches, sand dunes, and other sensitive natural communities (Impact 4.4-2); wetlands and other waters (Impact 4.4-3); and wildlife corridors and nursery sites (Impact 4.4-4) are all determined to be significant and unavoidable precisely because adherence to local, State, and federal requirements may not result in impacts that are less than significant for all potential discretionary development in the county through 2040.
- O5-49 This comment states that mitigation is not provided to address the impact of invasive nonnative species, which was introduced in Impact 4.4-1 of the draft EIR. Mitigation Measure BIO-1 (New Implementation Program COS-X: Protection of Sensitive Biological Resources) has been edited to incorporate mitigation to prevent the spread of invasive plants, noxious weeds, and invasive wildlife. Refer to response to comment A3-5 for the full revision to Mitigation Measure BIO-1.
- O5-50 The comment states that the draft EIR impermissibly defers responsibility for imposing biological resource mitigation for impacts to riparian habitats to the resource agencies. As discussed above, the draft EIR has not relied on future review by the resource agencies to reduce biological impacts to a less-than-significant level. Refer to response to comment O5-48. The comment references text describing the existing regulatory requirements in the analysis of potential impacts to riparian habitat, sensitive plant communities, ESHA, coastal beaches, sand dunes, and other sensitive natural communities (Impact 4.4-2). The discussion acknowledges the role of the resource agencies in the review and approval of future discretionary development, provides feasible mitigation, and concludes that the impact would be significant and unavoidable because there is a possibility that the mitigation alone will not fully address all impacts “due to the wide variety of future project types, site conditions, and other circumstances associated with future development” (draft EIR page 4.4-28).

- O5-51 This comment states that the draft EIR “implies” that focused surveys for sensitive habitat, avoidance measures, and compensation are required, but that there is no mitigation included that requires it. Impact 4.4-2 on pages 4.4-25 through 4.4-27 includes implementation of Mitigation Measure BIO-1, which is included in full text under Impact 4.4-1 on pages 4.4-23 through 4.4-25. Mitigation Measure BIO-1 includes requirements for reconnaissance-level and focused surveys for sensitive habitats, avoidance measures for these resources, and compensatory mitigation requirements. Impact 4.4-3 and 4.4-4 are handled in the same manner for the respective resources addressed. This issue has been addressed and further response is not required. Refer to response to comment A3-5 for the full text of revised Mitigation Measure BIO-1, which addresses the issues raised by this comment.
- O5-52 Impacts related to historical, archaeological, tribal cultural, and paleontological resources were evaluated on pages 4.5-12 through 4.6-26 of the draft EIR and were determined to be significant and unavoidable. As explained in Impacts 4.5-1 through 4.5-4, protection of resources may not always be feasible, as it is possible that both known and unknown resources could be damaged, altered, or removed as a result of future development under the 2040 General Plan. These significant and unavoidable impact conclusions were determined because it cannot be known at this time, and would be speculative to determine, that implementation of Mitigation Measures CUL-1a, CUL-1b, CUL-1c, CUL-2, CUL-3, CUL-4, or CUL-4 would reduce all potential impacts associated with historical, archaeological, tribal cultural, and paleontological resources to less-than-significant levels. Refer to response to comment O5-6 and O5-8 for additional information related to appropriate level of detail for programmatic analysis of the 2040 General Plan.
- O5-53 The comment asserts that the discussion of environmental settings in the draft EIR energy section and 2040 General Plan are incomplete and does not clearly describe the energy consumption, energy mix, and energy efficiency under the current general plan. The comment also points to an EIR produced by another county as an example of an adequate discussion.
- The draft EIR provides existing natural gas and electricity consumption in the unincorporated county (total and per capita) to inform the analysis conducted in Section 4.6, “Energy.” Refer to Impact 4.6-1 (Result in the Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources or Conflict with or Impede State or Local Plans for Renewable Energy or Energy Efficiency) starting at page 4.6-18. Refer to also Table 4.6-2 (page 4.6-20). The comment does not address what specific information or data are missing from the draft EIR analysis of energy impacts. No further response can be provided.
- O5-54 The comment states that the draft EIR fails to apply two required energy significance thresholds identified in Appendix G of the State CEQA Guidelines. Also, that these thresholds were conflated into a single analysis that concerned only wasteful consumption and did not evaluate conflicts with state and local plans relating to energy.

Both thresholds were applied in a single impact analysis because the state plans and policies for energy efficiency and renewable energy in California are created by the California Energy Commission under authority of the Warren Alquist Act. As stated in the draft EIR, this Act was established to reduce the wasteful, inefficient and unnecessary use of energy resources. Because the terms “wasteful, inefficient and unnecessary” are not explicitly defined in State regulations, the 2040 General Plan’s consistency with policies and plans developed under the Warren Alquist Act, such as the California Energy Commission’s Integrated Energy Policy Report, State energy codes, and Renewable Portfolio Standards indicates that the 2040 General Plan is supporting the state’s vision of actions necessary to abate the wasteful, inefficient and unnecessary consumption of energy resources. The assertion that “no analysis is provided relating whether to 2040 General Plan conflicts with state or local plans relating to energy” is inaccurate. The analysis of Impact 4.6-1 on page 4.6-21 of the draft EIR evaluates the proposed 2040 General Plan’s consistency with the Integrated Energy Policy Report, which is the State’s guiding document on statewide energy resource planning. Page 4.6-22 of the draft EIR evaluates the 2040 General Plan’s consistency with local energy goals adopted by the Ventura County Regional Energy Alliance.

O5-55 The comment asserts that the draft EIR fails to adequately identify policies that will reduce impacts relating to wasteful and inefficient energy consumption and that the energy impact conclusion is unfounded and not supported with evidence. It additionally asserts that there are only two proposed policies (COS-8.7 and COS-U) for ensuring that there is no wasteful or inefficient energy consumption across the entire 2040 General Plan area for the next 20 years.

The energy section was produced in compliance with the thresholds included in Appendix G of the State CEQA Guidelines and the draft EIR impact conclusion of less than significant is supported by substantial evidence, with the draft EIR discussion starting at page 4.6-20 listing numerous policies and programs beyond Policy COS-8.7 and Implementation Program COS-U that support reducing energy waste and inefficiency. The draft EIR does not identify additional policies to “reduce impacts,” as the conclusion is that a less-than-significant impact would result from implementation of the 2040 General Plan. Therefore, no additional response is needed.

O5-56 The comment states that the draft EIR’s conclusions regarding consistency of the 2040 General Plan with statewide renewable energy plans and policies on pages 4.6-20 and 4.6-21 are not supported by substantial evidence because specific policies are not listed or evaluated.

As explained in the draft EIR, the “State’s planning for renewable energy is expressed through laws and regulations that mandate the deployment of renewable and clean energy generation at the building and utility scales” (page 4.6-20). The analysis explains that the 2040 General Plan would not conflict with or hinder the County’s compliance with these regulations. In fact, the analysis provides specific examples of how the 2040 General Plan would support attaining State standards. Specific policies cited in the analysis include the 2019

Building Energy Efficiency Standards, the State's renewable portfolio standards, and local goals set by Ventura County Regional Energy Alliance.

The state's overarching policy for renewable energy is the renewable portfolio standards which apply to electric utilities, not local governments. Renewable energy requirements for new construction are embedded into the mandatory energy code requirements for residential buildings in Title 24 Part 6 of the 2019 California Energy Code, which the County is currently enforcing through its building permit process. Statewide policies for renewable energy are also found in the 2019 Integrated Energy Policy Report, which guides State agency decision making, and within the Integrated Resource Management Plans of electric utilities, which guide decisions made by those entities. These policies and plans are described in the energy analysis found in Section 4.6, "Energy," of the draft EIR. The commenter does not provide any specific examples of other State plans for renewable energy believed to be missing from the analysis. Therefore, no revisions to the draft EIR have been made in response to this comment.

- O5-57 Refer to response to comment O5-53, above, which explains that the environmental setting included in the Background Report and draft EIR is adequate for the draft EIR's analysis of energy impacts. The comment also expresses concerns about the employment data provided for the oil and gas industry in the Background Report. This information is largely outside the scope of the analysis in the draft EIR because economic and social changes are not considered significant effects on the environment. These factors are considered by public agencies together with technological and environmental factors when "deciding whether changes in a project are feasible to reduce or avoid significant effects on the environment identified in the EIR" (State CEQA Guidelines Section 15131[c]). While this information must be in the record to allow the lead agency to consider the factors in reaching a decision, there is no requirement that it be incorporated into the EIR. Refer to Master Response MR-6 for additional discussion about how the Background Report was used to inform the analysis in the draft EIR.
- O5-58 Refer to Master Response MR-6, which explains the County's approach to utilizing the existing setting information in the Background Report. The draft EIR (on page 4.7-1) refers readers to the specific section of the Background Report (i.e., Section 11.1, "Geologic and Seismic Hazards") where the regulatory setting for geologic hazards can be found. The comment does not identify what relevant aspects of the regulatory setting are missing from the EIR. Thus, no further response can be provided.
- O5-59 The comment asserts that the GHG reduction targets derived for the County are not based on substantial evidence and that the 2040 General Plan uses the same reduction targets as the State. Targets for reductions in mass GHG emissions are based on a local emissions inventory. These are aligned with State reduction targets and goals, as addressed further in Master Response MR-1.C.
- O5-60 The comment suggests that two threshold options presented in the GHG analysis of the draft EIR are unsubstantiated and that they are based on 2020 targets that are inappropriate. The two options included in VCAPCD's *Greenhouse Gas*

Thresholds of Significance Options for Land Use Development Projects in Ventura County are described in the draft EIR to set a context for local interpretations of GHG significance thresholds. However, because they are based on 2020 targets, the analysis and impact conclusions of the draft EIR do not rely on either option presented for significance determination. As stated on page 4.8-11 of the draft EIR, “The thresholds used to analyze potential environmental impacts in this draft EIR are based on the criteria set forth in Appendix G, Section VIII with the additional sections of the State CEQA Guidelines described in the previous headings used as indicators to determine consistency with the overarching objectives sought by the criteria.” The significance thresholds used in the draft EIR include whether implementation of the 2040 General Plan would:

- ▶ Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- ▶ Conflict with an applicable plan, policy, or regulation for the purpose of reducing the emissions of GHGs.

No revisions to the draft EIR have been made in response to this comment.

O5-61

The comment asserts that Policies COS-7.2, COS-7.4, and COS-7.7 and Implementation Program COS-M are likely preempted by federal law, violate existing property rights or are infeasible, and that the draft EIR analysis of GHG emissions is erroneous because it includes these policies and program. This comment has been noted by the County; however, the comment does not elaborate on which federal law, types of property rights, or indicators of feasibility could potentially be affected by these policies and this program. Nor does the comment explain why the draft EIR GHG emissions analysis is “erroneous” because it includes these policies and this program. The draft EIR properly analyzes the physical environmental consequences of implementation of the 2040 General Plan, including the above-mentioned policies and program. Also refer to Master Response MR-4 regarding the feasibility of 2040 General Plan policies related to oil and gas.

O5-62

The comment questions why GHG reductions are shown for 2030 when the horizon year of the General Plan is 2040. As discussed on page B-13 in Appendix B, “Climate Change,” of the Draft 2040 General Plan, “The GHG Strategy is primarily focused on achieving the 2030 target and making substantial progress in achieving the longer-term post-2030 goals.” This is because the State has only set legislatively mandated GHG reduction targets for 2020 and 2030. The draft EIR provides GHG emissions forecasts (Table 4.8-2) and reduction targets for 2030 and 2040 (Table 4.8-3) but, as described on page 4.8-39 of the draft EIR, “The actual benefit accrued for many of these policies and implementation programs cannot be quantified at this time and in advance of 2040 General Plan adoption because data are not available or the degree to which residences and businesses are likely to participate is unknown.”

The comment also asserts that the 2040 General Plan should be considered for its consistency with the State's reduction targets as applied to 2040. As shown in Table 4.8-3 on page 4.8-7 of the draft EIR, GHG reduction targets were determined in 10-year increments, including 2020, 2030, 2040, and 2050. The 2040 reduction target developed for the County is based on an interpolation between the State-mandated 2030 target pursuant to SB 32 of 2016 and the long-term reduction goal for 2050 pursuant to EO S-3-05. As stated on page 4.8-50 of the draft EIR: "The State has not developed a plan or approach identifying the policies needed to meet the State's post-2030 reduction targets." However, as addressed in Impact 4.8-2 of the draft EIR, the 2040 General Plan is evaluated for its consistency with applicable plans, policies, and regulations for the purpose of reducing GHG emissions. In regards to the State's GHG targets, page 4.8-50 of the draft EIR explains, "Implementation of the 2040 General Plan, in combination with State laws, regulations, and programs, would result in a downward GHG emissions trajectory for the county that supports the Statewide reduction target for 2030 identified in 2017 Scoping Plan and the State's post-2030 reduction goals, including the Executive Order S-3-05 goal of reducing Statewide emissions to 80 percent below 1990 levels by 2050." The draft EIR evaluates the project's consistency with the State's long-term GHG reduction goals. No revisions to the draft EIR have been made in response to this comment.

- O5-63 Refer to Master Response MR-6, which explains the County's approach to utilizing the existing setting information in the Background Report. The draft EIR (on page 4.9-1) refers readers to the specific sections of the Background Report (i.e., Section 3.9, "Other Agency Plans;" Section 6.5, "Goods Movement;" Section 6.6, "Aviation Facilities and Services;" Section 11.3, "Wildfire Hazards;" Section 11.4, "Aviation Hazards;" Section 11.5, "Hazardous Materials;" and Section 12.2, "Climate Change Effects") where the regulatory setting for hazards, hazardous materials, and wildfire can be found. The comment does not identify what relevant aspects of the regulatory setting are missing from the EIR. Thus, no further response can be provided.
- O5-64 The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to Master Response MR-4, Section MR-4.A, "County's Authority to Regulate Oil and Gas Development," regarding the policy issues raised by this comment. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O5-65 The comment states that the analysis of Impact 4.9-1 does not consider the existing oil and gas operations and the potential impacts of new County policies. The analysis under Impact 4.9-1 (Create a Significant Hazard to the Public or the Environment Through the Routine Transport, Use, or Disposal of Hazardous Materials or Hazardous Waste) includes text describing the land use diagram of the 2040 General Plan. The percentage of land in the Rural and Open Space designations currently used for oil and gas exploration is not relevant to this discussion because the EIR analyzes the effects of future land uses under the 2040 General Plan.

Similarly, trucking of oil and gas is an existing practice in the County. There is no allegation of impact in the draft EIR. The EIR is not tasked with validating, or providing justification for, land use policies in the 2040 General Plan; rather, the EIR evaluates whether implementation of the 2040 General Plan land use diagram, policies, and implementation programs would result in potential environmental effects.

The physical effects of pipeline construction are evaluated throughout the draft EIR and are within the body of the potential ground disturbance assumed with implementation of the 2040 General Plan. The draft EIR explains that, “(p)roposed policies of the 2040 General Plan addressing flaring and trucking associated with new discretionary oil and gas wells could result in the construction and operation of new pipelines for the conveyance of oil, gas, or produced water.” (page 4.9-12) Although there are constraints on siting linear utilities, they are installed throughout the unincorporated county. For further discussion of the proposal to require new oil and gas wells subject to discretionary approval to use pipelines to transport oil and produced water, refer to Impact 4.12-4 (Result in the Loss of Availability of a Known Petroleum Resource That Would Be of Value to the Region and the Residents of the State) beginning on page 4.12-22 of the draft EIR and Master Response MR-4.

The determination of significance is based on compliance with State law, federal law, and 2040 General Plan policies and implementation programs that would substantially lessen potential impacts related to the use, storage, transport, or disposal of hazardous materials or hazardous waste. As stated in the comment, specific policies and implementation programs in the 2040 General Plan are cited in reaching this conclusion.

The analysis on page 4.9-12 of the draft EIR states:

In addition to existing State and federal laws and permitting processes, the 2040 General Plan would include several policies and implementation programs that would reduce potential impacts related to hazardous materials and hazardous waste. For example, Policies HAZ-5.1, HAZ-5.3, HAZ-5.4, HAZ-5.6, and HAZ-12.3 address hazardous materials by directing the County to manage its own hazardous materials and provide regulatory oversight for discretionary projects and all facilities that store, use, or handle hazardous materials. Policies HAZ-5.2, HAZ-5.5, HAZ-5.8, and HAZ-7.1 provide guidance for the location, operation, and management of discretionary developments, including oil and gas exploration and production sites such that future development would reduce potential impacts to public health and the environment. Implementation Program J protects people and the environmental from hazardous materials and waste by requiring all businesses that handle hazardous materials to prepare Hazardous Materials Business Plans and Hazardous Materials Response Plans to ensure that emergency response plans for potential inadvertent release of hazardous materials or waste are maintained and monitored. Implementation Programs K and L require County facilities that could be the source of a marine or onshore oil spill to share their prevention and response plans with regulatory and emergency agencies.

The term “substantial evidence,” as used in the State CEQA Guidelines (Section 15284), means “enough relevant information and reasonable inferences from this information that a fair argument can be made to support the conclusion.” The evaluation in Impact 4.9-1 provides substantial evidence to support the conclusion. No revisions to the draft EIR have been made in response to this comment.

- O5-66 The comment states that Impacts 4.9-2 and 4.9-3 reference County Policies HAZ-5.2, HAZ-5.5, HAZ-5.8, and HAZ-7.1 and Implementation Programs K and L, but does not analyze of how these policies and programs would reduce potential impacts. As described above in response to comment O5-65, these impact determinations are based on compliance with existing regulations in conjunction with the policies and programs proposed in the 2040 General Plan. Both impact discussions state that Policies HAZ-5.2, HAZ-5.5, HAZ-5.8, and HAZ-7.1 provide guidance for the location, operation, and management of discretionary developments, including oil and gas exploration and production sites, that would minimize the potential for adverse effects to people and the environment in the event of accidental spills. The conclusions reached in the draft EIR are supported by substantial evidence, providing decision-makers and the public with the information required by CEQA to support the statutory goals of the CEQA process. No revisions to the draft EIR have been made in response to this comment.
- O5-67 The comment states that the draft EIR does not consider impacts associated with prohibiting development in certain locations and impacts associated with water usage. The analysis of Impact 4.10-1, which begins on page 4.10-6 of the draft EIR, evaluates whether implementation of the 2040 General Plan would decrease the net quantity of a groundwater basin that is overdrafted or result in overdraft of a basin. Policy HAZ-2.1 limits land use in the regulatory floodway to open space, agriculture, or passive to low intensity recreational uses so that the floodway’s principle use is safe conveyance of floodwater. Through Policy HAZ-4.14, the County would not allow development in potential seiche hazard areas unless a geotechnical engineering investigation is performed and appropriate safeguards are incorporated into the project design.
- In both cases, the policies would apply to limited areas within or adjacent to surface waters that would not support substantial development and associated groundwater use. Therefore, an analysis of indirect effects on groundwater withdraw due to implementation of the policies is not included in the draft EIR.
- O5-68 The comment states that the draft EIR does not support its conclusions regarding water quality and overdraft with substantial evidence. Impact 4.10-3, beginning on page 4.10-10 of the draft EIR, evaluates whether implementation of the 2040 General Plan would result in any increase in groundwater extraction in areas where the groundwater basin and/or hydrologic unit condition is not well known or documented and there is evidence of overdraft based upon declining water levels in a well or wells. The analysis that follows provides sufficient evidence to support the less than significant impact conclusion.

Although “a precise, project-level analysis of impacts to underlying groundwater basins of any future development under the 2040 General Plan cannot be performed at this time” due to the “programmatic nature of the 2040 General Plan,” the County notes that “all future development subject to the County’s discretionary approval during the plan horizon of the 2040 General Plan would be analyzed for potential impacts according to CEQA” (see page 4.10-10 of the draft EIR). The analysis continues (draft EIR page 4.10-11),

County Ordinance 4468 prohibits new water wells in the unincorporated county in many groundwater basins, limiting groundwater extraction within the county. These prohibitions would not be removed until GSAs are formed and have completed GSPs per the SGMA (Appendix B). The regulatory framework established by SGMA sets forth requirements under which groundwater basins will be characterized, monitored, and regulated. This is anticipated to substantially reduce the uncertainty of consequences associated with groundwater extraction.

Therefore, the County has based its conclusion on the regulatory framework established by SGMA, the project-level CEQA evaluation required for subsequent projects, and the limited extraction that can occur under Ordinance 4468 prior to adoption of groundwater sustainability plans. These provide relatively prescriptive requirements of discretionary development under the 2040 General Plan to support the conclusion that the plan would not result in groundwater extraction in areas where there is evidence of overdraft.

Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

O5-69

The comment asserts that the analysis of Impact 4.10-6 (Impact 4.10-6: Increase Surface Water Consumptive Use (Demand) in a Fully Appropriated Stream Reach, as Designated by SWRCB, or Where Unappropriated Surface Water Is Unavailable) beginning on page 4.10-13 of the draft EIR relies on and “uncertain and unstable water supply,” calling into question the subsequent impact determination. The comment does not provide further specifics about which data is unstable or how that could affect the significance determination. Therefore, a detailed response to this concern cannot be provided.

Note that this threshold is intended to look at potential effect of consumptive use only on fully appropriated stream reaches. As defined in the draft EIR (page 4.10-3), these are streams where “there is insufficient supply, during specified months or year-round, for new water right applications.” The designation of “fully appropriated” is made by SWRCB. The analysis concludes that the impact is less than significant because the appropriation of water occurs at the State level, the County cannot authorize additional consumptive use of these waters. Further, discretionary development is required to demonstrate provision of access to adequate water supply through the permit application process.

For additional discussion of the potential effects of consumptive use, the commenter is referred to Impact 4.10-1 (Directly or Indirectly Decrease the Net Quantity of Groundwater in a Groundwater Basin That Is Overdrafted or Create

an Overdrafted Groundwater Basin) on page 4.10-6 of the draft EIR, Impact 4.10-2 (Result in Net Groundwater Extraction That Causes Overdrafted Basins in Groundwater Basins That Are Not Overdrafted or Are Not in Hydrologic Continuity with an Overdrafted Basin) on page 4.10-9, Impact 4.10-3 9 (Result in Any Increase in Groundwater Extraction in Areas Where the Groundwater Basin and/or Hydrologic Unit Condition Is Not Well Known or Documented and There Is Evidence of Overdraft Based upon Declining Water Levels in a Well or Wells) on page 4.10-10, and Impact 4.10-7 (Increase Surface Water Consumptive Use (Demand) Including Diversion or Dewatering Downstream Reaches, Resulting in an Adverse Impact on One or More of the Beneficial Uses Listed in the Applicable Basin Plan) on page 4.10-15.

- O5-70 The comment states that the draft EIR does not analyze or reconcile the inconsistency between the 2040 General Plan and the Ventura Avenue Plan. As described in Chapter 3, "Project Description," (draft EIR page 3-10) the County assessed the goals, policies, and programs in the existing Area Plans as part of the General Plan update process. The North Ventura Avenue Area Plan was reviewed and assessed to compare the Area Plan goals, policies, and programs with 2040 General Plan goals, policies, and programs to ensure internal consistency. The North Ventura Area Plan is a component of the 2040 General Plan under evaluation in the draft EIR.
- Specific to petroleum resources, the County determined that no policies or programs unique to the North Ventura Avenue Area Plan were relevant to the evaluation of potential effects related to oil and gas under the established thresholds of significance (draft EIR page 4.12-7). Whether an Area Plan contemplates or intends to offer support to any particular industry is outside the scope of the environmental analysis. No revisions to the draft EIR have been made in response to this comment.
- O5-71 Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County's projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.
- O5-72 Refer to Master Response MR-6, which explains the County's approach to utilizing the existing setting information in the Background Report. The draft EIR (on page 4.11-1) refers readers to the specific sections of the Background Report (i.e., Chapter 3, "Land Use," and Section 8.3, "Scenic Resources") where the regulatory setting for land use and planning can be found. The comment does not identify what relevant aspects of the regulatory setting are missing from the EIR. Thus, no further response can be provided.
- O5-73 The comment suggests that there is a lack of evidence to support the assumption provided in the methodology for determining potential land use impacts that "the 2040 General Plan would comply with relevant Guidelines for Orderly Development, greenbelt agreements, and the Save Open Space & Agricultural Resources (SOAR) initiative measure for Ventura County's unincorporated areas" (draft EIR page 4.11-2). However, the comment does not provide

substantial evidence that the County’s proposed General Plan would conflict with the County’s existing guidelines and agreements.

Subsequent projects under the jurisdiction of the County’s discretionary approval would be reviewed for compliance with the 2040 General Plan, as well as relevant Guidelines for Orderly Development, greenbelt agreements, and SOAR. Where regulatory requirements or permitting requirements exist, it is assumed that compliance with these regulations would occur. The draft EIR identifies mitigation measures (i.e., new and revised policies and programs) only where there is not an existing, mandatory permit process or regulatory requirement with clear performance standards and prescriptive actions to address potential environmental effects. Refer also to Master Response MR-2 for discussion of 2040 General Plan consistency with the Guidelines for Orderly Development and SOAR initiative.

O5-74 Refer to response to comment O5-70. The Area Plans are part of the whole of the project under evaluation. The ISAG threshold requiring an analysis of consistency with applicable Area Plans is designed for project-level review. Here, application of the thresholds would result in a circular analysis of whether the 2040 General Plan is compatible with itself.

O5-75 The comment states that the draft EIR's land use analysis relies on an unclear project description. The Existing Community and Urban land use designations have been converted to area designations that encompass the more specific land use designations established in the 2040 General Plan. Chapter 3, “Project Description,” of the draft EIR (page 3-5) explains that the “current Existing Community and Urban designations were retained as new area designations in the 2040 General Plan.” The designations are depicted in Figure 3-3 and defined as key terms on pages 3-21 and 3-22. The Existing Community area designation (2040 General Plan Policy LU-1.2 and policies under Goal LU-3) identifies existing urban residential, commercial, or industrial enclaves located outside areas designated as Urban. This designation recognizes existing land uses in unincorporated areas that have been developed with urban building intensities and urban land uses; contains these enclaves within specific areas to prevent further expansion; and limits the building intensity and land use to previously established levels. The Urban area designation, referred to in the County’s SOAR initiative, is used to depict existing and planned urban centers. These include commercial and industrial uses, as well as residential uses where the building intensity is greater than one principal dwelling unit per 2 acres. In the existing General Plan, Urban was a land use designation that described allowable land uses. In the 2040 General Plan, this is an “area” designation that is only used to define a geographic area for purposes of SOAR implementation. These issues are discussed in more detail Master Response MR-2.

O5-76 Refer to Master Response MR-3 regarding RHNA and the timing of the 2040 General Plan.

O5-77 The draft EIR analyzes, at a programmatic level, the physical changes that could occur upon implementation of the 2040 General Plan. While policies and programs relevant to each resource topic (specifically, those relevant to the

impact analysis performed under the significance criteria for that topic) are identified throughout the draft EIR in Sections 4.1 through 4.17, the complete draft 2040 General Plan was reviewed in preparation of the draft EIR. Policy LU-4.2 is specifically considered in the analysis of Impact 4.11-1 (Result in Physical Development That Is Incompatible With Land Uses, Architectural Form Or Style, Site Design/Layout, Or Density/Parcel Sizes Within Existing Communities). The policy requires the County to “ensure that zoning designations are consistent with the General Land Use Diagrams.” The physical effects of implementing the land use diagram in the 2040 General Plan are analyzed throughout the draft EIR. Therefore, all reasonably foreseeable direct and indirect impacts of a zoning code consistent with the General Plan Land Use Diagram were evaluated in the draft EIR. No improper segmentation of the project has occurred. Also, refer to response to comment O5-20, which explains that if a zoning ordinance update is required, the reasonably foreseeable impacts of changes related to the new Parks and Recreation land use designation have been evaluated in the draft EIR, consistent with the requirements of CEQA.

O5-78

The comment states that the draft EIR relies on 2040 General Plan Policy LU-17.4 and asserts that this policy is likely inconsistent with vested rights and/or preempted by State or federal law. This policy prohibits the introduction of new incompatible land uses and environmental hazards that would have health implications into or abutting existing residential areas, in particular, within designated disadvantaged communities. In evaluating the feasibility Policy LU-17.4, the County determined that the term “health implications” needed further clarification for policy implementation. Therefore, in response to this comment, the County has revised Policy LU-17.4 to provide clarity on the location of new discretionary projects in the vicinity of residential areas and designated disadvantaged communities and replacing the term “health implications” with “substantial adverse health impacts” on an area’s residents. The revisions to Policy LU-17.4 are provided in the Ventura County Planning Commission hearing materials for July 16, 2020 (see exhibit for “Planning Division Recommended Revisions to the 2040 General Plan”).

The County would apply this policy when considering future, discretionary actions. The policy would not preempt applicable federal or State law. The County’s authority to consider incompatibility and hazards to existing land uses when it considers whether to approve discretionary development is derived from the County’s Non-Coastal Zoning Ordinance (NCZO) and Coastal Zoning Ordinance (CZO). Specifically, NCZO Section 8111-1.2.1.1 states that a permit for any discretionary development shall be granted only if specific factual findings can be made by the appropriate County decision-making authority. The findings in this section include among other findings, the following:

- a. The proposed development is consistent with the intent and provisions of the County's General Plan and of Division 8, Chapters 1 and 2, of the Ventura County Ordinance Code;
- b. The proposed development is compatible with the character of surrounding, legally established development;

- c. The proposed development would not be obnoxious or harmful, or impair the utility of neighboring property or uses;
- d. The proposed development would not be detrimental to the public interest, health, safety, convenience, or welfare; and
- e. For Conditional Use Permits only, the proposed development is compatible with existing and potential land uses in the general area where the development is to be located.

In addition, CZO Section 8181-3.5, states a permit for any discretionary development shall be granted only if specific factual findings can be made by the appropriate County decision-making authority including, among other findings, the following:

- a. The proposed development is consistent with the intent and provisions of the County's Certified LCP;
- b. The proposed development is compatible with the character of surrounding development;
- c. The proposed development, if a conditionally permitted use, is compatible with planned land uses in the general area where the development is to be located.
- d. The proposed development would not be obnoxious or harmful, or impair the utility of neighboring property or uses; and
- e. The proposed development would not be detrimental to the public interest, health, safety, convenience, or welfare.

The draft EIR acknowledges Policy LU-17.4 in Section 4.11, "Land Use and Planning," and considers application of the policy, in conjunction with several other policies and existing laws and regulations, in the impact analysis conducted under Impact 4.11-1 (Result in Physical Development That Is Incompatible With Land Uses, Architectural Form Or Style, Site Design/Layout, Or Density/Parcel Sizes Within Existing Communities) and Impact 4.11-2 (Result in Physical Development That Would Divide An Established Community). Policy LU-17.4 is not the sole basis for the impact conclusions in Impact 4.11-1 and Impact 4.11-2. The revisions to Policy LU-17.4 would not change the impact conclusions of Impact 4.11-1 or 4.11-2. Section 4.11 specifically describes oil and gas wells as examples of future development that would be allowed under implementation of the 2040 General Plan (page 4.11-18).

The commenter also states that the draft EIR does not explain why the 2040 General Plan does not include a "similar prohibition" regarding location of new residential land uses adjacent to existing or likely future land dedicated to oil and gas use. CEQA requires evaluation of the environmental effects of a project; it does not require explanation of why components of the project are not included in the project. The reference to a "similar prohibition" on new residential uses is noted and will be forwarded to the decision-making bodies for consideration.

- O5-79 The comment states that the draft EIR does not analyze the land use impacts (and all other impacts) associated with the new 2040 General Plan land use designations. As explained under the heading “2040 General Plan Land Use Designations” beginning on page 3-4 of Chapter 3, “Project Description,” in the draft EIR, “the 2040 General Plan would establish 15 land use designations that provide more detailed information on the types of land uses (e.g., commercial, industrial, residential) that would be allowable within areas currently designated as Existing Community and Urban land use designations” to “clearly distinguish the land uses allowed and set forth maximum development density and intensity standards.”. The remaining four land use designations would be unaffected. Therefore, there would be a total of 19 land use designations under the 2040 General Plan. The project description also explains that the “2040 General Plan land use designations would be consistent with land uses and densities/intensities allowed under the current (2018) zoning designations for each affected parcel” (draft EIR page 3-4). Therefore, there is no potential for incompatibility to address in the analysis. Refer to Master Response MR-2 regarding the 2040 General Plan Land Use diagram for additional discussion.
- O5-80 The commenter asserts the project description is vague and inconsistent and results in unsupported conclusions regarding land use compatibility. The degree of specificity in an EIR project description corresponds to the degree of specificity available for the underlying activity being evaluated (State CEQA Guidelines, § 15146). Project-specific detail is not required for descriptions of general plans and other high-level programs because details about specific subsequent projects typically are not known and will be addressed in future project-specific CEQA documents. When a lead agency is using the tiering process for a large-scale planning approval such as for a general plan, the development of detailed site-specific information about specific projects may not be feasible and can be deferred to future project-specific CEQA documents (CEQA Guidelines, § 15152(c); AEP 2016).
- In the evaluation of Impact 4.11-1 (Result in Physical Development That Is Incompatible With Land Uses, Architectural Form Or Style, Site Design/Layout, Or Density/Parcel Sizes Within Existing Communities), the County enumerates nearly 30 policies included in the 2040 General Plan that support the conclusion that “the 2040 General Plan would not result in physical development that is incompatible with existing land uses, architectural form or style, site design/layout, or density/parcel sizes within existing communities” (draft EIR page 4.11-21).
- Policy LU-4.1, which is a modification of an existing General Plan policy, establishes that the “County shall maintain and implement a Land Use Diagram for purposes of describing the types of allowed land uses by geographic location and the density and/or intensity of allowed uses within each designation.” Policy LU-4.2, also a modification of an existing policy, states that the “County shall ensure that zoning designations are consistent with the General Land Use Diagrams” and sets forth “factors to determine the appropriate zone classification (from among those consistent with the appropriate land use designation).” The commenter is correct that the policies do not establish intensity and density

requirements directly; but they require the County to maintain a Land Use Diagram that illustrates the location of distinct land use designations within the county, and that each land use designation has an established maximum allowed intensity and/or density. Therefore, these policies need to be taken in the context of the information presented in Section 2.2 of the 2040 General Plan. Section 2.2 presents all of the land use designations allowed in the county, and therefore, the Land Use Diagram referenced in Policy LU-4.1. Specifically, the Land Use Diagram relies on the description of density and/or intensity presented on Table 2-2. This supports the draft EIR conclusions regarding land use compatibility.

Relative to the description of future land uses, the draft EIR provides 2040 General Plan Land Use for the Northern County and Southern County in Figures 3-2a and 3-2b, respectively. These draft EIR figures are accompanied by Table 3-2 (pages 3-14 and 3-15), which provides a description of each land use designation and the total acreage and percentage of county land covered by each designation, and a narrative describing the types of future development that would occur countywide under implementation of the 2040 General Plan land use designations (pages 3-14 to 3-19).

Similarly, Policy LU-6.1 is one of many policies in the 2040 General Plan that would reduce potential for conflict with agricultural land uses. Through this new policy, the County would “require non-agricultural land uses adjacent to agricultural uses to incorporate adequate buffers (e.g., fences, setbacks) to limit conflicts with adjoining agricultural operations.” Although the policy does not establish the exact buffer distances, adequacy of which would be determined by the County at the project level, this policy does support the conclusion that the 2040 General Plan would have a less-than-significant impact related to incompatibility with agricultural form or style by providing a mechanism for the County to require these measures.

For the purpose of clarity, the second and third sentences on page 4.11-21 are revised as follows:

For example, Policies LU-4.1 and LU-4.2 would reduce incompatible land uses by requiring that the County specifying densities and/or intensities of allowed uses within each land use designation and maintaining continuity with neighboring zoning, land uses, and parcel sizes. Policies LU-6.1, LU-7.1 through 7.3, and LU-8.1 through LU-8.4 reduce incompatible uses within agricultural areas by requiring specifying buffers for non-agricultural use, and specifying allowable coverage, and allowable uses within those areas.

These revisions clarify the analysis provided in the draft EIR and do not present substantial new information or change the impact conclusions of the draft EIR. Refer to Master Response MR-2 for discussion of the adequacy of the draft EIR project description.

O5-81

The comment states that the draft EIR's analysis and conclusions regarding division of an established community are not based on substantial evidence. Appendix G, question XI.a, evaluates whether a project would physically divide

an established community. This threshold is addressed in Impact 4.11-2. The conclusion reached is not based on a single policy and the draft EIR does consider the effects of infrastructure improvements.

The analysis on page 4.11-22 states, in part: “Future development and other physical changes under the 2040 General Plan have the potential to divide an established community if infrastructure (e.g., roadways, utilities)...are developed within an established community...As described above under Impact 4.11-1, there are numerous policies in the 2040 General Plan that would provide for land use compatibility to ensure that established communities remain intact while accommodating future development and other physical changes that would occur under the 2040 General Plan.”

- O5-82 Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.
- O5-83 The comment expresses concern about the length of the draft EIR land use impact analysis. As explained on page 4.11-2 of the draft EIR, implementation of the 2040 General Plan would have a significant impact on land use and planning if it would: result in physical development that is incompatible with existing land uses, architectural form or style, site design/layout, or density/parcel sizes within any communities; result in the physical division of an established community; or cause a significant environmental impact due to a conflict with a regional plan, policy, or program adopted for the purpose of avoiding or mitigating an environmental effect. These thresholds are addressed at an appropriate programmatic level in the draft EIR.
- The comment does not provide specific examples of deficiencies in the analysis. As such, no further response can be provided.
- O5-84 Refer to Master Response MR-6, which explains the County’s approach to utilizing the existing setting information in the Background Report. Refer to Master Response MR-4, Section MR-4.L, “Oil Reserves,” regarding the findings and conclusions related to access to oil reserves.
- O5-85 Refer to Master Response MR-4, Section MR-4.L, “Oil Reserves,” regarding the findings and conclusions related to access to oil reserves. The information in the comment would not alter findings or analysis in the EIR.
- O5-86 The comment asserts that Section 4.12, “Mineral and Petroleum Resources,” lacks an adequate description of the existing regulatory setting; noting that the regulations presented are “only a fraction of” the relevant regulatory framework. The comment does not, however, provide any specific regulations that are absent from the regulatory setting which would inform the analysis or conclusions in the draft EIR. Therefore, no further response can be provided. Note, however, that the County has revised the regulatory setting to include an enhanced discussion of CALGEM’s regulations. Refer to Chapter 3, “Revisions to the Draft EIR.”

O5-87 Refer to Master Response MR-4, Section MR-4.L, “Oil Reserves,” regarding the findings and conclusions related to access to oil reserves. The effects on oil reserves were determined to be significant; information indicating increased reserves would not alter this analysis or findings.

O5-88 The comment states that the draft EIR makes a conclusory statement regarding the 2040 General Plan’s consistency with mineral resource goals and policies in the Area Plans. Refer to response to comment O5-70.

Section III.A. of the North Ventura Avenue Area Plan (NVAP) provides a discussion of the intent and rationale behind the land use designations in the plan. Page 12 of the NVAP, under the heading “6. Oilfield Industrial (Oil Extraction Industrial)” reads, in part:

The new Oilfield Industrial category is intended to designate those areas where oil extraction uses are located. Such uses would include the removal, transfer and storage of crude oil and related products prior to refining...It is the intent that any conversion of oilfield industrial land to industrial uses be subject to the submittal of a master plan of public services for the site, which would evaluate the availability and capacity of public services and the impacts of the conversion on those services and provide programs for mitigating deficiencies. Areas which are converted should be located such that they can be annexed to the City and make adequate provision for access to the remaining oilfields...The 67 acre hillside parcels located south of Shell Road (extended) and east of Ventura Avenue are designated “Oilfield Industrial.” Most of the area is in oil production and is characterized by severe topographic constraints. The oilfield industrial category shall apply only after annexation to the City. The County’s “Open Space” designation, as noted on the General Land Use map (Appendix C), shall control until annexation takes place. All new or expanded oilfield development shall meet County standards for oil drilling and extraction uses until such time as the City may adopt oilfield development standards, and any other requirement that may be necessary to adequately buffer and protect surrounding areas.

The 2040 General Plan would not change the land use designations of the NVAP or require the phase-out of existing oil and gas operations. Furthermore, the 2040 General Plan does not include any new Area Plan, goals, policies, programs or land use designations, inclusive of the NVAP and its planning area. Therefore, this comment does not raise issues that would change the impact conclusions of the draft EIR related to minerals and petroleum resources. Specifically, as described in Section 4.12, “Mineral and Petroleum Resources,” the land use designation would not result in development on or adjacent to existing petroleum extraction sites or areas where petroleum resources are zoned, mapped, or permitted for extraction, which could hamper or preclude access to the resources (refer to Impact 4.12-3 beginning on page 4.12-11 of the draft EIR); nor would it result in the loss of availability of a known petroleum resource that would be of value to the region and the residents of the State (refer to Impact 4.12-4 beginning on page 4.12-22 of the draft EIR).

O5-89 Refer to Master Response MR-4, Section MR-4.A, “County’s Authority to Regulate Oil and Gas Development,” regarding the findings and conclusions related to the feasibility of legally enforcing the policies. Additionally, the commenter asserts that Policies COS-7.7 and 7.8 are preempted, as a local agency cannot eliminate the use of trucking of oil or limit flaring to County-defined instances of “testing” or “emergency” as these activities are governed by State and federal law. Policy COS 7.8 (Gas Collection, Use, and Disposal) as proposed in the 2040 General Plan and revised through draft EIR Mitigation Measure PR-3 allow for flaring or venting in cases of emergency or for testing purposes. However, Policy COS-7.8 in the draft General Plan (page 6-13) does not require that flaring or venting in cases of emergency or for testing be consistent with federal, State, and local regulations. Therefore, should the Board of Supervisors (Board) not to adopt Mitigation Measure PR-3, County staff would recommend revisions to Policy COS-7.8 to ensure consistency with state and federal law outside of the EIR process.

Policy COS 7.7 (Conveyance for Oil and Produced Water) as proposed in the 2040 General Plan (page 6-12) does not allow for trucking in cases of emergency or for testing purposes. Mitigation Measure PR-2 in the draft EIR (page 4.12-31) allows for trucking of crude oil and produced water in cases of emergency or for testing purposes consistent with federal, state and local regulations. The commenter correctly notes that Policy COS-7.7 as proposed in the 2040 General Plan is likely preempted as a local agency cannot eliminate the use of trucking of oil for emergency or testing purposes as required by state and federal law. Therefore, should the Board choose to reject Mitigation Measure PR-2, County staff would recommend revisions to Policy COS-7.87 to ensure consistency with state and federal law outside of the EIR process.

O5-90 The comment states that the draft EIR’s conclusions for Impact 4.12-1 are unsupported. The draft EIR provides substantial evidence to support the significance determination for Impact 4.12-1 (Result in Development on or Adjacent to Existing Mineral Resources Extraction Sites or Areas Where Mineral Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Extraction of the Resources). After explaining that “MRZ-2 lands are identified in the County’s NCZO with an MRP Overlay...to safeguard future access to the resources, facilitate the long-term supply of mineral resources in the county, and notify landowners and the public of the presence of the resources,” the analysis acknowledges that “there is a band of MRZ-2 designated lands that roughly coincides with the Santa Clara River...which are designated for residential and industrial development in the proposed land use diagram” (refer to draft EIR page 4.12-10).

The discussion on page 4.12-10 goes on to explain that there are two key policies in the 2040 General Plan that would address the potential for discretionary development on lands designated MRZ-2 that could hamper or preclude extraction of mineral resources:

As established in Policy COS-6.4, future discretionary development would continue to be subject to the provisions of the MRP Overlay, and such

development would be prohibited if the use would substantially hamper or preclude access to, or the extraction of, mineral resources.

Pursuant to Policy COS-6.5, the County would promote mineral resource land use capacity by ensuring that discretionary development in areas designated MRZ-2 is compatible with mineral resources extraction and processing activities. Specifically, the County would require an evaluation of the significance of the mineral resources deposits located in the area of a proposed discretionary development and determine whether the use would significantly hamper or preclude access to, or the extraction of, mineral resources; and require discretionary development proposed adjacent to existing mining operations to provide a buffer (based on an evaluation of noise, community character, compatibility, scenic resources, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality) between the development and mining operations to minimize land use incompatibility and avoid nuisance complaints. This review would address discretionary development both on or adjacent to mineral extraction sites and adjacent to principal access roads to existing aggregate extraction or production sites.

- O5-91 The comment states that the draft EIR's impact conclusion for mineral resources is contradicted by the Background Report. The draft EIR provides substantial evidence to support the significance determination for Impact 4.12-2 (Result in the Loss of Availability of a Known Mineral Resource That Would Be of Value to the Region and the Residents of the State). The analysis acknowledges the MRZ-3 lands in the plan area, but determines that "it would be speculative to assess the potential effects of future development in these areas" as a loss of a known mineral resource pursuant to the threshold "because MRZ-3 and MRZ-3a areas have not been established as areas of value to the region or the State" (draft EIR page 4.12-11). The analysis on page 4.12-11 also notes that "Policy COS-6.5 would require future discretionary development to conduct an evaluation to ascertain the significance of the mineral resource deposits located in the area of a proposed discretionary development based on the most current MRZ maps available at the time development is proposed (as updated pursuant to Policy COS-6.2)." Therefore, if MRZ-3 lands are confirmed to have mineral resources and reclassified as MRZ-2 during the 20-year plan horizon, the most current maps would be used in the County's evaluation of discretionary development.
- O5-92 Refer to Master Response MR-4, Section MR-4.E, "Applicability of Reference Studies for Oil and Gas Operations," regarding the validity of relying on this and related reports.
- O5-93 Refer to Master Response MR-4, Section MR-4.D, "Mitigation Measures and the Role of the Board of Supervisors," and Section MR-4.K, "Effects Outside the Study Area," regarding the findings and conclusions related to mitigation measures. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the Draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-

making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- O5-94 The comment states that the draft EIR does not analyze the indirect impacts associated with the 2040 General Plan's proposed policies. As explained in response to comment O5-65, above, the physical effects of pipeline construction that could result from implementation of Policy COS-7.7 and Policy COS-7.8 are evaluated throughout the draft EIR and are within the body of the potential ground disturbance assumed with implementation of the 2040 General Plan. Feasible mitigation has been proposed throughout the EIR that would apply to significant environmental impacts resulting from installation of oil and gas pipelines.
- O5-95 Refer to Master Response MR-2 for discussion of the growth projections and buildout assumptions used in the draft EIR. Refer to Master Response MR-3 regarding RHNA and evaluation of the 2040 General Plan.
- O5-96 The comment states that Impact 4.13-4 lists oil supply facilities among major industrial noise sources but does not support this assertion except for a reference to the Background Report. The draft EIR makes no assertions about the level of noise generated by oil and gas production relative to general industrial activities and does not conclude that oil supply facilities are a "major" source of noise. In framing the discussion of potential for the 2040 General Plan to expose noise-sensitive land uses to operational stationary noise that exceeds applicable standards (Impact 4.13-4, pages 4.13-23 through 4.13-24), the draft EIR summarizes the existing setting provided in the Background Report:
- the primary sources of stationary noise in the county consist of industrial and agricultural operations, and miscellaneous sources...Major industrial noise sources include concrete and rock batch plants, sand and gravel mines, and Pepsi Cola and oil supply facilities. The 2040 General Plan would designate industrial land use areas throughout the county. However, the amount of industrial land use proposed under the 2040 General Plan would be minor, totaling approximately 1,400 acres and less than 1 percent of the total county area.
- Based on compliance with the County's zoning ordinances and policies proposed in the 2040 General Plan, this impact is identified as less than significant. Also refer to response to comment O2-18.
- O5-97 The comment states that General Plan Policy HAZ 9.2 provides for specific noise control measures applicable to new noise generators located near sensitive uses but fails to restrict the development of new sensitive uses adjacent to areas where new noise generators are permitted uses. The analysis of (Impact 4.13-6) Expose Sensitive Receptors to Construction Vibration Levels That Exceed Applicable Standards concludes that:

Although the *Construction Noise Threshold Criteria and Control Plan* would require individual construction projects to include numerous vibration-reducing techniques and minimize exposure at receiving land uses, at this time the location, intensity, and timing of future construction

activities under the 2040 General Plan, as well as relative vibration levels at nearby receptors is unknown. Further no specific policies are in place or proposed that would avoid or minimize potential adverse effects from blasting and/or pile driving activities. Therefore, it cannot be determined if future development under the 2040 General Plan would generate vibration levels that would exceed applicable standards at nearby receptors, and this impact would be **potentially significant**.

Two mitigation measures are proposed, one of which is modification of 2040 General Plan Policy HAZ-9.2 on page 4.13-27 of the draft EIR (Mitigation Measure NOI-2). In this mitigation measure the policy would be revised to add that vibration caused by construction would be evaluated and mitigated. There is a clear nexus between the impact and the mitigation (i.e., policy revision) proposed. There is no clear nexus between the commenter's claims of unfair bias and the analysis or mitigation at hand.

Note, however, that Policy HAZ-9.2 (as proposed in the 2040 General Plan) does include restrictions on new noise-sensitive development, requiring that: "New noise sensitive uses proposed to be located near highways, truck routes, heavy industrial activities and other relatively continuous noise sources shall incorporate noise control measures so that indoor noise levels in habitable rooms do not exceed Community Noise Equivalent Level (CNEL) 45 and outdoor noise levels do not exceed CNEL 60 or Leq1H of 65 dB(A) during any hour."

O5-98

Refer to Master Response MR-6, which explains the County's approach to utilizing the existing setting information in the Background Report. The draft EIR (on page 4.14-1) refers readers to the specific sections of the Background Report (i.e., Chapter 2, "Demographics and Economics," and Chapter 5, "Housing") where the regulatory setting for population and housing can be found. The comment does not identify what relevant aspects of the regulatory setting are missing from the EIR. Thus, no further response can be provided.

Senate Bill (SB) 330 was approved by Governor Newsom in October 2019, ten months after the baseline established by release of the notice of preparation for the draft EIR in January 2019. SB 330 is based on the premise that much of the housing needed to fill the statewide deficit has already been planned for by local communities, but is being delayed by local requirements. SB 330 is a 5-year modification to Planning and Zoning Law that cuts the time it takes to obtain building permits, limits fees on housing, and blocks local governments from reducing the number of homes that can be built. Local agencies are prohibited from disapproving, or conditioning approval in a manner that renders infeasible, a housing development project for very low, low-, or moderate-income households or an emergency shelter unless the local agency makes specified written findings. The act specifies that one way to satisfy that requirement is to make findings that the housing development project or emergency shelter is inconsistent with both the jurisdiction's zoning ordinance and general plan land use designation as specified in any element of the general plan as it existed on the date the application was deemed complete.

SB 330 does not affect the conclusions of the draft EIR relative to potential to displace affordable house (Impact 4.14-1), induce unplanned population growth (4.14-2), or increase demand for low-income housing that exceeds the unincorporated county's inventory of appropriately designated land (4.14-3). These impacts are all found to be less than significant. The regulatory framework of SB 330 supports these conclusions.

- O5-99 As explained in Master Response MR-3 regarding the Housing Element update and in response to comment O5-4, no improper segmentation has occurred.
- O5-100 Refer to Master Response MR-3 regarding RHNA and the Housing Element update.
- O5-101 The only table on page 4.16-4 of the draft EIR is Table 4.16-1, 2016 Ventura County Boundary-Based VMT Estimates. The information in this table reflects existing baseline conditions; future housing inventory targets established by the updated draft RHNA for the 6th cycle (projection period from June 30, 2021 to October 15, 2029) are not applicable. Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the unincorporated county's projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.
- O5-102 The thresholds of significance utilized in the draft EIR are consistent with the guidance provided by the Office of Planning and Research for the establishment CEQA impact thresholds. The transportation impact thresholds used in this draft EIR were developed specifically for the evaluation of the 2040 General Plan and are not intended to apply to subsequent discretionary development. The latter will be addressed through implementation of the 2040 General Plan Implementation Program CTM-B.
- Based on SB 743 legislation and guidance, air quality improvements notwithstanding, using vehicle miles traveled (VMT) as the primary metric for identifying CEQA impacts will promote greater transportation efficiency by facilitating mode shifts from automobiles to more sustainable alternative modes of transportation (i.e., walk, bike, transit), and promote shorter trip lengths (less VMT) due to greater land use efficiency (promotes greater urban/suburban in-fill, mixed use, juxtaposition of compatible land uses and higher density development).
- O5-103 The comment's initial statement appears to conflate the concept of baseline with the projection of future conditions. Establishment of a baseline VMT estimate is required per SB 743. This baseline is independent of any future change, RHNA-related or otherwise.

It is also important to note the difference between RHNA and projected growth. The analysis in the draft EIR is based on growth projections for the unincorporated county as developed and presented in the Southern California Association of Government's (SCAG's) 2020 Regional Transportation Plan and Sustainable Communities Strategy which included population growth projections for the entire county, both unincorporated and incorporated. This SCAG

projection, based on historic, statistical, and demographic factors, projects the types of growth, including residential growth, that is likely to occur within the county. The Ventura County Transportation Commission transportation model, as used in the draft EIR analysis of traffic impacts, uses the SCAG data for the entire county. Refer to Master Response MR-2 for additional discussion of the growth projections used in the draft EIR.

As part of the RHNA process, the California Department of Housing and Community Development determines the total number of new homes the SCAG region needs to plan for—and how affordable those homes need to be—in order to meet the housing needs of people at all income levels. SCAG, working with member jurisdictions, including the County, then breaks the regional RHNA number down to provide the number of units, by income level, each jurisdiction needs to plan to accommodate.

As part of the Alternatives Report process, the County has demonstrated that it has adequate lands designated for residential use to satisfy future housing needs through the 2040 planning period of the 2040 General Plan. This is an important distinction. The RHNA allocations project only eight years into the future, covering the 6th cycle projection period from June 30, 2021 to October 15, 2029, whereas the 2040 General Plan projects 20 years into the future to the year 2040. Given the overall small increase in population growth of 4 percent expected by 2040 in the unincorporated county (see draft EIR Table 3-3, page 3-19), and given the RHNA numbers only account for 40 percent of the General Plan's timeframe, to claim that the 2040 General Plan does not contain adequate analysis of small deviations that may occur between the preliminary draft RHNA numbers (used during the Alternatives Report process) and final RHNA numbers is not supported by the information provided in this comment.

Relative to the Housing Element, refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County's projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.

Relative to the concerns expressed regarding the obsolescence of the draft EIR thresholds of significance, this concern is not relevant to this analysis. The transportation impact thresholds used in this draft EIR were developed specifically for the 2040 General Plan draft EIR and are not intended to apply to subsequent discretionary development reviews. The latter will be addressed by the County through the updated ISAG described in Implementation Program CTM-B.

O5-104 As stated on page 4-16.1 of the draft EIR:

Relative to LOS [level of service] analysis, Section 15064.3 was added to the State CEQA Guidelines effective December 28, 2018 as part of a comprehensive guidelines update and addresses the determination of significance for transportation impacts under CEQA. This section requires that transportation impact analysis be based on VMT instead of a congestion metric (such as LOS) and states that a project's effect on

automobile delay shall not constitute a significant environmental impact. Thus, LOS is not analyzed in this draft EIR.

As noted in the comment, Policy CTM-1.1 addresses VMT standards and their use for CEQA evaluations, and Policy CTM-1.2 addresses mitigation of project-related VMT impacts. In accordance with State law, the County must evaluate transportation-related environmental impacts based on VMT, not LOS.

While the County will use VMT to evaluate impacts under CEQA, the County will continue to require level of service (LOS) evaluations outside of the CEQA process as part of discretionary development review. Though no longer germane to CEQA impact findings, the County will still consider LOS as part of project review and development of conditions of approval. County development fees, as described in the County's Traffic Impact Mitigation Fee Ordinance, will also continue to consider LOS and vehicle trip generation per Policy CTM-1.7 and Implementation Program CMT-A. Note that SB 743 has no bearing on the California Mitigation Fee Act (Government Code, §§ 66000 et seq.).

O5-105 LOS will continue to be monitored on the designated Congestion Management Program (CMP) system as appropriate. The Federal Congestion Management process will also continue to be monitored in Ventura County by SCAG. Note that SB 743 has no bearing on the use of operational performance measures like LOS on the State Congestion Management Program statutes (Government Code, §§ 65088 - 65089.10).

O5-106 Under SB 743, truck-generated VMT is not excluded from the VMT analysis as stated in the comment. According to the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018), starting at page 4, the advisory does not exclude trucks, but allows them to be included for ease of calculation. The advisory states as follows (emphasis added):

Vehicle Types. Proposed Section 15064.3, subdivision (a), states, "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." Here, the term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. ***Heavy-duty truck VMT could be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT).*** For an apples-to-apples comparison, vehicle types considered should be consistent across project assessment, significance thresholds, and mitigation.

In the draft EIR, the County has included truck traffic in the VMT assessment. A reduction in truck traffic will reduce overall VMT and will have a more notable impact on the reduction of emissions in relation to automobiles and light duty trucks.

O5-107 Refer to response to comment O5-103 related to RHNA numbers and this draft EIR. Also, refer to Master Response MR-3 regarding RHNA and the Housing Element update.

O5-108 The comment expresses an opinion about the adequacy of the cumulative impact assessment and opines that the analysis should include the 2020 RHNA allocation.

As explained in Section 5.1, “Methods of Analysis,” (draft EIR page 5-1), “CEQA allows the use of either a list of past, present, and probable future projects (including projects outside the control of the lead agency), or a summary of projections in an adopted planning document.” The “discussion examines impacts associated with future development under the 2040 General Plan, plus future development for jurisdictions that neighbor the unincorporated areas of the county, to assess the potential for cumulative impacts from growth in the greater region.”

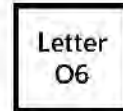
The 2020 RHNA numbers have not been adopted and are not an appropriate basis of the cumulative evaluation. Note, however, that the purpose of the RHNA allocation is to ensure housing for the projected population. Therefore, by analyzing the growth projections for unincorporated Ventura County, the incorporated cities, and adjoining counties, the implications of RHNA (i.e., future land disturbance, demand for utilities and public services) have been accounted for. Refer to Master Response MR-3 regarding RHNA and the Housing Element update.

O5-109 Refer to Master Response MR-3 regarding RHNA and the Housing Element update.

O5-110 This general comment regarding the adequacy of the draft EIR analysis is noted. However, no specific issues related to the content, analysis, or conclusions of the draft EIR are raised in this comment. Refer to responses to comments O5-1 through O5-109, above, which address feasible mitigation and significant and unavoidable impact conclusions.

O5-111 Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

O5-112 The comment provides the preferred contact for the organization. The County has noted the information appropriately for future reference.



BY:

February 24, 2020

VIA ELECTRONIC MAIL

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Re: Comments on Ventura County 2040 General Plan Draft Environmental Impact Report (State Clearinghouse No. #2019011026)

Dear Ms. Curtis:

On behalf of Aera Energy, LLC (“Aera”), we respectfully submit the enclosed comments on the Draft Environmental Impact Report (“DEIR”) prepared for the County of Ventura’s (“County”) proposed update to its existing General Plan (“GP 2040”).

As you may already know, Aera is the largest onshore oil and gas producer in the County, as well as its ninth largest tax-payer. Aera’s production operations within the County also generate significant downstream revenue for local businesses. In 2018, Aera’s local business expenditures exceeded forty million dollars. Aera’s daily production activities involve nearly one hundred full-time employees and several hundred contractors and vendors, all of whom in turn contribute to the long-term economic health and vitality of the County.

Our review of the DEIR has disclosed several categories of concern. As you are aware, the County must disclose and meaningfully evaluate all foreseeable direct and indirect physical consequences of its proposed action—the adoption of GP 2040. Based on our review of the DEIR, it is clear that the County has failed to fulfill its obligation in this regard. For example:

- In evaluating the consequences of adopting GP 2040, the DEIR relies on incomplete, erroneous or scientifically discredited information;
- In evaluating the consequences of adopting GP 2040, the DEIR ignores readily foreseeable impacts and/or misstates the severity of impacts;
- The DEIR proposes mitigation measures, the implementation of which is infeasible for a variety of known technological, legal and economic reasons;
- The DEIR and the Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft, January 2020 (hereinafter, “Background

O6-1

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Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager
February 24, 2020
Page 2

Report”) are incomplete with respect to their discussions of the environmental setting and regulatory setting; and

- The DEIR and Background Report fail to disclose and consider the fact that several proposed policies, implementing programs and mitigation measures are preempted by state and federal law and/or cannot be carried out without unlawfully impairing vested property rights.

We address these categories of concern in further detail in the Table of DEIR and Background Report Comments enclosed herewith and incorporated herein by reference.

In an effort to improve the technical and textual accuracy and adequacy of the DEIR and Background Report, as well as the GP 2040 Policies and Goals described therein, we have included several comments, proposed revisions and clarification requests in the enclosed Table of DEIR and Background Report Comments. We ask that this letter and all enclosed materials be included in the record of proceedings in this matter and carefully considered by the County.

Finally, it is our expectation that the extensive comments noted herein will be given the same careful consideration as comments submitted by others outside our industry, given the importance of this document to the current and future residents of Ventura County. It is our expectation that complete and thoughtful responses will be prepared for each of the comments enclosed herewith, and the DEIR will be revised and recirculated accordingly. A mere “comment noted or comment received” will not suffice. We look forward to working with County staff to resolve the issues addressed herein and we further look forward to recirculation of a DEIR that meets the applicable legal standards.

As requested, we are providing the name of our point of contact, mailing address and email address as follows:

William J. Spear III, Manager of Operations
3382 N. Ventura Avenue
Ventura, CA 93001
E-mail: WJSpear@aeraenergy.com

Sincerely,



William J. Spear III
Ventura Manager of Operations
Aera Energy, LLC

O6-1
cont.



Table of DEIR and Background Report Comments

| Document & Page No. | Comment/Proposed Revision/Clarification Request | |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| DEIR: pg. 4.1-16 | Policy NV-1.12. The DEIR does not address the consequences of shifting the “scenic approach” designation to Canada Larga and Ventura Ave. Such a shift is expected to conflict with the long terms use objectives of the North Ventura Ave Area Plan, which are industrial in nature. | O6-2 |
| DEIR: pg. 4.1-23 | The DEIR does not disclose the impacts associated with implementation of Program J itself, nor does it disclose whether Program J implementation would adversely impact the existing built environment, foreseeable future development or introduce conflicting use pattern objectives. Additionally, the DEIR does not disclose which highways would be affected by implementation, which makes it impossible to evaluate the scope of impact. | O6-3 |
| DEIR: pg. 4.1-23 | The DEIR does not acknowledge or address the fact that certain facilities (such as oil and gas drill sites) cannot be sited so they are not readily seen, given known drilling and operational constraints. Such realities should be considered in the DEIR. | |
| DEIR: pg. 4.1-25 | In its discussion of Open Space, the DEIR states that development is “to be sited and designed to prevent significant degradation of a scenic view or vista.” Again, the DEIR does not consider the fact that various authorized uses can only be installed in specific locations, which could foreseeably include installation in a location containing a scenic view or vista. | O6-4 |
| DEIR pg. 4.3-5 | Methodology. The DEIR utilizes various definitions of “sensitive receptors” in Section 4.3. The County states that “sensitive receptors are considered to be populations or uses that are more susceptible to the effects of air pollution than the general population”. Therefore, a residence would not be considered a “sensitive receptor”. The DEIR must explain why a typical residence would be excluded from any assessment of toxic air contaminants. | O6-5 |
| DEIR pg. 4.3-6 | Thresholds of Significance. The DEIR concludes that there are no known safe concentrations of toxic air contaminants (TAC). The DEIR should provide a reference to scientific studies that support this statement. Everyone in the County is exposed to TACs due to second-hand smoke, products of combustion, etc. Does this mean no one in the County is “safe”? Why would any additional development be allowed in the County under these conditions? | O6-6 |
| DEIR pg. 4.3-8 | Policy COS 7.8. The County is proposing a policy that requires gases from new discretionary oil and gas wells to be collected and used in order to minimize flaring. Landfills and wastewater treatment plants commonly employ flares to incinerate gas from those facilities. This policy should be expanded to include any flare associated with a discretionary project. If not, the DEIR should be revised to describe how the pollution from a flare at a landfill or wastewater treatment facility differs from a flare at an oil and gas well. | O6-7 |
| DEIR pg. 4.3-15 | Under Impact 4.3-2, the DEIR states that, “Further, as actual construction phasing is not known, it is possible that emissions may exceed or be below modeled emissions shown in Table 4.3-2. Nonetheless, based on conservative modeling, it is likely that emissions would exceed countywide and Ojai Valley thresholds at some point during buildout of the 2040 General Plan.” Yet, the DEIR provides no evidence to support the assumption that emissions would exceed countywide thresholds. Instead, the DEIR discloses that | O6-8 |

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| | population growth for the County will be negligible through 2040, which contradicts the assumption that construction associated with such growth would exceed applicable thresholds. | O6-8 cont. |
| DEIR: pg. 4.3-15 | Mitigation Measures AQ-1a and AQ-1b are duplicative. Measure AQ-1b does not provide any mitigation benefits over and above those stated in Measure AQ-1a. | O6-9 |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. This mitigation measure requires “[p]re-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations.” Although this mitigation measure will decrease fugitive dust emissions, no analysis is provided in the DEIR regarding the amount of water that will be needed or where the water will be obtained. The DEIR must analyze all potential impacts. This mitigation measure could have substantial impacts on water use and have the unintended consequence of increasing emissions of GHGs, PM2.5, and NOx by having to utilize water trucks. The DEIR needs to be revised and recirculated to analyze these potential impacts. | O6-10 |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. This mitigation measure requires “treatment” of various portions of future construction sites within the County to minimize fugitive dust. A treatment option listed is “periodic watering”. Again, this mitigation measure could have substantial impacts on water use and have the unintended consequence of increasing emissions of GHGs, PM2.5, and NOx by having to utilize water trucks. The DEIR needs to be revised and recirculated to analyze these potential impacts. | |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. The DEIR concludes that after mitigation, “criteria air pollutants and precursors would be minimized through the use of the highest rate [sic] diesel engines available”. The highest rated diesel engines as determined by the U.S. Environmental Protection Agency are Tier 4 engines, which offer substantially reduced NOx emissions. Contrary to the statement in the DEIR, none of the mitigation measures listed in Section 4.3 require the use of Tier 4 engines for nonroad diesel-fired construction equipment. The DEIR must clarify whether Tier 4 engines are in fact required to mitigate NOx emissions at all discretionary construction projects. | O6-11 |
| DEIR pg. 4.3-17 | The NOx emissions listed in Table 4.3-3 can only be achieved using Tier 4 engines on all nonroad diesel-fired construction equipment. For example, NOx emissions are limited to less than 3.0 g/bhp-hr for a Tier 3 nonroad engine rated between 100 hp and 750 hp. It is not uncommon for construction companies to use diesel equipment rated at 250 hp. operating at a 50% load factor over an 8-hour day, this Tier 3 unit would emit around 7 lb/day of NOx, which is substantially higher than the NOx emissions estimated in Table 4.3-3. The DEIR should specify whether Table 4.3-3 is based on using Tier 4 engines exclusively. | |
| DEIR pg. 4.3-21 | The DEIR relies on the 2005 Land Use Handbook that recommends 500 ft setbacks on highly used roads greater than 50,000 vehicles per day. This 2005 document is now outdated as CARB released their advisory Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways in 2017. The more recent research concludes, “near-roadway pollution exposure had been previously underestimated and that people living as much as 1,000 feet from freeways were being adversely impacted by poor air quality”. The DEIR needs to be updated to reflect this more current research and recirculated to disclose that research to the public and decision makers. | O6-12 |
| DEIR pg. 4.3-21 | The DEIR proposes modifying policy COS-7.2 to require new discretionary oil wells be located a minimum of 1,500 ft from a residence and 2,500 ft from a school. As stated in | O6-13 |

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| | <p>previous comments, the DEIR allows schools and residences to be sited within 500 ft of a high-traffic freeway. CARB routinely states that diesel exhaust is responsible for 70% of the cancer risk from airborne toxics in California (for example https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts). If 500 ft is sufficient to protect a person from diesel exhaust that accounts for 70% of the cancer risk, how can anyone justify a larger buffer zone around a discretionary oil well due to presumed toxic air contaminants? The existing zoning standards are adequate to protect the public from new oil wells; the imposition of the proposed new policy is not supported by scientific evidence.</p> | O6-13 cont. |
| DEIR pg. 4.3-22 | <p>Policy HAZ-10.X. When describing setback requirements for transportation corridors, residences are included within the discussion of sensitive receptors. As stated above in a preceding comment, the County should more clearly identify when residences are considered sensitive receptors.</p> | O6-14 |
| DEIR: pg. 4.4-2 | <p>Recommended textual change shown in bold and underline: “Based on an updated review of the CNDDDB, as well as a search of the California Native Plant Society (CNPS), Inventory of Rare and Endangered Plants of California database, the U.S. Fish and Wildlife Service (USFWS), and the Information for Planning and Consultation database, there are 75 additional special-status plant species known or with potential to occur in Ventura County (Table 4.4-1) (CNDDDB 2019; CNPS 2019; USFWS 2019).”</p> | O6-15 |
| DEIR: pg. 4.4-10 | <p>Recommended textual change shown in bold and underline: “the County’s aerial imagery and other relevant biological GIS data layers such as wetlands, waterbodies, vegetation, habitat connectivity and wildlife corridors; and updated CNDDDB, CNPS, Inventory of Rare and Endangered Plants of California database, and USFWS Information for Planning and Consultation database search results (CNDDDB 2019; CNPS 2019; USFWS 2019).”</p> | O6-16 |
| DEIR: pg. 4.4-14 | <p>Recommended textual change shown in bold and underline: “Based on the review and recommendation of a qualified biologist the County shall identify sensitive biological resources as part of any land use designation change to the General Plan Land Use Diagram or zone designation change to the Zoning Ordinance that would intensify the uses in a given area. The County shall prioritize conservation of areas with sensitive biological resources. (MPSP) [Source: New Policy]”</p> <p>It is critical that a qualified biologist ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc.</p> | |
| DEIR: pg. 4.4-15 | <p>Recommended textual change shown in bold and underline: “Consideration of Impacts to Wildlife Movement. When considering proposed discretionary development, County decision-makers the County shall consider the development’s potential project-specific and cumulative impacts on the movement of wildlife on the recommendation of and based on evidence supplied by a qualified biologist at a range of spatial scales including local scales (e.g., hundreds of feet) and regional scales (e.g., tens of miles). (RDR) [Source: Wildlife Corridor Policy 3/19/19]”</p> <p>It is critical that a qualified biologist ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc.</p> | O6-17 |
| DEIR: pg. 4.4-16 | <p>Recommended textual change shown in bold and underline: “Policy COS-1.13: Partnerships for Protection of Natural and Biological Resources. The County shall</p> | |

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| | continue to work in partnership with agencies, organizations, <u>property owners, business owners</u> and entities responsible for the protection, management, and enhancement of the county's biological resources.” |
| DEIR: pg. 4.4-17 | Recommended textual change shown in bold and underline: “ <u>Program A: Standards for Compact Development.</u> The County shall update the Non-Coastal Zoning Ordinance to include development standards for project design that features compact development adjacent to scenic or sensitive biological resources, <u>as determined by a qualified biologist.</u> [Source: New Program]” It is critical that a qualified biologist to ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc. |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ <u>Program D: Research Feasibility of Updating Vegetation Maps.</u> In partnership with other natural resource agencies, <u>businesses owners, property owners</u> and organizations, the County shall explore the feasibility of updating vegetation maps for unincorporated areas to facilitate the accurate analysis of potential impacts of development on vegetation communities and other sensitive biological resources.” It is critical that all impacted entities are involved in the partnership of updating vegetation maps. |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ <u>Program E: Update Non-Coastal Zoning Ordinance Standards for Vegetation Communities.</u> Based on the results of implementation Program COS-D, (updated vegetation mapping), the County shall develop or modify regulations and development standards to ensure adequate protections for vegetation <u>mapping</u> , if necessary.” |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ <u>Program F: Evaluate Increase to Standard Setback from Wetland.</u> A County- <u>approved, qualified biologist</u> shall evaluate whether a standard 200-foot setback from wetlands should apply to development in order to improve water quality, reduce the impacts of flooding and provide adequate protection for sensitive biological resources [Source: New Program]” |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ <u>Program H: County Tree Planting Program.</u> The County shall plant at least one thousand <u>native-species</u> trees annually on County property. [Source: New Program].” |
| DEIR: pg. 4.4-20 | Recommended textual change shown in bold and underline: “The Rural land use designation would allow for low-density and low-intensity land uses such as residential <u>uses es</u> and other rural uses which are maintained in conjunction with agricultural and horticultural uses.” |
| DEIR: pg. 4.4-21 | Recommended textual change shown in bold and underline: “...invasive, nonnative species), as a result of future development under the 2040 General Plan. Future development under the 2040 General Plan that could result in impacts on biological resources <u>and therefore may</u> require project-specific environmental review <u>under CEQA.</u> ” |
| DEIR: pg. 4.4-31 | Recommended textual change shown in bold and underline: “Policies COS-1.7, COS-1.8, COS-1.9, COS-1.10, and COS-1.11 include requirements <u>to requirements</u> for environmental review for projects within 300 feet of wetland habitat, implementation of |

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| | 100-foot setbacks from wetland habitat, incorporation of protective design features to avoid impacts to riparian habitat.” | O6-20 cont. |
| DEIR: pg. 4.7-3 | Policy Haz 4.2. The DEIR should disclose the location of known, active faults (this information is readily available) and examine the physical consequences of linear infrastructure around same. Since the location of anticipated development and the type of development in such locations is known and disclosed in the DEIR, the rerouting consequences can be considered, quantified and mitigated now. | O6-21 |
| DEIR: pg. 4.7-3 | Policy Haz 4.6. This policy potentially interferes with state water board regulations regarding storm water run-off pollution prevention. | O6-22 |
| DEIR: pg. 4.7-4 | Policy Haz 4-15. The DEIR assumes, without any credible supporting evidence, that “extraction wells” cause or contribute to land subsidence. It can be shown, by readily available substantial evidence, that rock matrices within the County are not susceptible to land subsidence with proper material balance. | O6-23 |
| DEIR: pg. 4.8-1 | Incomplete Regulatory Setting. There is no mention of the California Global Warming Solutions Act of 2006 (AB32), the Regulation for Mandatory Reporting of Greenhouse Gas Emissions (MRR), or State Cap and Trade program in the DEIR. It is imperative that these regulations be identified and discussed in the DEIR (as opposed to being discussed in passing in the 1000+ page Background Report). | O6-24 |
| DEIR pg 4.8-5 | The California Air Resources Board (CARB) partnered with Scientific Aviation Inc. to measure methane emissions within California. Their report Statewide Airborne Methane Emissions, Measurement Survey dated May 13, 2019 concludes, “landfill sites were found to be the largest methane emitters on a per site basis”. The report describes how an aircraft flew 18 times around the Toland Road Landfill in Ventura County on October 16, 2017 and another 16 laps on May 14, 2018 measuring methane emissions. Using this data, the report concludes that the methane emissions from the Toland Road Landfill averages 2,364.9 kg/hr, which equates to approximately 20,700 MT/yr of methane. The DEIR assigns methane a global warming potential of 28, so the Toland Road Landfill would average 580,000 MT/yr CO2e based on this CARB sponsored study. The DEIR estimated the GHG emissions from the same landfill to be 22,591 MT CO2e from waste generated from unincorporated Ventura County during 2015 and 74,701 MT CO2e from “waste-in-place”, for a total of 97,292 MT/yr CO2e from the Toland Road Landfill. The DEIR should evaluate the various methods of determining GHG emissions from landfills to inform the readers that the GHG emissions from solid waste could be significantly higher than the estimates provided in the DEIR. | O6-25 |
| DEIR pg. 4.8-5 | The GHG emissions from solid waste in the County are further underestimated by ignoring the composting operations within the County. Although a properly operated composting operation can decrease methane emissions from waste, the process is designed to create CO2. The DEIR needs to be updated to account for waste diverted from landfills, which would include composting operations. | O6-26 |
| DEIR pg. 4.8-5 | The 2015 baseline GHG inventory for stationary sources is listed as 275,096 MT CO2e in Table 4.8-1. This estimate is described in Appendix D as representing GHG from oil and gas operations and the source is “CARB Mandatory Reporting Rule – 2016 (Latest available as of 11/6/2017)”. Various entities report their GHG emissions to CARB via their Mandatory Reporting Regulation (MRR). The regulation requires that the reported GHG emissions be verified by a third-party approved by CARB. After verification, CARB publishes a list of all entities reporting under the MRR and posts on their website | O6-27 |

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| | <p>(https://ww2.arb.ca.gov/mcr-data). This CARB published data shows that only three entities in the County reported in 2016 under the Oil and Gas Production industry sector. These three oil and gas production entities in Ventura County reported a total of 21,702 MT CO₂e. To put this in perspective, California State University, Channel Islands reported 84,042 MT CO₂e for the same timeframe. Nevertheless, the DEIR erroneously construes oil and gas operations as a major source of GHG emissions in the County. This misleads the public and the decision makers.</p> | <p>O6-27 cont.</p> |
| <p>DEIR 4.8-5</p> | <p>In lieu of focusing on GHG data specific to the County, the DEIR apparently applies data for the entire State to estimate GHG emissions from the County with no explanation as to why. Oil production and processing techniques vary throughout the State depending on the geologic formation being produced. CARB has recognized this variability and has developed carbon intensity values for the numerous crude oils needed to fuel California. As stated above, a total of three oil and gas production entities in Ventura County reported a total of 21,702 MT CO₂e. These three facilities produced approximately 6,370,000 bbls of crude oil in 2016 versus the total crude oil production of 7,729,845 bbls within the County. As such, these three facilities accounted for 85% of Ventura County's oil production. Applying the County's technique of estimating GHG emissions based on the amount of crude oil production, the oil and gas production and processing sector represented approximately 25,500 MT CO₂e emissions in 2016, which is significantly less than the GHG baseline estimate listed in the DEIR for stationary sources. The DEIR must explain why it is more accurate to ignore data specific to the County and rely on a generalized dataset.</p> | <p>O6-28</p> |
| <p>DEIR pg. 4.8-6</p> | <p>The projected GHG emissions from the "solid waste" sector as presented in Table 4.8-2 are more fully described in Appendix D. The methane emission projections for waste-in-place at in service landfills appear to be questionable. For example, the methane emissions from the Toland Road Landfill decreases from 74,701 MT CO₂e in 2015 to 66,248 MT CO₂e in 2020 for an 11% decrease in GHG emissions. Comparing the Simi Valley Landfill, which emitted 172,093 MT CO₂e in 2015 and dropping to 171,552 MT CO₂e in 2020 for only a 0.3% decrease. Considering that the Toland Road Landfill is scheduled to remain in service longer than any other landfill, please explain why the GHG emissions from the Toland Road Landfill decrease at much faster rate than the Simi Valley Landfill.</p> | <p>O6-29</p> |
| <p>DEIR pg. 4.8-6</p> | <p>The GHG projections from stationary sources provided in Table 4.8-2 appear to be based on the County's projections of increasing oil production. In Appendix D, the EIR utilizes a baseline oil production of 8,428,402 bbls/yr in 2015. By 2020, oil production in the County is forecasted to increase to 8,819,019 bbls/yr, accounting for a 4.6% increase in oil production over this five-year span. California provides annual summaries of oil production by county. The most recent report (www.conservation.ca.gov/calgem/pubs_stats/annual_reports/Pages/annual_reports.aspx) published by the Division of Oil, Gas and Geothermal Resources (DOGGR), now the California Geologic Energy Management Division, available is for 2018 and lists oil production in the County as 6,894,516 bbls/yr. Looking back to 2013, the same agency reported oil production from Ventura County as 8,973,076 bbls/yr. As reported by California, oil production in the County dropped 23% over a five-year span from 2013 to 2018, yet the DEIR projects oil production increasing 4.6% during a five-year span from 2015 to 2020. The DEIR needs to clearly describe why the County is projecting a drastic</p> | <p>O6-30</p> |

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| | turnaround in County oil production starting in 2019 and continuing into the foreseeable future. This assumption directly impacts the GHG projections listed in Table 4.8-2 and is not consistent with historical data or commonly available market projections. | O6-30 cont. |
| DEIR pg. 4.8-6 | In the DEIR analysis of Impact 4.12-3, the County concludes that the 2040 General Plan could hamper or preclude access to oil and gas resources. The DEIR considers this impact to be “potentially significant” even after considering available mitigation measures. Section 4.8 of the DEIR needs to be modified to describe how oil production in the County is projected to steadily increase into the foreseeable future, while the DEIR concludes in Section 4.12 that the General Plan could “preclude expansion of existing oil and gas operations, ... thereby hampering or precluding access to the resource.” | O6-31 |
| DEIR pg. 4.8-6 | The numerous errors made to overstate the GHG emissions from stationary sources are compounded when making projections in Table 4.8-2 to the point that these estimates cannot be taken seriously. First, the 2015 baseline emissions from stationary sources should be closer to 25,500 MT CO ₂ e using data from the County (as calculated above); not 275,096 MT CO ₂ e based on data from outside the County. Secondly, oil production is contracting in the County and not expanding as assumed in the DEIR. From 2013 through 2018, crude oil production in the County dropped on average 415,700 bbls/yr. Using this trajectory, crude oil production in the County should be closer to 6,100,000 bbls in 2020, as opposed to 8,819,019 bbls projected in the DEIR. Using the same method as utilized in the DEIR to project GHG emissions, the 2020 GHG emissions from stationary sources should be around 20,000 MT CO ₂ e (calculated as 25,500 MT CO ₂ e * 6,100,000 bbls / 7,729,845 bbls) | O6-32 |
| DEIR 4.8-9 | In describing the County’s obligation under CEQA, the DEIR states, “a lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emission resulting from a project.” As the County has chosen to particularly focus on oil and gas production in this DEIR, the County has fallen short of its obligation to describe the impact on GHG emissions due to the 2040 General Plan. There is consensus that climate change is a global issue. GHG reductions are necessary and the County must play a part, but the County cannot by itself thwart the impacts of climate change. To measure global issues such as climate change, the DEIR should not be geographically confined to County. Crude oil is a worldwide commodity openly traded on exchanges. As the DEIR notes in Section 4.12, only 31% of the crude oil consumed in California is produced in State. Shutting down all oil production in the County will not decrease the market for crude oil. To the contrary, California will just import more crude oil from other countries, with the same portion of the refined products, including gasoline and diesel, being transported to the County’s consumers. Therefore, GHG impacts due to oil and gas production in the County is dependent on the amount of carbon associated with the crude oil produced within the County. CARB publishes Carbon Intensity values for the various crude oil sources under their Low Carbon Fuel Standard Regulation. The most recent published data is from 2018 (https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/2018_crude_average_ci_value_final.pdf). In this report, CARB determined, on an annual average, the Carbon Intensity of the crude oil used in California during 2018 was 12.35 gCO ₂ e/MJ. According to the same report, the crude oil produced from the Ventura Field, the largest oil production field in the County, had a Carbon Intensity of 4.54 gCO ₂ e/MJ. As such, the crude oil from the Ventura Field results in 63% less GHG | O6-33 |

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| | emissions than the average crude oil used in California. The DEIR should be revised to describe the climate change benefits realized should the 2040 General Plan promote the continued use and expansion of crude oil produced within the County. |
| DEIR 4.8-23 | Policy COS 7.4. The County is proposing a policy to “require discretionary development for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible”. Is it the County’s position that only oil and gas exploration and production development projects contribute GHG emissions? If not, then such a policy should be expanded to include all discretionary development projects. By limiting this policy to oil and gas exploration and production development projects, the County is making an arbitrary determination not based on any facts presented in the record. |
| DEIR 4.8-23 | Policy COS 7.7. The County is proposing a policy to “require new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be trucked.” Numerous development projects can result in increased trucking including warehouses, agricultural processing facilities, military installations, and distribution centers. If the County is concerned with GHG emissions from trucking, why would this proposed policy be limited to new discretionary oil wells? There is no data in the DEIR suggesting that new discretionary oil wells are anticipated to cause a significant increase in GHG emissions due to trucking. The proposed policy should be revised to address discretionary development projects that would actually increase trucking or the County is making an arbitrary determination not based on any facts presented in the record. |
| DEIR 4.8-25 | The County is proposing to evaluate the feasibility of establishing a local tax on oil and gas operations. Later in Section 4.8 the DEIR states that increased taxes on oil and gas facilities may reduce GHG emissions. SB32 designates “the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases.” CARB has established a cap-and-trade program to regulate GHG sources, including oil and gas operations. In fact, the County attempts to rely on a GHG emission inventory from CARB in the DEIR to estimate the GHG emissions from stationary sources in the County. These stationary sources purchase GHG allowances during CARB authorized auctions to mitigate their GHG emissions. CARB then invests the auction proceeds to reduce GHG emissions in California. The County cannot usurp authority designated to a State agency. |
| DEIR 4.8-25 | GP 2040 and the accompanying DEIR does not establish a nexus between county GHG emissions and potentially establishing a local tax on oil and gas operations. As demonstrated in the County’s own documents, the DEIR concludes that stationary sources only contribute 14.5% of the calculated GHG emissions countywide in 2015 (even while overstating stationary source emissions as discussed in other comments). Transportation accounted for 36.5%, solid waste handling was 17.6% and buildings attributed 17%; all greater than the dramatically overstated GHG emissions from stationary sources, while understating GHG emissions from County operated solid waste operations. Why would the County not consider establishing/increasing local taxes on transportation fuels or establishing/increasing gate fees at the County landfills? Both sectors contribute significantly more GHG emissions in the County than oil and gas operations. If taxing an activity reduces GHG emissions from that sector (a highly speculative position), then why would increased taxes/fees from transportation and solid waste disposal not decrease GHG emissions? The County appears to be arbitrarily |

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| | burdening a single industry sector by increasing taxes with no regard to the data presented in the DEIR. | O6-35 cont. |
| DEIR pgs. 4.8-11 through 4.8-37 | Multiple 2040 General Plan Policies and Implementation Programs are listed in this section (GHG). However, a significant number of these Policies and Programs have absolutely nothing to do with Greenhouse Gas Emissions or climate change (examples include Policies CTM-2.1, CTM-2.10, CTM-2.19, PFS-4.4, COS-2.10, WR-4.1, Implementation Program J, Implementation Program M, etc.) | O6-36 |
| DEIR pg. 4.8-23 | Policy COS 7.4. The DEIR does not consider the consequences of, defects of, or infeasibility of this policy. California and the County are net importers of energy—as an importer, the County cannot necessarily control whether imported energy is provided from 100 renewable sources. Thus, this policy is potentially infeasible to implement. | O6-37 |
| DEIR pg. Pg. 4.8-50 | Recommended textual change shown in bold and underline: "... the County cannot meaningfully quantify the effect of all its 2040 General Plan policies and programs on future GHG emissions, and there therefore , it cannot conclude, at this program level of analysis, that future GHG emissions in the county under the 2040 General Plan would be sufficiently reduced to meet the State's 2030 or post-2030 targets." | O6-38 |
| DEIR pg. Pg. 4.8-52 | Recommended textual change shown in bold and underline: "However, due to the County's minimal growth, most of the forecast GHG emissions in 2030 and beyond are caused or influenced by from energy use in existing buildings, vehicle use and travel behavior on existing transportation systems, landfilled waste, and agricultural uses where the County has limited authority to enforce stringent actions resulting in GHG reductions beyond what have been already been included in the 2040 General Plan and the mitigation measures identified in Impact 4.8-2." | O6-39 |
| DEIR pg. 4.9-7 | Policy HAZ – 5.5. The DEIR fails to define "alternative technology" for management of hazardous waste. It is unclear whether such technology even exists. Furthermore, the DEIR fails to disclose and evaluate the consequences of onsite treatment of hazardous waste. The location of future development is known, as is the location of future development expected to involve onsite use of hazardous materials (e.g. industrial uses). The foreseeable potential impacts of onsite waste treatment at these locations must be evaluated in the DEIR. | O6-40 |
| DEIR pg. 4.9-24 | The term "structure" is undefined for purposes of brush clearing. As a result, a reader of the DEIR cannot determine the scope of physical consequences associated with brush clearing (amount of soil disturbed, amount of vegetation disturbed, impacts to water quality from soil disturbance). Moreover, the DEIR fails to disclose and consider such physical consequences, which may be severe, depending on how the term "structure" is defined. | O6-41 |
| DEIR pg. 4.10-5 | "Policy PFS-6.5. Stormwater Drainage Facilities. The County shall require that stormwater drainage facilities are properly designed, sited, constructed, and maintained to efficiently capture and convey runoff for flood protection and groundwater recharge (RDR)." The DEIR does not define what constitutes "stormwater drainage facilities" (e.g. drain, basin, treatment plant). As such it is impossible to determine the scope of the policy and any associated physical consequences (such as construction disturbance). | O6-42 |
| DEIR pg. 4.10-5 | "Policy PFS-6.7. Flood Control and Beach Sand Nourishment. The County shall include beach sand nourishment as an important factor in the design and maintenance of | O6-43 |

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| | <p>flood control facilities. (SO) [New Policy]"</p> <p>The DEIR does not define the term "flood control facilities." Again, this makes it impossible to understand the applicability and scope of this policy.</p> | O6-43 cont. |
| DEIR pg. 4.10-5 | <p>Recommended textual change shown in bold and underline: Policy HAZ-2.1: Principal Floodway Purpose. The County should limit <u>new</u> land use in the regulatory floodway, as identified in the Ventura County Flood Plain Management Ordinance, limited to open space, agriculture, <u>pre-existing structures</u> or passive to low intensity recreational uses, subject to the approval of the County Public Works Agency. The floodway's principal use should be maintained for safely conveying floodwater away from people and property while protecting ecological functions of the <u>Ventura</u> river. (RDR) [Source: Existing GPP Policy 2.10.2.1, modified]."</p> | O6-44 |
| DEIR pgs. 4.11-7 through 4.11-88 | <p>The DEIR's definition of and treatment of oil and gas resources as separate from/different from mineral resources is a significant error and is inconsistent with superior state/federal law as well as controlling court decisions. The DEIR's mischaracterization of oil and gas as not amounting to a mineral resource renders all analyses and impact conclusions relating to same legally defective.</p> | O6-45 |
| DEIR pg. 4.11-8 | <p>Policy LU 6.1. Agricultural Buffers: The DEIR vaguely describes the imposition of buffers for agricultural uses without any measurable values/distances for these buffers. Thus it is impossible to evaluate the consequences such buffers will have on future adjacent land uses. Moreover, the DEIR is inconsistent with respect to the imposition of buffers at measurable distances for certain uses as opposed to others. Certain, measurable buffer distances (such as the proposed setback for oil and gas production) are imposed, while other uses are subject to no such measurable setbacks. This will result in a nonsensical patchwork of development. Reading the DEIR's land use section as a whole, a future mineral extraction use in a location zoned for extraction would be held to a measurable setback in terms of future expansion, but a residential use with no measurable setback limitations could be installed immediately adjacent to a mineral extraction use.</p> | O6-46 |
| DEIR pg. 4.11-16 | <p>Policy HAZ-2.3. The DEIR fails to disclosure what constitutes an "incompatible land use." This disclosure cannot be deferred, given that the scope and number of uses deemed "incompatible" will have dramatic physical consequences. If a large number of uses are "incompatible," then the near-total inability to develop in the flood plain is a direct physical consequence that must be considered now.</p> | O6-47 |
| DEIR pgs. 4.11-1 through 4.11-24 | <p>The GP 2040 zoning map/land use map referenced throughout the DEIR's land use section is not contained in the land use section. A reader has no way to review this section side-by-side with the maps being referenced.</p> | O6-48 |
| DEIR pg. 4.12-8 | <p>COS Revised Policy 7.2. As discussed above, the setback criteria proposed with adoption of GP 2040 affects selected, targeted industries. While oil and gas operations cannot expand to within 1500 feet of a "sensitive" use, such "sensitive" uses could certainly expand to within mere feet of existing oil and gas operations. This evidences the fact that this setback measure is not being adopted for a legally proper purpose.</p> | O6-49 |
| DEIR pg. 4.12-8 | <p>Policy COS 7.3. This Policy unlawfully impairs vested property rights and disregards well-settle controlling law concerning a mineral owner's right to recover resources from his or her sub-surface property. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed.</p> | O6-50 |

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| DEIR pg. 4.12-8 | Policy COS 7.7. This policy is preempted by state and federal regulations. The DEIR disregards this. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed. | O6-51 |
| DEIR pg. 4.12-21 | The DEIR concedes that the majority of the COS policies to be adopted as part of the proposed GP 2040 are adopted for the express purpose of phasing out local oil and gas production within the County. The DEIR further concedes that the County will, as a direct result of this proposed phase-out, need to import foreign sources of oil and gas, and further acknowledges that the importation of such sources will have a more severe GHG production impact than reliance on local oil and gas resources. The DEIR then unlawfully punts on consideration of that more severe impact by stating that those impacts will occur "outside the GP 2040 plan area." This abdication of responsibility for GHG analysis is not only hypocritical given GP 2040's objective of combating climate change, but also unlawful. The more severe GHG impacts associated with the importation of foreign oil and gas are known and must be considered now. To omit this evaluation is to deprive the public and decision makers of the ability to fully and fairly understand and consider the impacts of adopting GP 2040. | O6-52 |
| DEIR pg. 4.12-21 | <p>The DEIR's unsupported conclusions regarding horizontal drilling access are demonstrably false. The DEIR states that: "[w]hile the amended policy would put limitations on the placement of new discretionary oil and gas wells, it would not necessarily prohibit access to the oil and natural gas resources being sought. In resource locations near sensitive land uses, directional drilling (including horizontal drilling) techniques could be utilized.</p> <p>Ample evidence, readily available to the DEIR preparers, disproves the foregoing. The aforementioned GP 2040 Policy (COS 7.2) impairs access to and recovery of approximately 80 million bbls of reserves/resources. The structural makeup of the reservoirs containing these reserves does not allow for horizontal drilling due to an average bed thickness of 2ft. A vertically stacked thinly bedding reservoir would require hundreds of wells to produce the 400-1500ft of interval and this is not economically viable in any historical economic condition. Directional drilling would not be possible to replace all of the reserves/resources due to terrain surrounding this area limiting surface locations as well the reservoir structural need to drill north-south directional paths from east or west locations.</p> | O6-53 |
| DEIR pg. 4.12-27 | COS Policy 7.8. This policy is not only preempted, but is also inconsistent with VCAPD rule 54 as it notes that all new well gas would be piped through the same gathering system in existing fields. Outside of running a new pipeline to a different gas processing system, there would be no way to break out the gas from the general field production that goes through the current gathering system through the gas plant, sales point, or flare. | O6-54 |
| DEIR pg. 4.13-14 | The elimination of back up alarms on equipment creates a direct, increased safety risk that is not considered in the DEIR. | O6-55 |
| DEIR pgs. 4.13-1 through 4.13-29 | The DEIR makes numerous, unsupported assumptions regarding the noise generated by oil and gas operations. Oil and gas operations generate noise equivalent to other industrial uses. The DEIR does not, and cannot, provide evidence demonstrating that oil and gas production generates noise above and beyond the noise levels generated by industrial activities, let alone that it produces objectionable noise. | O6-56 |

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| Letter O6 | Aera Energy LLC John W. Borchard, Jr., Chief Financial Officer February 27, 2020 |
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- O6-1 The description of the commenting organization’s role and operations in Ventura County are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required. The comment also summarizes more detailed comments provided elsewhere in the comment letter. Refer to responses to comments O6-2 to O6-56 that address the specific comments identified in this letter.
- O6-2 Policy NV-1.12, as provided on page 4.1-16 of Section 4.1, “Aesthetics,” in the draft EIR is an existing policy in the North Ventura Avenue Area Plan. This policy states that the “State and the County of Ventura recognizes Highway 33 as eligible for official designation as a State adopted scenic highway” and explains that the State requires a corridor protection plan before official designation. The policy also states that the portion of Highway 33 considered the “scenic approach” into the City of Ventura may shift if the boundary of the city changes due to incorporation of additional land.
- This policy would not have an adverse effect on scenic resources. Further, given that this policy is part of the North Ventura Avenue Area Plan, it would not conflict with the land use plan or scenic resources specific to this area.
- O6-3 Through Implementation Program J, the County would seek official State Scenic Highway designations for County-designated Scenic Highways. County-designated Scenic Highways are already subject to the Scenic Resources Overlay Zone of the Non-Coastal Zoning Ordinance, which regulates discretionary development that could affect scenic resources. This policy “would increase the protection of scenic resources visible from scenic highways” (draft EIR page 4.1-23); it would not substantially change the development requirements in these areas. There are no reasonably foreseeable indirect adverse effects of this program. Eligible highways are discussed in the Background Report (see page 8-64) and the impact analysis (draft EIR page 4.1-25 and depicted on Figure 8-8 in the Background Report.
- O6-4 The draft EIR acknowledges existing zoning restrictions in the analysis. Page 4.1-23 states:
- Future development within the Scenic Resource Protection Overlay Zone would be required to comply with Section 8109-4.1.5 of the NCZO, described above. Together the NCZO regulations for the Scenic Resource Protection Overlay Zone and 2040 General Plan policies would require future development to not result in physical alteration of scenic resources. In addition, as required by Section 8107-5.5.3, new discretionary oil drill sites and production facilities shall be sited so they are not readily seen.

Similarly, page 4.1-25 indicates that “Section 8109-4.1.5 of the NCZO...requires that all discretionary development within the Scenic Resource Protection Overlay Zone to be sited and designed to prevent significant degradation of a scenic view or vista.” The NCZO requirements are part of the existing conditions and are not a consequence of the 2040 General Plan.

O6-5 The comment claims that the County’s definition of a sensitive receptor would not include a residence. The comment then asks why a typical residence would be excluded from the toxic air contaminant analysis. Specifically, the comment quotes the draft EIR’s definition as “sensitive receptors are considered to be populations or uses that are more susceptible to the effects of air pollutant than the general population.” However, this is only part of the definition for sensitive receptors used in the draft EIR. As stated on page 4.3-5 of the draft EIR, the definition continues to say “... such as long-term health care facilities, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds.” The definition of sensitive receptors used for the toxic air contaminant analysis includes residences. No revisions to the draft EIR are required.

O6-6 Thresholds of significance are the benchmark against which projects are evaluated to determine whether physical environmental changes that could be reasonably expected to result from project implementation would be “significant” as determined by the lead agency. The thresholds can be qualitative or quantitative, and the determination of significance can vary based upon context.

Public agencies are encouraged to develop and publish thresholds of significance that are used in the determination of the significance of environmental effects (CEQA Guidelines, § 15064.7(b)). The current Initial Study Assessment Guidelines (ISAG), last amended by the County in April of 2011, set forth the standard threshold criteria and methodology used in determining whether a project could have a significant effect on the environment. The ISAG were originally adopted in 1992 by the directors of those County agencies/departments responsible for evaluating environmental issues and by the County’s Environmental Quality Advisory Committee following a public outreach process that included public notification and workshops, and appropriate revisions. Similarly, all subsequent amendments to the ISAG have included public notification and review prior to their adoption in accordance with the State CEQA Guidelines and the County’s Administrative Supplement to the State CEQA Guidelines.

For the purpose of evaluating the potential environmental effects of implementing the 2040 General Plan, the thresholds of significance are based on the ISAG, as well as the checklist presented in Appendix G of the State CEQA Guidelines; best available data; and the applicable regulatory standards of the County and federal and state agencies with jurisdiction over the resources at issue. As explained in Section 4.1, “Environmental Impact Analysis,” (page 4-1) and described in detail for each resource analysis, “deviation from the ISAG thresholds, was sometimes necessary to appropriately consider the programmatic nature of a general plan for the entire unincorporated area, and to incorporate the 2019 revisions to the Appendix G checklist.”

In each of the resource-specific sections of the draft EIR (Sections 4.1 through 4.17), the “Environmental Impacts and Mitigation Measures” subsection identifies the thresholds used to determine the level of significance of the environmental impacts for the resource topic, in accordance with State CEQA Guidelines Section 15126. These thresholds appropriately set the parameters for what is evaluated in the EIR.

Regarding TAC emissions, the 2040 General Plan was evaluated for its potential to expose the public to substantial TAC emissions that exceed 10 in 1 million for carcinogenic risk, as is presented in on page 4.3-6 of the draft EIR. Impact 4.3-5 evaluates the potential for this threshold to be exceeded. No revisions to the draft EIR are needed.

- O6-7 The comment suggests flares from landfills and wastewater treatment plants be considered in Policy COS-7.8 of the 2040 General Plan. The comment then states that if this addition to Policy COS-7.8 is not considered, then the draft EIR should describe how the pollution from a flare at a landfill or wastewater treatment plants differs from an oil and gas well flare. As discussed on page 4.3-18 of the draft EIR, “Stationary sources, such as boilers, heaters, flares, cement plants, and other types of combustion equipment associated with industrial uses undergo a permitting process by VCAPCD [Ventura County Air Pollution Control District]...Stationary sources are required to implement and comply with applicable VCAPCD rule(s) for their specific operation.” Thus, flares associated with landfills and wastewater treatment plants would be required to comply with VCAPCD rules specific to air pollutant emissions regardless of General Plan policies. No revisions to the draft EIR are needed.
- O6-8 The comment asserts that the draft EIR does not provide evidence to support the assumption made in Impact 4.3-2 that construction emissions would exceed countywide thresholds. As stated on page 4.3-13 of the draft EIR, “construction activities were estimated to occur at a constant rate over the 2040 General Plan horizon period of 20 years. Specific modeling inputs to derive emissions estimates can be found in Appendix C of the draft EIR. Table 4.3-1 of the draft EIR shows the land use assumptions used in the emissions modeling. Based on the modeling conducted and presented in Table 4.3-2, construction-generated NO_x emissions would exceed countywide thresholds, as well as Ojai Valley thresholds. With implementation of Mitigation Measures AQ-1a, AQ-1b, AQ-2a, and AQ-2b, maximum daily construction emissions would be reduced below the countywide threshold but would remain above the Ojai Valley threshold. This is shown in Table 4.3-3 of the draft EIR.
- O6-9 The comment states that Mitigation Measures AQ-1a and AQ-1b are duplicative. While both mitigation measures seek to reduce construction-generated air pollutant emissions, they are different in how they would be included in the 2040 General Plan. Mitigation Measure AQ-1a would be a new policy and Mitigation Measure AQ-1b would be a new implementation program that would carry out the policy included in Mitigation Measure AQ-1a. No revisions to the draft EIR are required.

- O6-10 Refer to Master Response MR-7 regarding recirculation of a draft EIR. The comment asserts that use of water trucks needed to implement Mitigation Measure AQ-2a was not evaluated for its potential impacts to emissions and water use. The amount of water needed to mitigate fugitive dust emissions would depend on the size of the area disturbed, wind speed, season, and other external factors as described on page 4.3-13 of the draft EIR. Additionally, as stated in Mitigation Measure AQ-2a, the use of water trucks would only be required during the primary stages of construction when excavation and grading occurs, which is often one of the shortest phases of construction. Further, water demand during the construction phase is usually substantially less than the average daily demands. Water use is not usually based on total usage, but average daily usage. Because of the programmatic nature of the draft EIR, it is not possible to know individual discretionary project's fugitive dust emissions or demand for water trucks. No revisions to the draft EIR are required.
- O6-11 Refer to response to comment A14-2 explaining that the County has revised Mitigation Measure AQ-1b to require use of Tier 3 or Tier 4 diesel engines in all off-road construction diesel equipment.
- O6-12 Refer to Master Response MR-7 regarding recirculation of a draft EIR. The comment suggests that use of the California Air Resources Board's (CARB's) 2005 Air Quality and Land Use Handbook for siting receptors near high-volume roadways be revised to match CARB's 2017 Technical Advisory: Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. This advisory states: "the possibility that near-roadway pollution exposure had been previously underestimated and that people living as much as 1,000 feet from freeways were being adversely impacted by poor air quality at night and in the early morning." While the guidance has provided an updated exposure distance, it remains a recommended distance for new development and the draft EIR analysis does not rely on this distance for an impact significance determination. However, in response to this comment, Mitigation Measure AQ-3 is revised to reflect the 1,000-foot setback distance.

Mitigation Measure AQ-3 on page 4.3-22 of the draft EIR is revised as follows:

Mitigation Measure AQ-3: New Policy HAZ-10.X: ~~Setback Requirements~~ Health Risk Assessments for Sensitive Land Uses Near Heavily Traveled Transportation Corridors
The County shall include the following new policy in the 2040 General Plan.

Policy HAZ-10.X: ~~Setback Requirements~~ Health Risk Assessments for Sensitive Land Uses Near Heavily Traveled Transportation Corridors

The County shall require discretionary development for land uses which that include sensitive receptors which are considered to be (populations or uses that are more susceptible to the effects of air pollution than the general population, such as long term health care facilities, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds) are be located at least 500 1,000 feet from any freeway or urban road with traffic volumes that exceed 400,000 vehicles per day, or

~~rural roads that exceed~~ 50,000 vehicles per day. New sensitive receptor ~~use~~ structures can be located within ~~500~~ 1,000 feet from a new or existing ~~freeway or urban~~ road with traffic volumes that exceed 100,000 vehicles per day, ~~or rural road with traffic volumes that exceed~~ 50,000 vehicles per day only if a project applicant first prepares a qualified, site-specific health risk assessment (HRA). The HRA shall be conducted in accordance with guidance from VCAPCD and approved by VCAPCD. If the HRA determines that a nearby sensitive receptor would be exposed to an incremental increase in cancer risk greater than 10 in 1 million, then design measures shall be incorporated to reduce the level of risk exposure to less than 10 in 1 million. No further action shall be required if the HRA demonstrates that the level of cancer risk would be less than 10 in 1 million. Project design features that may be considered in an HRA may include, but are not limited to: installing air intakes furthest away from the heavily traveled transportation corridor; installing air filtration (as part of mechanical ventilation systems or stand-alone air cleaner); using air filtration devices rated MERV-13 or higher; requiring ongoing maintenance plans for building HVAC air filtration systems; limiting window openings and window heights on building sides facing the heavily traveled transportation corridor; or permanently sealing windows so they don't open on the side of the building facing the heavily traveled transportation corridor; and installing vegetative barriers, considering height and cover thickness, to create a natural buffer between sensitive receptors and the emissions source. For purposes of this policy, "sensitive receptors" means populations or uses that are more susceptible to the effects of air pollution than the general population such as long-term health care facilities, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds.

Refer to response to comment A14-6 for additional discussion of revisions to Mitigation Measure AQ-3.

- O6-13 Refer to Master Response MR-4, Section MR-4.H, "Buffers (Setback)," and Section MR-4.E, "Applicability of Reference Studies for Oil and Gas Operations," regarding the findings and conclusions related to setbacks and to the applicability of reports relied upon for these findings and conclusions.
- O6-14 Refer to response to comment O6-5 regarding the definition of sensitive receptor.
- O6-15 This comment recommends a contextual change to page 4.4-2 of the draft EIR. The recommended contextual change is incorrect, and the original version of the sentence in question is correctly presented. The comment is noted and further response is not required.
- O6-16 This comment recommends a contextual change to page 4.4-10 of the draft EIR. The recommended contextual change is incorrect, and the original version of the

sentence in question is correctly presented. The comment is noted and further response is not required.

- O6-17 The comment provides suggested edits to policies proposed in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General Plan.

The 2040 General Plan policies, as written, require that a qualified biologist ensures that sensitive biological resources are accurately identified, and that identification/designation is consistent with base mapping (Policy COS-1.1: Protection of Sensitive Biological Resources).

- O6-18 The comment recommends a text change to page 4.4-20 of the draft EIR to correct a typo. The following paragraph has been edited accordingly.

The Rural land use designation would allow for low-density and low-intensity land uses such as residential uses and other rural uses which are maintained in conjunction with agricultural and horticultural uses or in conjunction with the keeping of farm animals for recreational purposes, such as greenhouses, principal and accessory structures related to agriculture, and also oil and gas wells, and would apply to approximately 0.9 percent of land in the unincorporated county.

- O6-19 This comment recommends a contextual change to page 4.4-21 of the draft EIR. The recommended contextual change is incorrect, and the original version of the sentence in question is correctly presented. The comment is noted and further response is not required.

- O6-20 The comment recommends a text change to page 4.4-31 of the draft EIR to correct a typo. The following paragraph has been edited accordingly.

In addition to existing federal and State laws and permitting processes, the 2040 General Plan includes several policies and implementation programs that would further reduce potential impacts on wildlife corridors and native wildlife nursery sites and require project-level environmental review and mitigation for significant impacts (see “General Plan Update Policies and Implementation Programs,” above). For example, Policies COS-1.1 and COS-1.2 address the protection and consideration of sensitive biological resources, which include wildlife movement corridors and native wildlife nursery site. Because these features are typically considered sensitive biological resources, implementation of Policies COS-1.1 and COS 1.2 would require evaluation of these features during site-specific surveys as well as development of mitigation measures to avoid, minimize, or compensate for impacts. Policies COS-1.7, COS-1.8, COS-1.9, COS-1.10, and COS-1.11 include requirements ~~to requirements~~ for environmental review for projects within 300 feet of wetland habitat, implementation of 100-foot setbacks from wetland habitat, incorporation of protective design features to avoid impacts to riparian habitat, and requirements for

consultation with natural resources agencies for guidance regarding avoidance and minimization of impacts to rare, threatened, or endangered species. These requirements would have an indirect benefit on wildlife movement corridors and native wildlife nursery sites as these features are frequently associated with sensitive biological habitats (e.g., wetlands, riparian corridors). Policies COS-2.2, COS-2.4, COS-2.8, COS-2.9, COS-2.10, COS-2.11 address habitat conservation and protection of fisheries and marine resources within the Coastal Zone. Policies COS-1.3, COS-1.4, and COS-1.5 specifically address impacts on wildlife movement. For instance, the County is required to consider impacts to wildlife movement as part of the discretionary project review process, and the design and maintenance of floodplain improvements including culverts and bridges must be reviewed by a qualified biologist to accommodate feasible wildlife passage measures. Policy COS-9.3 addresses preservation of open space lands for habitat protection and wildlife movement. Development within the county will also be guided by nine Area Plans; however, the policies of these Area Plans do not provide additional or more specific protection for resident or migratory wildlife corridors or native wildlife nursery sites than the 2040 General Plan policies.

O6-21 Policy HAZ-4.2 is presented on page 4.7-3 of the draft EIR as it appears in the 2040 General Plan. Through this policy, the County would:

require that linear projects, including roads, streets, highways, utility conduits, water transmission facilities, and oil and gas pipelines, avoid intersecting active faults to the extent possible. When such locations are unavoidable, the project design shall include measures to minimize the effects of any fault movement.

The policy is cited in the discussion of Impact 4.7-1 as one of the many reasons that implementation of the 2040 General Plan would not expose people or structure to fault rupture hazards, or directly or indirectly cause fault rupture.

The 2040 General Plan establishes a land use plan that identifies the types of development that could occur throughout the plan area. Specific developments proposals cannot be known at this time and examination of the physical consequences of specific infrastructure projects is not possible. However, the physical effects of infrastructure necessary to support anticipated development are evaluated throughout the draft EIR and are within the body of the potential ground disturbance assumed with implementation of the 2040 General Plan.

O6-22 Policy HAZ-4.6 is provided on page 4.7-3 of the draft EIR as it appears in the 2040 General Plan. The County would require discretionary development to minimize the removal of vegetation to protect against soil erosion, debris flows, and landslides. The County's authority does not supersede State regulation; however, minimization of clearing would be determined based on consistency with other applicable regulations.

The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is

acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adoption of the Final 2040 General Plan.

O6-23 Policy HAZ-4.15 is provided on page 4.7-4 of the draft EIR as it appears in the 2040 General Plan. The policy would require that potential ground surface subsidence be evaluated prior to approval of new oil, gas, water or other extraction well drilling permits and appropriate and sufficient safeguards are incorporated into the project design and facility operation. The draft EIR cites implementation of this policy to support the conclusion that implementation of the 2040 General Plan would have a less-than-significant impact as a result of development expose people or structures to subsidence or cause subsidence if located within a subsidence hazard zone (refer to the discussion of Impact 4.7-6). To this end, if an extraction well could cause or contribute to land subsidence if proper material balance is not employed, this policy would address this condition.

O6-24 The comment requests that the California Global Warming Solutions Act of 2006, the Regulation for Mandatory Reporting of Greenhouse Gas Emissions, and the State's Cap-and-Trade regulation be included in the draft EIR rather than in the Background Report.

The California Global Warming Solutions Act of 2006 is discussed in detail in the Background Report. Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR. The County agrees with the addition of the Regulation for Mandatory Reporting of Greenhouse Gas Emissions and the Cap-and-Trade regulation pertaining to GHG emissions sources, like industrial emissions exceeding 25,000 metric tons of carbon dioxide equivalent (MTCO_{2e}) annually. In response to this comment, the following is added on page 4.8-2:

In 2011, CARB adopted the Cap-and-Trade regulation and created the Cap-and-Trade program. The program covers GHG emissions sources that emit more than 25,000 metric tons of carbon dioxide equivalent per year (MTCO_{2e}/year) such as refineries, power plants, industrial facilities, and transportation fuels. The Cap-and-Trade program includes an enforceable statewide emissions cap that declines approximately 3 percent annually. CARB distributes allowances, which are tradable permits, equal to the emissions allowed under the cap. Sources that reduce emissions more than their limits can auction carbon allowances to other covered entities through the Cap-and-Trade market. Sources subject to the cap are required to surrender allowances and offsets equal to their emissions at the end of each compliance period (CARB 2012). Stationary sources that emit more than 10,000 MTCO_{2e}/year are required to report their GHG emissions annually to CARB pursuant to the Mandatory Reporting Regulation but are not required to reduce GHG emissions until the 25,000 MTCO_{2e}/year cap is exceeded. The Cap-and-Trade program was initially slated to sunset in 2020, but the passage of SB 398 in 2017 extended the program through 2030.

- O6-25 The comment suggests that the GHG emissions associated with landfills in the county are underestimated. The comment provides a citation to a CARB-supported methane emissions study that sought to measure landfill-generated methane from the Toland Road Landfill in the county. Refer to Master Response MR-1.A, which describes an updated calculation for the Toland Road Landfill based upon the availability of new data sources.
- O6-26 The comment suggests including the CO₂ generated from composting facilities operating in the County in the GHG inventory. It also suggests that these facilities are designed to decrease methane emissions but create CO₂ emissions.
- The ICLEI U.S. Community GHG Protocol used by the County and many other jurisdictions to produce GHG inventories does not contain standardized methodologies to estimate fugitive emissions from composting due to the lack of data and guidance. Appendix E of the of the protocol's latest version 1.2 from July 2019 states that the EPA is exploring methods to calculate emissions from composting and the ICLEI guidance will be updated in future editions to reflect the state of science for direct measurements. For lack of a generally accepted method for quantifying GHG emission from this source, it was not included as part of the draft EIR analysis.
- O6-27 The comment asserts that the stationary source emissions estimates of the baseline GHG inventory are incorrect because they do not match the emissions reported in CARB's Mandatory Reporting Rule (MRR), as cited in draft EIR Appendix D. The reference to MRR in draft EIR Appendix D is incorrect. The stationary source emissions were not based on MRR reports. Instead, they were calculated using the County's portion of statewide GHG emissions from oil and gas production scaled by the County's relative production of oil and gas in the state. In response to this comment, reference to the MRR has been removed from draft EIR Appendix D, as provided in Revised Appendix D, Attachment 2 to the final EIR. In addition, these revisions recalculate the stationary source emissions based on county-specific emissions data available from CARB. These changes do not substantially affect the analysis or change the impact conclusions in the draft EIR. Refer to Master Response MR-1.A for additional discussion of the stationary source emissions calculations included in the draft EIR and updated calculations for stationary source emissions included in the final EIR.
- O6-28 The comment states that the draft EIR does not explain why state-level data was used to estimate the county's emissions from oil and gas production in light of facility-level data from MRR for three facilities in the county, and that reliance on State-level data inaccurately reflects the oil and gas emissions in the county. The comment states that the emissions estimated for the oil and gas sector are considerably overestimated.
- MRR data was not considered for the analysis after reviewing the limitations associated with the MRR data. The MRR data only includes facilities that meet the reporting criteria when they emit more than 10,000 MTCO_{2e} per year and do not include fugitive emissions from oil and gas production. Fugitive emissions are included in CARB's GHG inventory for the oil and gas sector (CARB 2020), and,

to be consistent with the state's GHG inventory, are also included in the County's GHG inventory in order to show consistency with the State's GHG reduction targets.

Also, in contrast to the two facilities identified by the comment, in 2015, the MRR included four petroleum and natural gas extraction facilities in the county:

- ▶ Aera Energy Ventura Basin (opt-in 2014);
- ▶ Aera Energy Ventura Gas Plant;
- ▶ California Resources Production Corporation - SCVGP Gas Plant; and
- ▶ California Resources Production Corporation - Ventura Basin 755.

According to the MRR, these facilities emitted a total of 126,663 MTCO_{2e} in 2015, excluding fugitive emissions (CARB 2019b).

In the final EIR, the county's emissions from oil and gas production have been revised to account for county-specific emissions data from CARB. These changes do not substantially affect the analysis or change the impact conclusions in the draft EIR. Refer to Master Response MR-1.A for additional discussion of the stationary source emissions calculations included in the draft EIR and updated calculations for stationary source emissions included in the final EIR.

O6-29 Comment requests an explanation for the differences in the rate of forecasted decay in waste-in-place emissions between the Toland Road Landfill and the Simi Valley Landfill.

The comment identifies an error in the calculation of the solid waste GHG emissions forecasts for the Simi Valley Landfill and the Toland Road Landfill. These forecasts were incorrectly quantified in the draft EIR. These forecasts have been revised and both forecasts are now based on the decay rates modeled in CARB's Landfill Emissions Tool. These revisions clarify the data used in the draft EIR analysis, but do not substantially change the analysis or conclusions of the draft EIR. Refer to Master Response MR-1.A and the revised Appendix D (Attachment 2 to this final EIR) for further explanation of the methodology used to quantify solid waste emissions.

O6-30 The comment expresses concern over the methods used to forecast emissions from oil and gas production. The comment identifies a discrepancy between the draft EIR's forecast of emissions from oil and gas production and the historical trends in oil and gas production in the county. (Note that references to "gas" in the GHG forecast data corresponds to "associated gas" production. No non-associated gas was reported to be produced in the county between 2008 and 2018.)

In reviewing these calculations, an error was identified associated with the scaling factors used to forecast emissions. Previously in the draft EIR, there was a calculation error in the scaling factor used to forecast emissions through 2040 that was designed to scale emissions by average annual trends in oil and gas production in the county since 2008. The forecasts have also been revised to

incorporate historical oil and gas production in the county starting from 1980, instead of 2008, to provide a more accurate assessment of the overall trends in oil and gas production in the county. Additionally, the calculations have been corrected such that oil-related emissions are scaled by oil production and gas-related emissions are scaled by gas production. A discussion has also been added to further explain the methodology used to forecast oil and gas emissions. A revised version of draft EIR Appendix D that reflects these modifications is provided in Attachment 2 to this final EIR.

Since 1980, oil and gas production in the county has decreased by approximately 60 percent, following an inverted growth curve pattern characteristic of oil production decline. Based on this, the updates to the GHG calculations more accurately reflect the anticipated trends in emissions from the oil and gas industry.

O6-31 The comment notes that the draft EIR analysis under Impact 4.12-3 in Section 4.12, "Minerals and Petroleum Resources," concludes that the 2040 General Plan could hamper or preclude access to oil and gas resources and suggests that Section 4.8, "Greenhouse Gas Emissions," in the draft EIR, should be modified to include an explanation of the modeling assumptions in Appendix D to the draft EIR that indicate that oil production would increase in the county. The final EIR revises the methodology to forecast oil production in the county and, using historical oil production data in county starting from 1980 from the California Department of Conservation, anticipates that oil production in the county will decline through 2040, instead of increase. See response to comment O6-30, Master Response MR-1, and the Revised Appendix D in Attachment 2 to the final EIR for further discussion of the revised scaling factors used to forecast GHG emissions from stationary sources.

O6-32 The comment states that the overestimations of the stationary source emissions made in Table 4.8-2 are compounded in the projections. The comment also states that forecasted stationary source emissions should be decreasing relative to 2015 levels, in line with historical trends in oil production in the county. Refer to the response to comment O6-28, which explains the inclusion of fugitive emissions from oil and gas production. Refer Master Response MR-1.A which explains the revisions to the 2015 inventory and forecasted stationary source emissions included in the final EIR. These revisions were made in response to this and other similar comments expressing concern over using State-level data and inappropriate oil production forecasts. Refer to response to comment O6-30 explaining why forecast GHG emissions from stationary sources have been revised to assume a declining trend in future oil and gas production in the county.

Note that revision of the 2015 emissions from stationary sources in the final EIR are higher than those estimated in the draft EIR; however, forecasted emissions are lower and show a declining trend compared to the estimates in the draft EIR. Refer to Master Response MR-1.A and the Revised Appendix D in Attachment 2 to the final EIR for further discussion of the revised methods used to estimate the 2015 and forecasted GHG emissions from stationary sources.

O6-33 The comment suggests that the draft EIR be revised to describe climate change benefits associated with continued and expanded use of crude oil. The comment

asserts that the oil produced in the county has a lower carbon intensity than that of oil produced in other parts of the State. The comment references the Low Carbon Fuel Standard as the driver of the reduction of carbon intensity of oil. This is a State-regulated program that the County does not have authority to revise and implementation of this regulation is not carried out through the CEQA process. The impact of the Low Carbon Fuel Standard regulation is not quantified in the draft EIR analysis as it represents upstream emissions associated with fuel production. No revision to the draft EIR is required in response to this comment.

Refer to response to comment O2-6 and Master Response MR-4.K for a discussion of the potential for GHG emissions from extraction of crude oil outside of the county compared to extraction occurring within the county and whether additional discussion of this potential is appropriate for inclusion in this draft EIR.

O6-34 The comment addresses Policies COS-7.4 and COS-7.7 of the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Policy COS-7.7 is part of the draft 2040 General Plan and was not identified as a mitigation measure for potentially significant GHG emissions impacts identified in the draft EIR. No further response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

O6-35 The comment addresses implementation of Implementation Program M in the Conservation and Open Space Element of the 2040 General Plan, which would require the County to evaluate the feasibility of establishing a local tax on oil and gas operations located in the unincorporated county and asserts that doing so would “usurp” authority designated to a State agency. This comment is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

O6-36 The comment states that several policies and programs analyzed in Section 4.8, “Greenhouse Gas Emissions,” in the draft EIR are unrelated to GHG emissions or climate change. The comment cites the following policies and programs: CTM-2.1, CTM-2.10, CTM-2.19, PFS-4.4, COS-2.10, WR-4.1, and Implementation Programs J and M.

The following briefly explains how the identified programs would reduce GHG emissions.

- ▶ Policies CTM-2.1, CTM-2.10, and CTM-2.19: These policies reduce GHG emissions by promoting the use of alternative low-emission modes of transportation, such as bicycling and walking. Physical separation of low-speed and high-speed modes of transportation also promote safety and desirability of those modes over faster automotive transportation.
- ▶ Policies PFS-4.4, COS-2.10, and WR-4.1: The preservation of groundwater resources allows for greater availability of local water resources, which discourages the use of water from more GHG-intensive sources. According to the California Energy Commission, groundwater from wells less than 250 feet

deep is less energy intensive than water sourced from other major sources, such as the State Water Project (California Energy Commission 2006:25). Emissions of GHGs are proportional to electricity use, as long as electricity sources are sourced from non-renewable sources.

- ▶ Implementation Programs J and M: These programs would reduce GHG emissions by promoting the use of alternative fuels (e.g., electricity, biodiesel, biogas) that emit less GHG emissions per unit of energy than their conventional counterparts (e.g., diesel, gasoline, natural gas).

O6-37

The comment asserts that 2040 General Plan Policy COS-7.4 (Electrically-Powered Equipment for Oil and Gas Exploration and Production) is not feasible for the County to implement because the County does not have control over the renewable sources of imported electricity. Policy COS-7.4 states that “the County shall require discretionary development for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible, to reduce air pollution and GHG emissions from internal combustion engines and equipment.”

The draft EIR evaluates the physical environmental effects of 2040 General Plan implementation, including its policies and programs, but is not required to analyze the “defects of, or infeasibility of” this policy or other components of the project being analyzed.

Table 4.7 in the draft EIR identifies a list of policies, including Policy COS-7.4, that are not supported by any implementation programs. The conclusion under Impact 4.8-1 (page 4.8-44) explains that such policies do not contain enough specificity to allow for the quantification of any potential GHG reductions. Although this discussion did not specifically address Policy COS-7.4, it did not discount the feasibility of Policy COS-7.4.

The implementation of Policy COS-7.4 could be supported by several means. Under Policy COS-8.4, the Clean Power Alliance targets enrollment of 95 percent of all residential and commercial customers into its Green Choice Program by 2030. This program offers 100 percent renewable electricity. Additionally, Senate Bill 100 establishes a target of 100 percent renewable electricity in the state by 2045. Southern California Edison also offers two renewable energy programs with 100 percent renewable options that businesses can join: the Green Rate Program and the Community Renewables Program. Given these policies and available renewable electricity options, it is feasible for electricity consumers to choose renewably sourced electricity as part of the implementation of Policy COS-7.4. Therefore, this policy is anticipated to reduce GHG emissions, although such reductions cannot be quantified at this time.

O6-38

The comment recommends an edit to the text of the draft EIR. In response, the following edit is made to the discussion on page 4.8-50 in Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR:

However, for these reasons and those described in Impact 4.8-1, the County cannot meaningfully quantify the effect of all its 2040 General Plan

policies and programs on future GHG emissions, and ~~there~~ therefore, it cannot conclude, at this program level of analysis, that future GHG emissions in the county under the 2040 General Plan would be sufficiently reduced to meet the State's 2030 or post-2030 targets.

This edit provides clarification, but does not substantially change the analysis or conclusions of the draft EIR.

O6-39 The comment recommends an edit to the text of the draft EIR. In response, the following edit is made to the discussion on page 4.8-52 in Section 4.8, "Greenhouse Gas Emissions," of the draft EIR:

However, due to the County's minimal growth, most of the forecast GHG emissions in 2030 and beyond are caused or influenced by ~~from~~ energy use in existing buildings, vehicle use and travel behavior on existing transportation systems, landfilled waste, and agricultural uses where the County has limited authority to enforce stringent actions resulting in GHG reductions beyond what have been already been included in the 2040 General Plan and the mitigation measures identified in Impact 4.8-2.

O6-40 The comment states that the draft EIR does not provide a definition for "alternative technology" for the management of hazardous waste and therefore fails to disclose an evaluation of the potential impacts due to onsite treatment of hazardous waste. Through Policy HAZ-5.5, the County would "require that hazardous wastes and hazardous materials be managed in such a way that waste reduction through alternative technology is the first priority." This speaks to looking for technological solutions, which would vary based on industry, that result in reduced use and generation of hazardous materials and wastes. The policy does not promote alternative technology to manage said waste; but is intended to reduce the quantity of potentially hazardous materials used and wastes generated. The full policy, as provided on page 4.9-7 of the draft EIR is provided below for reference.

- ▶ **Policy HAZ-5.5: Hazardous Waste Reduction at the Source.** The County shall, as part of the discretionary review process, require that hazardous wastes and hazardous materials be managed in such a way that waste reduction through alternative technology is the first priority, followed by recycling and on-site treatment, with disposal as the last resort. (RDR) [*Source: Existing GPP Policy 2.15.1.1, modified*]

Once produced, hazardous wastes are "treated" when the physical, chemical, or biological character or composition of the hazardous waste is changed in a way that removes or reduces its harmful properties or characteristics. In Ventura County, all facilities that generate hazardous waste, except those in the City of Oxnard, are required to obtain a hazardous waste producer's permit from Ventura County Environmental Health Department. The Environmental Health Department conducts routine inspections of facilities that generate hazardous waste to verify compliance with State hazardous waste laws and regulations contained in the California Health and Safety Code. Businesses that treat hazardous waste onsite are required to notify the Environmental Health Department. There are State laws and regulations

pertaining to onsite hazardous waste treatment that are administered through an existing permitting process established by the State of California. For further discussion of these regulations, refer to Section 11.5, "Hazardous Materials," of the Background Report (pages 11-65 through 11-67).

The draft EIR provides a program-level analysis of the types of development that could occur in the unincorporated county based on implementation of the proposed land use plan and policies. Physical changes that could result from subsequent development pursuant to land use designations established in the 2040 General Plan, implementation of policies and implementation programs identified in the 2040 General Plan, and offsite or indirect development that is necessitated by the 2040 General Plan, are encompassed in this analysis (see "Approach to Environmental Analysis," page 4-3 of the draft EIR). The reasonably foreseeable effects of Policy HAZ-5.5 are considered in Impacts 4.9-1 through 4.9-4. No revision to the draft EIR is required in response to this comment.

O6-41

The comment references the justification of not providing additional mitigation to address the significant and unavoidable impact identified under Impact 4.9-6 (Expose People to Risk of Wildfire by Locating Development in a High Fire Hazard Area/Fire Hazard Severity Zone or Substantially Impairing an Adopted Emergency Response Plan or Evacuation Plan or Exacerbate Wildfire Risk). Here, the discussion explains that there is an existing regulation in place (VCFPD Ordinance 31, the Ventura County Fire Protection District Fire Hazard Reduction Program) which "requires mandatory 100-feet of brush clearance around structures located in or adjacent to Hazardous Fire Areas" (page 4.9-24 of the draft EIR), and concludes that there could be a significant increase in wildfire hazards despite implementation of this and other regulations, as well as applicable policies and implementation programs proposed in the 2040 General Plan. VCFPD Ordinance 31, Chapter 2 Definitions, defines "Structure" as, "That which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner." (Ventura County Fire Code, Section 202).

The draft EIR provides a program-level analysis of the types of development that could occur in the unincorporated county, based on implementation of the proposed land use plan and policies. Physical changes that could result from subsequent development pursuant to land use designations established in the 2040 General Plan, implementation of policies and implementation programs identified in the 2040 General Plan, and offsite or indirect development that is necessitated by the 2040 General Plan, are encompassed in this analysis. For the purpose of this environmental analysis, the types of actions that could result in physical changes to the environment under the 2040 General Plan are referred to collectively as "future development" (see "Approach to Environmental Analysis," page 4-3 of the draft EIR).

In the analysis of the wildfire impact, the draft EIR (page 4.9-21) explains that:

Public Resources Code Section 4291 and Government Code Section 51182 require property owners in mountainous areas, forest-covered lands, or any land that is covered with flammable material to create, at

minimum, a 100-foot defensible space (or to the property line) around their homes and other structures. Pursuant to VCFPD Ordinance 31, the Ventura County Fire Protection District Fire Hazard Reduction Program requires mandatory 100-feet of brush clearance around structures located in or adjacent to Hazardous Fire Areas.

As explained on page 4.9-2 of the draft EIR, the Ventura County Fire Protection District Ordinance No. 31 was adopted in October of 2019, which updated the versions of the California Fire Code and International Fire Code adopted by reference. The hazard reduction program is further described on page 11-52 of the Background Report. More information about the applicability of, and requirements to, clear brush or vegetative growth from structures, can be found in VCFPD Ordinance 31, Section W105.

The 2040 General Plan would not change the requirement for brush clearing in Hazardous Fire Areas. However, growth that occurs under the plan could increase development in Hazardous Fire Areas that must comply with VCFPD Ordinance 31. The land use diagram establishes the types of development envisioned for areas of the county, while the policies and implementation programs further guide, and provide parameters around, appropriate development. The draft EIR appropriately acknowledges the potential for future development in or adjacent to high and very high Fire Hazard Severity Zones or Hazardous Fire Areas. Future development is considered a potential for land disturbance in the analysis of erosion potential, irrespective of buffer requirements for wildfire hazard reduction.

O6-42 The draft EIR lists proposed policies as they appear in the draft 2040 General Plan. The EIR does not propose revisions to the draft policies unless necessary to mitigate a potentially significant effect on the environment.

Stormwater drainage facilities would be installed as a component of new development accommodated under the 2040 General Plan, and the County would require that the facilities comply with Policy PFS-6.5: Stormwater Drainage Facilities which states that “The County shall require that stormwater drainage facilities are properly designed, sited, constructed, and maintained to efficiently capture and convey runoff for flood protection and groundwater recharge.” The actual land disturbance required to install and maintain these facilities would be within the greater area of potential land disturbance assumed in the analysis.

As explained above, the draft EIR provides a program-level analysis of the types of development that could occur in the unincorporated county based on implementation of the proposed land use plan and policies. Physical changes that could result from subsequent development pursuant to land use designations established in the 2040 General Plan, implementation of policies and implementation programs identified in the 2040 General Plan, and offsite or indirect development that is necessitated by the 2040 General Plan, are encompassed in this analysis. For the purpose of this environmental analysis, the types of actions that could result in physical changes to the environment under the 2040 General Plan are referred to collectively as “future development” (see “Approach to Environmental Analysis,” page 4-3 of the draft EIR).

- O6-43 The comment addresses implementation of a policy of the 2040 General Plan and is not related to the adequacy of the draft EIR. As described in response to comment O6-42, the draft EIR lists proposed policies as they appear in the draft 2040 General Plan. The EIR does not propose revisions to the language and level of detail provided in the draft policies unless necessary to mitigate an effect on the environment. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adoption of the final 2040 General Plan.
- O6-44 The comment provides suggested edits to a policy proposed in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General Plan.
- O6-45 The comment expresses concern that oil and gas have not been considered as mineral resources. The County acknowledges that petroleum is, by definition, a non-renewable mineral resource. The County chose to make a distinction between oil and gas resources and other mineral resources to highlight the discussion for the public.
- The draft EIR evaluates petroleum resources and aggregate resources separately in Section 4.12, “Minerals and Petroleum Resources,” because there are conditions that are unique to each of these mineral resources. The approach in the draft EIR is also consistent with the County’s ISAG. All mineral resources are evaluated at the same level of detail, according to thresholds that combine the ISAG with the sample questions in Appendix G of the State CEQA Guidelines. As explained on page 4.12-6 of the draft EIR, “Appendix G questions XII(a) and XII(b)...are evaluated as separate thresholds for mineral and petroleum resources.” Therefore, all mineral resources have been evaluated pursuant to the appropriate CEQA thresholds.
- O6-46 The comment asserts that the draft EIR vaguely describes the imposition of buffers for agricultural without any measurable values/distances for these buffers. Section 4.11, “Land Use and Planning,” in the draft EIR does not impose buffers on any land use. The draft EIR describes the buffers developed by the County in the 2040 General Plan and evaluates whether there is potential that these buffers could: result in physical development that is incompatible with existing land uses, architectural form or style, site design/layout, or density/parcel sizes within any communities; result in the physical division of an established community; or cause a significant environmental impact due to a conflict with a regional plan, policy, or program adopted for the purpose of avoiding or mitigating an environmental effect. No further response to this comment is required.
- O6-47 Policy HAZ-2.3, as proposed in the 2040 General Plan and provided in the list of policies on page 4.11-16 of the draft EIR, indicates that the County “shall prohibit incompatible land uses and limit discretionary development within floodplains.” The 2040 General Plan (page 12-12) defines the term “incompatible” as:

The characteristic of different uses or activities that are not permitted to be located near each other because it is likely to create conflict. Some

elements affecting compatibility include intensity of occupancy as measured by dwelling units per acre; pedestrian or vehicular traffic generated; volume of goods handled; and environmental effects including noise, vibration, glare, air pollution, or radiation.

The analysis of incompatible physical development in Impact 4.11-1 explains that “HAZ-2.3 would discourage development of incompatible land uses in areas with designated safety hazards” (page 4.11-21 of the draft EIR). Compatibility would be determined at the project level; however, it is reasonable to assume that the community would benefit if certain critical facilities (i.e., hospitals and fire stations) were located outside of identified floodplains. Reducing physical development within the floodplain would result in positive physical consequences given that such development can increase the severity of flooding and put residents at risk. To the extent that potential development is displaced or moved from an area prone to flooding to an area that is more appropriate, this development would occur consistent with the land use plan and is within the “buildout” assumptions for the 2040 General Plan used in the draft EIR. Further discussion of flooding is provided in Section 4.10, “Hydrology and Water Quality,” of the draft EIR. Note also that this proposed policy is a modification of an existing goal and policy in the current General Plan and is thus not a substantively new policy or concept for the County.

- O6-48 The land use diagram proposed in the 2040 General Plan is provided in Chapter 3, “Project Description,” because it is a key component of the project that is evaluated throughout the draft EIR. Refer to Figures 3-2a and 3-2b. Refer to Master Response MR-2 for discussion of the adequacy of the draft EIR project description including the 2040 General Plan land use diagram.
- O6-49 Refer to Master Response MR-4 regarding the findings and conclusions related to setbacks, and the adequacy of the reports used to derive the findings and conclusions, flaring, pipelines, and horizontal drilling. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O6-50 Refer to Master Response MR-4 regarding the findings and conclusions related to State pre-emption of local laws, vested rights, intent of the policies related to phasing out of oil and gas, the feasibility of horizontal drilling, and impacts outside the general plan area including GHG impacts.
- O6-51 Refer to Master Response MR-4 regarding the findings and conclusions related to State pre-emption of local laws, vested rights, intent of the policies related to phasing out of oil and gas, the feasibility of horizontal drilling, and impacts outside the general plan area including GHG emissions impacts.
- O6-52 Refer to Master Response MR-4 regarding the findings and conclusions related to State pre-emption of local laws, vested rights, intent of the policies related to phasing out of oil and gas, the feasibility of horizontal drilling, and impacts outside the general plan area including GHG emissions impacts.

- O6-53 Refer to Master Response MR-4, Section MR-4.I, “Directional Drilling,” and Section MR-4.L, “Oil Reserves.” Although the commenter makes specific factual assertions regarding the approximate volume of oil reserves and claims that the subsurface conditions could impair directional drilling, the comment does not explain or cite substantial evidence supporting its asserted facts. As a result, the comment’s accuracy is not known and cannot be independently assessed. Regardless, the comment’s factual assertions, even if accurate, do not affect the analyses or conclusions of the draft EIR and, therefore, no revisions have been made in response to the comment. The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O6-54 Refer to Master Response MR-4, Section MR-4.A, “County’s Authority to Regulate Oil and Gas Development,” and Section MR-4.B, “Antiquated Permits and Takings,” regarding the findings and conclusions related to State pre-emption of local laws. The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the Draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O6-55 The analysis in the draft EIR (page 4.13-13) acknowledges that discretionary development in the unincorporated county:
- would be required to comply with the following construction equipment noise control measures identified in the Construction Noise Threshold Criteria and Control Plan, which would substantially lessen construction noise levels. In addition, the permitting agency/department would review the construction noise reduction measures and confirm compliance with the County’s noise threshold criteria.
- One of those existing noise threshold criteria is “All back-up alarms should be disarmed at 8:00 p.m. and not reactivated until 7:00 a.m. on weekdays and 9:00 a.m. on weekends and local holidays. Signal persons and strobe lights must be used during periods when the back-up alarms are disarmed” (draft EIR page 4.13-14). This is not a requirement of the 2040 General Plan or mitigation in the draft EIR, and, therefore, potential safety effects of these existing procedures need not be evaluated in this EIR.
- O6-56 Refer to response to comment O2-18 regarding the analysis of stationary noise sources.

Farm and Investment Operations of

John W. Borchard Trusts
 John W. Borchard, Jr.
 J. David Borchard
 Patricia Borchard Trusts
 Cecilia Borchard Trusts
 Ernest Borchard Ranch Co., LLC
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**Letter
 07**

February 27, 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

Ventura County Board of Supervisors
 Attn: RMA Planning Division
 General Plan Update
 800 Victoria Avenue L#1740
 Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

07-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

07-2

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners was that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economically feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

07-3

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

O7-4

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires that all farm equipment be converted to electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

O7-5

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

O7-6

After devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

O7-7

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

O7-8

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

O7-9

Furthermore, for the good of the County, its employees, and its citizens should not the implications to land values, therefore assessed values, therefore property tax collections be considered an unmitigated impact? I would think that Ventura County is a wonderful example of government for the people, all of its people, taxpayers and beneficiaries of government services alike. I would also think that it is irresponsible for the Board of Supervisors to ignore this impact. I have not seen an analysis of economic impacts in the body of the proposed 2040 General Plan DEIR. I think this is a serious omission.

O7-10

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

O7-10

Sincerely,

John W. Borchard, Jr.
 Chief Financial Officer
 Borchard Companies, Inc.

| | |
|----------------------|-------------------------------------------------------------------------------------------------------|
| Letter 07 | Borchard Companies, Inc John W. Borchard, Jr., Chief Financial Officer February 27, 2020 |
|----------------------|-------------------------------------------------------------------------------------------------------|

- 07-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.
- 07-2 The history of the Borchard family is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- 07-3 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- 07-4 The comment asserts that the agricultural industry is reliant on “reasonable water costs and supply,” which it asserts are not evaluated in the draft EIR. As explained in the “Methodology” subsection of Section 4.2, “Agriculture and Forestry Resources,” a reduction in available water resources for irrigation is considered an indirect impact on agricultural resources (see page 4.2-3 of the draft EIR). Indirect impacts are evaluated under Impact 4.2-1 (Loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance). Consistent with the Initial Study Assessment Guidelines, the subsequent discussion focuses on indirect loss of agricultural soils and land use conflicts. The analysis concludes that the impact to farmland would be significant and unavoidable because “any direct or indirect loss of Important Farmlands would be considered a permanent loss of a valuable resource,” and there “are no actions or policies that the County could feasibly mandate to fully replace the loss of Important Farmland” (see page 4.2-17 of the draft EIR).

Cross reference is provided within this section to Section 4.10, “Hydrology and Water Quality,” of the draft EIR for additional discussion of water resources. For a discussion of groundwater supply, refer to Impact 4.10-1 (Directly or Indirectly Decrease the Net Quantity of Groundwater in a Groundwater Basin That Is Overdrafted or Create an Overdrafted Groundwater Basin). Although there could be an increase in water demand with development that occurs over the more than 20-year planning period for the 2040 General Plan, this impact is found to be less than significant due to compliance with groundwater sustainability plans which require an assessment of the condition of groundwater basins, managing groundwater demand, and undertaking groundwater recharge projects to achieve long-term sustainability; compliance with County Ordinance 4468, which prohibits new wells for the extraction of groundwater in many groundwater basins; and compliance with 2040 General Plan Policy COS-2.10, which requires the County to enhance groundwater management to prevent excessive pumping and reduce saltwater intrusion. For a discussion of surface water, refer to Impact 4.10-7 (Increase Surface Water Consumptive Use (Demand) Including Diversion or Dewatering Downstream Reaches, Resulting in an Adverse Impact on One or

More of the Beneficial Uses Listed in the Applicable Basin Plan). This impact is also considered less than significant because Urban Water Management Plans (UWMPs), which identify and evaluate the reliability and quantity of available water supply sources, would ensure that water supplies are properly managed and, thus, would not result in adverse effects to beneficial uses listed in the applicable Basin Plans, including agriculture. Impact 4.17-4 (Result in Development That Would Adversely Affect Water Supply Quantities during Normal, Single-Dry, and Multiple-Dry Years) (starting at page 4.17-14) evaluates whether sufficient water supplies would be available to serve future development under 2040 General Plan implementation during normal, single-dry, and multiple-dry year scenarios and concludes that this impact would be significant and unavoidable with implementation of Mitigation Measure UTL-1.

Additional discussion of potential indirect effects related to water supply and cost would not change the analysis or conclusions of the draft EIR. No changes to the draft EIR have been made in response to this comment.

O7-5

The comment does not specifically name which policies it is referring to; therefore, the County has interpreted which policies the comment might be referencing based on the content of the comment in a good faith effort to respond to the comment. To clarify, though the comment refers to these policies as “mitigation measures,” they are policies in the proposed General Plan.

Regarding setbacks, Policy LU-6.1 requires that non-agricultural land uses adjacent to agricultural uses to incorporate adequate buffers to limit conflicts with adjoining agricultural operations. While the commenter asserts this is a policy that would hinder agricultural use, the buffer policy is meant to protect agricultural uses from future development. The development subject to County approval would be required to implement buffers, within their land area, and this requirement would not require buffers to be created on existing agricultural operations. As a result, the County does not believe the buffers would hinder agricultural operations as claimed by the commenter.

Regarding fumigants and pesticides, Policy AG-3.2 states that the County shall encourage and support the use of integrated pest management practices to reduce pesticide use and human health risks. Policy AG-3.2 is not associated with any implementation program in the General Plan. Because the policy only requires that the County “encourage” and “support” certain practices, it would not require changes in use. Therefore, the policy would not affect the viability of agriculture in the County.

The County cannot determine which policy the commenter believes affects the use of fertilizer. There are no 2040 General Plan policies that dictate type or use of fertilizer.

To clarify, Policies AG-5.2 and AG-5.3 do not require farm equipment be converted to electric. Refer to response to comment A13-10 regarding these two policies and their potential impacts on agriculture.

O7-6 Refer to Master Response MR-6 for a discussion of the accuracy, timeliness, and level of detail in the Background Report. The comment refers to unspecified “detailed studies that must be added” to identify impacts and mitigation measures for “the agricultural industry” but it is not clear from the comment what the scope of such studies should be or their relation to the draft EIR analysis of agricultural resources impacts in Section 4.2. As a result, no further response can be provided.

O7-7 It is unclear what “limiting mitigation measures for fire prevention” are the subject of this comment. The draft EIR does not include any mitigation measures that are intended to or that would limit wildfire prevention activities anywhere. For a discussion of wildfire hazards, refer to Section 4.8, “Hazards, Hazardous Materials, and Wildfire,” in the draft EIR.

Further, the commenter states that the draft EIR fails to study how the “wildlife corridor” eliminates agricultural operations and fire prevention in corridor areas. Although it is unclear precisely what the “wildlife corridor” refers to, it is assumed that this is a reference to the draft 2040 General Plan Conservation and Open Space Element Policy COS-1.3, Wildlife Corridor Crossing Structures, and Policy COS-1.5, Development within Habitat Connectivity and Wildlife Corridors, analyzed in the draft EIR Section 4.4, “Biological Resources.” The comment does not explain the factual basis for its inaccurate assertion that the 2040 General Plan would “eliminate” agricultural operations or fire prevention in designated wildlife corridor areas. Consequently, a detailed response to the inaccurate assertion is not possible. The draft EIR concludes that Policies COS-1.3 and COS-1.5 would reduce potential direct and indirect impacts on special-status species and habitats, require development to accommodate wildlife passage, and require project-level environmental review and mitigation for significant impacts (page 4.4-22). The Ventura County Fire Protection District Ordinance No. 31 (Ventura County Fire Code) sets forth the requirements for fire prevention, vegetation and brush clearance on properties in the unincorporated area, inclusive of parcels within the Habitat Connectivity and Wildlife Corridors Overlay Zone and Critical Wildlife Passage Areas Overlay Zone (Non-Coastal Zoning Ordinance Sections 8104-7.7 and 8104-7.8).

Development subject to the 2040 General Plan would be required to comply with the Ventura County Fire Code fire prevention requirements within the Habitat Connectivity and Wildlife Corridors and Critical Wildlife Passage Areas Overlay Zones. For a discussion of wildfire hazards, refer to Section 4.8, “Hazards, Hazardous Materials, and Wildfire” in the draft EIR. The draft EIR does not analyze the impact of 2040 General Plan policies on the “elimination” of agricultural operations or fire prevention because, again, no proposed provision of the 2040 General Plan would do so. Note that CEQA requires that the EIR analyze the impact of these policies on the environment, including agricultural resources such as designated agricultural soils. For discussion of impacts to agricultural resources, refer to Section 4.2, “Agriculture and Forestry Resources,” in the draft EIR.

O7-8 The commenter has not specified which general plan policies they are concerned about that expand permanent bike path and pedestrian walking trails. There are several policies that encourage study and development of bicycle and pedestrian routes (e.g., Policy CTM-2.12, Policy CTM-2.13, Policy CTM-2.17, Policy CTM-2.26, Policy CTM-2.27, and Policy CTM-3.5).

Policy LU-6.1 requires that non-agricultural land uses adjacent to agricultural uses to incorporate adequate buffers to limit conflicts with adjoining agricultural operations. To clarify, though the commenter refers to this policy as a “mitigation measure,” it is a policy in the proposed 2040 General Plan. While the commenter asserts this is a policy that would hinder agricultural use, the buffer policy is meant to protect agricultural uses from future development. The development would be required to implement buffers, and this requirement would not require buffers to be created on existing agricultural operations. As a result, the County does not agree that the buffers would hinder agricultural operations as claimed by the commenter. Additionally, see Policy CTM-3.5, which states that “[t]he County shall plan for bicycle network connectivity in rural, agricultural, and open space areas in a way that supports and complements business and agricultural activities in those areas.” This and other policies would be implemented through Implementation Program L, Master Bicycle Network Plan. As a result, the County does not believe the buffers would create land that is unusable for agricultural operations because the policy requires supporting and complementing agricultural activities.

Impact 4.2-2 addresses conflicts of non-agricultural land use with agricultural land use, and focuses on “classified farmland,” which includes lands designated as grazing land, Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance.

While the commenter expresses concern over impacts from trail users on agriculture, such as theft, vandalism, litter, and pet waste, these impacts would not be significant because EIRs are not required to speculate about a project’s environmental impacts (State CEQA Guidelines Section 15145). The comment does not present evidence that, to the extent the 2040 General Plan results in trails adjacent to agricultural lands, the use of such trails would result in degrees of theft, vandalism, litter, and pet waste, such that agricultural uses or operations would cease to exist, although such activities may occur to some degree (e.g., stolen equipment, illegal picking, litter tossed into fields). Recreational trails and pathways are routinely designed to deter trespassing onto private property (e.g., with signs, fencing) and routinely maintained by the owner or operator (e.g., to repair vandalized facilities). Moreover, the plan area includes law enforcement services (e.g., to address theft, vandalism). As a result, a discussion of the impacts of theft, vandalism, litter, and pet waste on agriculture is appropriately excluded from Impact 4.2-2.

O7-9 The comment asserts that the draft EIR does not address economic impacts of various General Plan policies. However, EIRs are not required to treat a project’s economic or social effects as significant effects on the environment (CEQA Guidelines Section 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects

and physical environmental changes. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR. The commenter refers to letters submitted by Aera Energy and “other operators.” Refer to responses to Letters O5 and O6 submitted by Aera Energy LLC. Also refer to response to comment O2-10.

O7-10

The draft EIR adequately analyzes the potential impacts of implementing the proposed 2040 General Plan policies and provides mitigation measures (where required) to reduce significant impacts.

Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.



BUILDING INDUSTRY LEGAL DEFENSE FOUNDATION

Letter
08

February 27, 2020

Chairwoman Kelly Long
Ventura County Board of Supervisors
County Government Hall of Administration
800 S. Victoria Avenue
Ventura, CA 93009

Re: Ventura County General Plan Update

Dear Chairwoman Long,

The Building Industry Legal Defense Foundation (BILD) is a non-profit mutual benefit corporation and a wholly-controlled affiliate of the Building Industry Association of Southern California. BILD provides legal support and litigation services to increase the production of housing to meet the state’s urgent need for more housing, and equally urgent need for housing that is actually affordable to hard working Californians.

08-1

To that end, we want to bring to your attention the following comments and concerns BILD has identified with the proposed Ventura County General Plan Update:

I. VENTURA COUNTY GENERAL PLAN UPDATE COMMENTS

A. Biology

1. Policy COS-1.1 and Draft EIR Mitigation Measure BIO-1 require projects to avoid, minimize and then mitigate impacts to sensitive biological resources, in that order, “when feasible”. This policy fails to provide any meaningful standard for determining when it is “feasible” to avoid a resource, and thus gives County staff unbounded discretion to require modifications to projects. These decisions by County staff may conflict with decisions by state and federal natural resource regulators under existing programs that already impose similar standards. For instance, the “404(b)(1) Guidelines” for implementation of Clean Water Act Section 404, at 40 CFR Part 230, require avoidance and minimization of impacts to waters of the United States (including wetland waters) to the extent practicable, and require mitigation for unavoidable impacts. See 40 CFR 230.91(c). “Practicable” means “available and capable of being done after

08-2

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taking into consideration cost, existing technology, and logistics in light of overall project purposes.” 40 CFR 230.3(q). The Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) recently adopted by the State Water Resources Control Board include an analogous requirement and an identical definition of “practicable.”

O8-2
cont.

2. To avoid unnecessary duplication and potential conflict with decisions by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Boards (RWQCB) under these programs, and with decisions of other agencies under similar programs, Policy COS-1.1 should provide that the County will defer to permitting decisions by state and federal agencies exercising jurisdiction over sensitive resources, including the USACE, RWQCB, U.S. Fish and Wildlife Service (USFWS), and California Department of Fish and Wildlife (CDFW), to determine what avoidance, minimization and mitigation of impacts to sensitive biological resources are feasible.
3. Policy COS-1.6 requires discretionary development on hillsides and slopes greater than 20 percent to minimize grading and vegetation removal in order to avoid significant impacts to sensitive biological resources to the extent feasible. Again, the policy fails to provide any guidance regarding the extent to which avoidance will be considered “feasible.” At minimum, the County should adopt a definition of feasibility for purposes of biological resource protection that incorporates the concepts of technical and logistical feasibility, cost, and consistency with the project purposes defined by the project proponent, analogous to the concept of “practicability” used in the 404(b)(1) Guidelines and state Procedures. The definition should state that avoidance is not feasible if it would require engineering or construction techniques that are not commonly used in the industry; if it would impose unreasonable costs on the project; if it would deny the property owner a reasonable opportunity to develop the property consistent with otherwise applicable zoning and land use designations; or if it would create or substantially increase the severity of other significant environmental impacts.
4. Policy COS-1.7 requires the use of “natural or nature-based” flood control infrastructure, such as wetland restoration, “when feasible”. The policy should clarify that, for flood control infrastructure located within areas subject to the jurisdiction of the USACE, RWQCB or CDFW, the County will defer to decisions of those agencies permitting the installation or modification of flood control infrastructure. Otherwise, the County will apply the definition of “feasible” recommended in the comment on COS-1.6, above.
5. Policy COS-1.8 requires new or modified road crossings of aquatic features and riparian habitats to use bridge columns located outside riparian habitat, “when feasible.” Neither the General Plan nor the Draft

O8-3

EIR provides evidence that bridge columns located in riparian habitat necessarily have adverse effects on sensitive biological resources. In some cases, the lateral extent of riparian habitat may be many hundreds of feet wide, yet much of this area may lack substantial vegetation or other habitat values. Further, construction techniques exist that are capable of minimizing the temporary and permanent impacts of bridge column installation, such as vertical pile installation.

6. The policy should clarify that, for bridge columns located within areas subject to the jurisdiction of the USACE, RWQCB or CDFW, the County will defer to decisions of those agencies permitting the installation, maintenance, repair or replacement of bridge columns or road crossings. Further, the policy should state that the requirement to locate bridge columns outside riparian habitat when feasible applies only where the proposed columns would significantly adversely affect riparian habitat values. Finally, the policy should clarify that removal of existing bridge columns located within riparian habitat is not required when modifying an existing road crossing, and should incorporate the definition of feasibility recommended above.
7. Policy COS-1.9 requires the County to consult with “resource management agencies” including the California Native Plant Society (CNPS) and the National Audubon Society (NAS) during review of discretionary development applications. CNPS and NAS are not resource management agencies and have no legal authority to “consult” on County planning and land use decisions. These organizations should be allowed to comment on proposed development projects like other members of the public.
8. Policy COS-1.11 prohibits development within 100 feet of a wetland, with certain exceptions, and prohibits development that would have a significant impact on a wetland habitat unless mitigation measures are approved that would reduce the impact to a less than significant level. The policy should clarify that the prohibition does not apply to discharges of dredged or fill material to wetlands that are approved by the USACE and/or RWQCB, the agencies with legal jurisdiction over such activities; and that mitigation approved by those agencies for impacts to wetlands will be deemed to reduce permitted impacts to a less than significant level.
9. Draft EIR Mitigation Measure BIO-1 (Implementation Program COS-X) requires avoidance of sensitive habitats, wetlands, other waters, wildlife corridors, etc., “if feasible,” through “no-disturbance buffers” around such sites. The measure should clarify that feasibility of avoidance is determined as described in the recommendations above, including deferring to permitting decisions of the USACE, RWQCB, CDFW and USFWS, and adoption of a definition of feasibility. Further, the measure should more clearly define what is meant by “wildlife corridors,” focusing

O8-3
cont.

O8-4

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| <p>on areas demonstrated to be used for wildlife passage, and should clarify that the measure does not require avoidance of all areas designated as part of a wildlife movement corridor overlay zone under the County’s wildlife movement corridor ordinance, which covers tens of thousands of acres within the County.</p> | <p>O8-4 cont.</p> |
| <p>10. Implementation Program B of the General Plan Update (p. 6-18) requires an update to the County’s Initial Study Assessment Guidelines to require that wetland mitigation be “in kind’ (i.e., same type and acreage” and to provide that “[o]n-site restoration and/or replacement shall be preferred wherever possible.” In recognition of the fact that compensatory mitigation sites for certain types of wetland habitats may be extremely difficult or impossible to find, this language should provide flexibility to provide mitigation using wetland types that differ from the specific type impacted, provided the mitigation site provides wetland habitat values equal or greater to the impacted wetland. In addition, the preference for on-site mitigation stated in this text is inconsistent with Mitigation Measure BIO-1, which allows mitigation for wetland impacts “within or outside of the project site,” or through purchase of credits from a mitigation bank or an in lieu fee program, and conflicts with the USACE’s compensatory mitigation regulations, which establish a preference for mitigation banks and in lieu fee programs over permittee-responsible mitigation. The preference for on-site mitigation should be deleted.</p> | <p>O8-5</p> |
| <p>11. Implementation Program F of the General Plan Update (p. 6-20) calls for the County to consider increasing the standard wetland setback to 200 feet. This proposal is inconsistent with Policy COS-1.11 and should be deleted.</p> | <p>O8-6</p> |
| <p>B. Mineral Resources</p> | |
| <p>1. Policy COS -7.3 increases setbacks to sensitive uses from discretionary oil wells from 600 to 1500 feet for residences and 2,500 feet for schools. The Mineral Resources section discusses this policy’s impact on mineral resource production and concludes that impacts from the new policy are significant and unavoidable as it would hamper and preclude some oil field expansion and access to petroleum resources. This conclusion is after imposition of a mitigation measure that expands the types of uses required to have the minimum setbacks but reduces the school setback to 1,500 feet. Minimum setbacks should not be categorical but should allow for exemptions for smaller setbacks if a health risk analysis demonstrates that impacts are less than significant.</p> | <p>O8-7</p> |
| <p>2. Policy COS -7.7 would require the use of pipelines to convey oil and produced water offsite as opposed to trucks, whereas the current zoning code requires use of pipelines except when impractical or infeasible. The DEIR concludes that it may be technologically or economically infeasible for more remote operations (more than two miles from a major oil</p> | <p>O8-8</p> |

transmission line) to meet this requirement. The DEIR notes that “most” oil wells in the County are clustered within two miles of “major oil transmission pipelines.” While the DEIR concludes that loss of oil production would likely be primarily at a small scale and associated with oil operators outside of a two-mile radius of a major oil or gas transmission line, smaller producers within two miles may have difficulty meeting the requirement with more efficiency gained from using trucks. The DEIR concludes that the impact of the policy would be potentially significant but reduced to less than significant by allowing an oil operator to use truck if it can demonstrate that the conveying oil and produced water is via pipeline is infeasible. This mitigation fails to provide a meaningful standard with respect to demonstrating infeasibility.

O8-8
cont.

3. COS Implementation Program M requires the County to evaluate the feasibility of establishing a local tax on new oil and gas operations. No discussion is provided as to why such a tax would be desirable, what it could be used for or what alternatives to a tax have been considered. COS Implementation Program U requires amendments to the county’s zoning ordinances to require “solar canopies” in parking lots of non-residential projects with floor area greater than 50,000 square feet. This Program does not appear to consider whether solar canopies in parking lots are the most efficient way to impose a solar requirement on new development. It directs a change in law without any consideration of the potential impacts of doing so.

O8-9

C. Agriculture

1. There are a number of agricultural policies that require the County to encourage or minimize specified impacts “when feasible” but provide no meaningful standards to determine feasibility. For example, Policy AG-5.2 requires the County to support the transition to electric, renewable or lower emission agricultural equipment “when feasible”. It is unclear how feasibility will be determined such as whether market availability of equipment or some other standard is proposed. Similarly, proposed new policy AG-5.5 encourages using farmland to sequester carbon through various methods “such as reduced tilling, covercropping, composting, biochar, and other activities that both reduce greenhouse gas (GHG) emissions and increase carbon sequestration and storage, when feasible.” Here the policy provides examples but again, provides no meaningful standard to determine feasibility and provides decision makers with unbridled discretion to impose conditions on agricultural operations.
2. The Agriculture Element says “Goals, policies, and implementation programs related to farmworker and farm family housing are included in Chapter 3, Housing Element.” (2040 General Plan Update, pg. 8-2.) However, the Housing Element sections says it will be updated following the receipt of the County’s RHNA numbers and only provides

O8-10

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| | <p>information regarding the process that will be followed to conduct this subsequent update. The County should at least make a reasoned effort to explain how farmworker housing fits into the overall County housing framework and how it relates to the County’s RHNA numbers.</p> | <p>O8-10 cont.</p> | |
| <p>3.</p> | <p>Draft EIR Mitigation Measure AG-1, including New Policy AG-X and Implementation Program AG-X, require discretionary development to avoid loss of Important Farmland to the extent feasible, and require permanent preservation of “offsite” farmland through conservation easements to mitigate direct or indirect loss of Important Farmland. The measure should clarify that “offsite” means any qualifying farmland not located within the lost farmland, including farmland that is contiguous with, adjacent to, or part of the same legal parcel as the lost farmland. In addition, the measure should provide that the requirement does not apply to discretionary projects involving agriculture-dependent or agriculture-related uses sited on Important Farmland, such as farm stands, wineries, breweries, and agriculture-tourism facilities, including parking for such uses.</p> | <p>O8-11</p> | |
| <p>D. Land Use</p> | <p>1.</p> | <p>The 2040 General Plan Update generally maintains the same use restrictions on agricultural and open space land. It also emphasizes a tightening when it comes to making changes to develop uses on such lands. For example, under the discussion in the 2040 General Plan Update of agricultural land policies, it states a County policy direction to “Establish policies and regulations which restrict agricultural land to farming and related uses rather than other development purposes.” (2040 General Plan Update, pg. 2-28 and 2-32.) However, there may be desirable complimentary uses to agriculture that could be prohibited by this policy. For example, it is unclear whether a wine tasting room in connection with a vineyard would be considered a farming related use. Care should be taken to assess the overall implications of restrictive land use policies on potentially desired land uses in agricultural areas.</p> | <p>O8-12</p> |
| <p>2.</p> | <p>Policy LU-6.1 requires non-agricultural land uses adjacent to agricultural uses to “incorporate adequate buffers (e.g. fences, setbacks) to limit conflicts with adjoining agricultural operations.” This policy provides an open-ended standard that does not really provide any meaningful guidance to decision makers. For example, the County would have unbridled discretion to determine setbacks leaving development proponents with no meaningful way to determine project parameters.</p> | | |
| <p>3.</p> | <p>Policy “LU-8.5 Farmworker Housing” is a new policy supporting development of farmworker housing: “The County shall support the development of safe and quality farmworker housing that facilitates a reliable labor force and promotes efficient agricultural operations.</p> | | |

Housing units shall include a variety of housing types, including group quarters and larger dwelling units that can accommodate a family. (RDR) [Source: New Policy].” Existing policy concerning uses appropriate for the agriculture land use designation include uses “accessory to agriculture” but that policy does not specifically call out farmworker housing. It is unclear whether farmworker housing would be allowed on agricultural land. Future development of farmworker housing on agricultural land should be made explicit.

08-12
cont.

4. Policy LU-11.3 requires new commercial and industrial developments to be designed, among other things, to “reduce vehicle miles traveled (VMT)”. (General Plan DEIR, pg. 4.8-11.) However, it is unclear how project design would affect VMT since VMT may be more a function of project location than design. The County should clarify the types of design measures it expects projects to potentially implement to reduce VMT. If the County’s intent is to simply discourage commercial and industrial development in certain parts of the County and to promote it in others, it should just say so.

5. Policy COS-4.3 that is referenced in Land Use Element requires all structures and sites designated, or being considered for designation as County Historical landmarks to be preserved as a condition of discretionary development unless the structure is unsafe or deteriorated beyond repair. This absolute mandate that provides a “one-size fits all” approach to potentially historic structures and sites does not recognize that there may be unique circumstances in which such an approach is unwarranted. Under this proposed policy, preservation of structures or sites is mandated if they are “being considered for designation” whether they eventually become designated or not. Such a policy is so open ended it is impossible to assess its potential impacts. CEQA recognizes that an historical resource listed in a local register is presumed to be historically or culturally significant unless a preponderance of evidence demonstrates it is not historically or culturally significant. (CEQA Guidelines, Section 15064.5(a)(2).) By providing an absolute preservation standard, Policy COS-4.3 conflicts with the aforementioned CEQA Guidelines section that allows evidence to be presented and evaluated on the question of whether a resource is historic. There may be circumstances in which removal or alteration of an historical or cultural resource may be desirable or warranted. For example, CEQA also allows for a statement of overriding considerations even if an impact is determined to be significant after all feasible mitigation is applied.

08-13

E. Population and Housing

1. This section discusses RHNA and the County’s inventory of building sites that it claims are sufficient to meet future housings needs, including affordable housing needs. It does not disclose that the County is on the

08-14

state list of agencies that have not made sufficient progress toward their Above Moderate income RHNA and/or have not submitted the latest Housing Element Annual Progress Report (2018), and are therefore subject to the streamlined ministerial approval process (SB 35 (Chapter 366, Statutes of 2017) streamlining) for proposed developments with at least 10% affordability.

O8-14
cont.

F. Circulation, Transportation and Mobility Element

1. Policies in the Circulation, Transportation and Mobility Element appear to require both Vehicle Miles Traveled (“VMT”) and Level of Service (“LOS”) analysis for discretionary projects. Policy CTM-1.1 requires VMT analysis and Policy CTM-1.4 requires LOS analysis. Policy CTM-1.4 states that the LOS analysis is to evaluate the effects of a project on the roadway system. However, it is unclear why both VMT and LOS would be required in light of SB 743. CEQA Guidelines Section 15064.3, which implements SB 743, provides that vehicle miles traveled is the most appropriate measure of transportation impacts and that “a project’s effect on automobile delay shall not constitute a significant impact.” Pursuant to CEQA Guidelines Section 15064.3, this section, is effective statewide beginning July 1, 2020, with the exception that a lead agency may elect to be governed by the CEQA Guidelines sooner. In light of the direct guidance that has determined that automobile delay will no longer be considered a significant impact, it is unclear why the County would still require LOS evaluation or have any project standards tied to LOS analysis.

O8-15

G. GHGs and Climate Change

1. Policy COS-10-4 Greenhouse Gas Reductions in Existing and New Development provides that the County “shall reduce GHG emissions in both existing and new development through a combination of measures included in the GHG Strategy”. These strategies include “new and modified regulations.” Without identifying what these potential new and modified regulations would entail, it is unclear how they would affect existing business operations, future development and/or the physical environment. While this policy may assume such new regulations would reduce greenhouse gases, issues such as whether the regulations would have secondary impacts leading to significant environmental effects is not known.
2. Additionally, the DEIR would eliminate Implementation Program COS-EE, which provides for streamlined GHG analysis for projects consistent with the General Plan; this seems undesirable since the purpose of program EIRs is in part to streamline future environmental review.

O8-16

BILD respectfully requests clarification or remedy for all points raised herein prior to the adoption of the Ventura County General Plan Update.

Thank you for your thoughtful consideration.

Sincerely,



Adam S. Wood
 Administrator
 Building Industry Legal Defense Foundation

08-17

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|----------------------|-------------------------------------------------------------------------------------------------------|
| Letter O8 | Building Industry Legal Defense Foundation Adam S. Wood, Administrator February 27, 2020 |
|----------------------|-------------------------------------------------------------------------------------------------------|

- O8-1 The description of the role of the commenting organization is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

- O8-2 This comment states that the term “when feasible” in Mitigation Measure BIO-1 (New Implementation Program COS-X: Protection of Sensitive Biological Resources) is used without providing a definition or meaningful standard of feasibility. This comment has been addressed through the addition of the term “feasible” defined in the footnote with the definition of “feasibility” to Mitigation Measure BIO-1. Refer to response to comment A3-5 for the full text of revised Mitigation Measure BIO-1, which addresses the issues raised by this comment.

- O8-3 The comment provides suggested edits to policies proposed in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- O8-4 This comment, like comment O8-2, states that the term “if feasible” in Mitigation Measures BIO-1 (New Implementation Program COS-X: Protection of Sensitive Biological Resources) is used without providing a definition or meaningful standard of feasibility. See response to comment O8-2, which explains that the draft EIR has been revised to add a footnote to this mitigation measure to define “feasibility.”

This comment also states that the measure should more clearly define what is meant by “wildlife corridors.” Definitions, description, and discussion of wildlife corridors are provided in Section 4.4-1 “Background Report Setting Updates” and in the Background Report, which is incorporated in the draft EIR by reference. Additionally, the 2040 General Plan Glossary includes a definition for Habitat Connectivity and Wildlife Corridors as “Areas of contiguous natural habitats or undeveloped land of sufficient width to facilitate the movement, migration, foraging, breeding, and dispersal of multiple wildlife or plant species between two or more core habitat areas. The boundaries of the Habitat Connectivity and Wildlife Corridor areas and the Habitat Connectivity and Wildlife Corridors overlay zone are coterminous. This issue has been addressed and further comment is not required.

- O8-5 This comment objects to an update to the County’s Initial Study Assessment Guidelines that requires that wetland mitigation be “in kind” and that “on-site restoration...shall be preferred...” Mitigation Measure BIO-1 includes the option of on-site or off-site restoration, but does not include any limits to this mitigation; thus, this measure is not in conflict with Implementation Program B of the 2040 General Plan’s Conservation and Open Space Element. Further, the comment addresses the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no additional response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O8-6 The comment provides suggested edits to policies proposed the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O8-7 Refer to Master Response MR-4, Section MR-4.H, “Buffers (Setback),” for discussion of the findings and conclusions related to setbacks.
- O8-8 Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements,” regarding the findings and conclusions related to pipelines.
- O8-9 Programs M and U of the Conservation and Open Space Element were developed by the County to implement policies that support the County’s overarching goals, as outlined in the 2040 General Plan. The physical environmental impacts of implementing these policies are evaluated throughout the draft EIR.
- The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General Plan.
- O8-10 The comment addresses the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General

Plan. Also, refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2 and Master Response MR-3 regarding RHNA numbers.

O8-11 To clarify, Mitigation Measure AG-1 requires that the County include a policy in the General Plan that ensures discretionary development on Important Farmland be conditioned to avoid direct loss of Important Farmland as much as feasibly possible. The conservation easement requirement is found in Mitigation Measure AG-2. Refer to Master Response MR-5 for discussion of the feasibility of Mitigation Measure AG-2.

O8-12 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

O8-13 Through Policy COS-4.3, the County would:

require all structures and sites that are designated, or being considered for designation, as County Historical Landmarks to be preserved as a condition of discretionary development, in accordance with the Secretary of the Interior Standards, unless a structure is unsafe or deteriorated beyond repair.

The potential impacts of implementing this policy are evaluated pursuant to CEQA standards throughout the draft EIR. Section 4.5, "Cultural, Tribal Cultural, and Paleontological Resources," of the draft EIR discusses the potential effects of the 2040 General Plan on historical and cultural resources.

Policy COS-4.3 requires compliance with the Secretary of the Interior's Standard. As explained on page 4.5-2 of the draft EIR;

The Secretary of the Interior's Standards for the Treatment of Historic Properties (Secretary's Standards), codified in 36 CFR 67, provide guidance for working with historic properties. The Secretary's Standards are used by lead agencies to evaluate proposed rehabilitative work on historic properties. The Secretary's Standards are a useful analytic tool for understanding and describing the potential impacts of proposed changes to historic resources. Projects that comply with the Secretary's Standards benefit from a regulatory presumption that they would not result in a significant impact to a historic resource.

The draft EIR includes mitigation that would require project-level evaluation before altering all buildings or structures that are 50 years old or older. Significance would be assessed by a qualified architectural historian using the significance criteria set forth for historic resources under CEQA Guidelines Section 15064.5. With Mitigation Measure CUL-3, evaluation of potentially eligible sites would be undertaken by the project applicant, which would permit a timely determination of eligibility for County Historical Landmark status.

Policy COS-4.3 does not contradict the requirements of CEQA. Moreover, the standards for evaluation of historical resources established by CEQA do not limit a local agency's ability to condition discretionary development.

O8-14

Ventura County's 2019 Annual Progress Report on the status of the General Plan is available online (Ventura County 2020). The purpose of this Annual Progress Report is to summarize building activity and efforts to facilitate affordable housing completed in the previous calendar year. The 2019 annual report reflects the most recent reporting requirements and was accepted by the California Department of Housing and Community Development in April 2020.

A jurisdiction is subject to SB 35 requirements if the number of dwelling units for which it issued building permits is less than its Regional Housing Needs Allocation (RHNA) share by income category for that reporting period. The California Department of Housing and Community Development released its list of jurisdictions which did not make sufficient progress towards meeting their RHNA share using data reported from 2014-2016 in February of 2018. Ninety-seven percent of all cities and counties were identified as not having enough new housing construction to meet their RHNA targets (Ventura County 2020).

The County's success at meeting past RHNA allocations does not affect the conclusions of the draft EIR relative to potential to displace affordable house (Impact 4.14-1), induce unplanned population growth (Impact 4.14-2), or increase demand for low-income housing that exceeds the County's inventory of appropriately designated land (Impact 4.14-3). No changes have been made to the draft EIR in response to this comment.

O8-15

The VMT and LOS standards within the draft 2040 General Plan are consistent with both state law and the state's General Plan Guidelines. While LOS is no longer to be used as a determination of significance under CEQA, the County has the authority under state law to continue to use LOS for establishing and determining discretionary project-level consistency with General Plan policies (i.e., determining whether discretionary development may result in an unacceptable LOS to County roadways), and as the basis for developing discretionary project-level conditions of approval and imposing fees on new development to fund transportation related improvements needed to obtain consistency with applicable General Plan policies. Thus, the County intends to utilize both VMT and LOS standards, and the method by which the County will do so is clearly articulated within the following 2040 General Plan policies:

Policy CTM-1.1: Vehicle Miles Traveled (VMT) Standards and CEQA Evaluation.

The County shall require evaluation of County General Plan land use designation changes, zone changes, and discretionary development for their individual (i.e., project-specific) and cumulative transportation impacts based on Vehicle Miles Traveled (VMT) under the California Environmental Quality Act (CEQA) pursuant to the methodology and thresholds of significance criteria set forth in the County Initial Study Assessment Guidelines.

Policy CTM-1.3: County Level of Service (LOS) Standards

The County shall maintain LOS standards for use as part of the County's transportation planning including the traffic impact mitigation fee program, and the County's review and policy consideration of proposed land use legislation and discretionary development.

In short, the draft 2040 General Plan identifies two standards. VMT would be used to determine CEQA impacts and evaluate air quality impacts and greenhouse gas emissions, and LOS would be used to evaluate and determine the ability of the circulation system to meet the County's mobility needs and standards.

O8-16

The comment notes that 2040 General Plan Policy COS-10.4 provides that the County "shall reduce GHG emissions...through a combination of measures included in the GHG Strategy, which includes new and modified regulations..." and expresses concern about the potential for "secondary impacts leading to significant environmental effects" caused by the new and modified regulations.

2040 General Plan Policy COS-10.4 is a component of the project that was evaluated in the draft EIR. New and modified regulations supporting GHG reducing activities may be considered under Policy COS-10.4 by the County at any time following adoption of the 2040 General Plan. As the commenter notes, the specific details of new or modified regulations that could be identified in the future under this policy are not known at this time and, therefore, it would be inappropriately speculative to analyze the physical environmental effects of such new or modified regulations in the EIR for the 2040 General Plan. An appropriate level of CEQA analysis would occur if determined to be necessary for any such actions identified in the future.

The draft EIR does not rely on implementation of this policy, and any future new or modified regulations under this policy, to support the GHG emissions analysis and impact conclusions in Section 4.8, "Greenhouse Gas Emissions." Also, the draft EIR does analyze the physical environmental effects from implementation of the policies and programs included in the 2040 General Plan, including policies and programs that would reduce GHG emissions from existing and future development.

The comment also indicates that elimination of Implementation Program COS-EE, as identified in the draft EIR "seems undesirable since the purpose of program EIRs is in part to streamline future environmental review." For clarification, Mitigation Measure GHG-3 would not impair the utility of a program EIR for streamlining environmental review of future projects that are consistent with the 2040 General Plan. Mitigation Measure GHG-3 would only eliminate the program for streamlining and tiering subsequent CEQA review of project-level greenhouse gas emissions pursuant to State CEQA Guidelines Section 15183.5. As a result, future projects that tier from this program EIR would need to conduct a project-specific GHG analysis. See Master Response MR-1.C for further discussion.

O8-17

Refer to responses to comments O8-1 through O8-16, above, for responses to the specific comments and concerns raised in this letter.

CALCIMA

Letter
09

California Construction and
Industrial Materials Association

February 27, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Via e-mail: GeneralPlanUpdate@ventura.org

RE: Ventura County General Plan – Mineral Resources – Draft EIR Comments

Dear Mrs. Curtis:

These comments are offered on behalf of the California Construction and Industrial Materials Association (CALCIMA). CALCIMA is a statewide trade association representing construction and industrial material producers in California. Our members supply mineral resources such as construction aggregate inclusive of sand, gravel, crushed stone, slag, and recycled concrete that build our state's infrastructure, including public roads, rail, and water projects; help build our homes, schools and hospitals; assist in growing crops and feeding livestock; and play a key role in manufacturing wallboard, roofing shingles, paint, low energy light bulbs, and battery technology for electric cars and windmills. Our members develop mineral resources to provide the raw materials necessary to maintain society, and strategically site their operations throughout the state to minimize air quality impacts and greenhouse gas emissions associated with transportation by truck.

09-1

The Draft EIR for the Ventura County 2040 General Plan Update fails to give non-oil and gas mineral resources appropriate attention and analysis for impacts. As such the DEIR is deficient and should be corrected as we detail below. Once corrected, the DEIR should be recirculated for public review.

09-2

Incomplete Regulatory Setting

Neither the DEIR nor the Background report provide a complete and thorough description of the existing, current regulatory setting that oversees the management and production of mineral resources in the County and the State of California. This omission is particularly concerning because the existing General Plan discusses many of these regulatory schemes in great detail, along with the importance of mineral resources, generally, and the mineral resources located in the County, specifically. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under the CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

09-3

Further, the deletion of policies from the previous general plan which are part of the current regulatory environment and whose removal may negatively impact mineral resources is not included in the current

09-4

regulatory background. Nor is their removal analyzed or quantified. Specifically, existing General Plan Policy 1.4.2 #6 "All General Plan amendments, zone changes, and discretionary developments shall be evaluated for their individual and cumulative impacts on access to and extraction of recognized mineral resources, in compliance with the California Environmental Quality Act," is not included in the revised general plan. Nor is any analysis of how that removal could affect mineral resources, or any explanation for why it's being removed. We remind you that mineral resources are part of the "environment" protected by CEQA.

O9-4
cont.

"Less than Significant" Impact Determination Not Supported

The EIR fails to provide any discussion of non-oil and gas mineral resources in the "environmental setting" discussion in section 4.12 of the EIR. Without an understanding of the regulatory and environmental setting, there is simply no information or data in the EIR to support the County's outright dismissal of impacts to mineral resource production as "less than significant."

O9-5

Further, the EIR fails to actually analyze for direct and indirect impacts to mineral resource zones that will occur as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses over known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. These incompatible land uses will significantly impact future mineral resource production and must be evaluated and mitigated for in the EIR.

O9-6

Finally, the determination of impacts on page 4.12-10 is not only completely unsupported, but it is contradicted in the EIR's language. The EIR admits that residential and industrial uses will be installed in the MRZ-2 zone (a major mineral resource zone), but then never provides any quantification of impacts or discusses the extent, location, or intensity of the development within the MRZ-2 zone. This impact is not "less than significant" as development over the MRZ-2 zone will significantly hamper access to these resources. The County's analysis is contrary to ISAG threshold of significance 1., which states that, "Any land use or project activity which is proposed to be located on or immediately adjacent to land zoned Mineral Resource Protection (MRP) overlay zone, or adjacent to a principal access road to an existing aggregate Conditional Use Permit (CUP), and which has the potential to hamper or preclude extraction of or access to the aggregate resources, shall be considered to have a significant adverse impact on the environment."

O9-7

Direct and Indirect Impacts Not Analyzed Or Quantified

The EIR concedes that more than half of the project area to be impacted by the 2040 General Plan is zoned MRZ-3a/b. The County admits in the EIR that areas zoned MRZ 3a/b are those areas with known mineral deposits that lack sufficient detailed information to be labeled MRZ-2. But the EIR fails to conduct any impact determination or analysis of the project on these mineral resources and deposits.

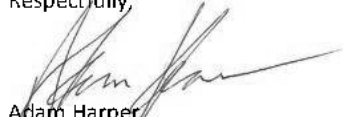
O9-8

The EIR never addresses indirect impacts to mineral resource development that will occur under the 2040 General Plan. As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to produce mineral resources in the County.

O9-8
cont.

We appreciate the opportunity to provide comments.

Respectfully,



Adam Harper
Director of Policy Analysis

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| Letter O9 | California Construction and Industrial Materials Association Adam Harper, Director of Policy Analysis February 27, 2020 |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------|

O9-1 The California Construction and Industrial Materials Association’s role representing construction and industrial producers in California is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

O9-2 Refer to responses to comments O9-3 through O9-8, below, for responses to the specific comments and concerns about mineral resources raised in this letter.

Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

O9-3 The comment asserts that Section 4.12, “Mineral and Petroleum Resources,” lacks a “complete and thorough” description of the existing regulatory setting. The comment does not, however, provide any specific regulations that are absent from the regulatory setting which would inform the analysis or conclusions in the draft EIR. Therefore, no further response can be provided. Note, however, that the County has revised the regulatory setting to include an enhanced discussion of the California Geologic Energy Management Division’s regulations. Refer to Chapter 3, “Revisions to the Draft EIR.”

O9-4 The comment raises concern about differences between the existing general plan (2005) and the proposed 2040 General Plan.

CEQA requires an evaluation of the project being proposed compared to baseline (existing) conditions, which are generally the existing physical environmental conditions (State CEQA Guidelines 15125[a]). As such, the draft EIR analyzes the potential for substantial adverse changes to the existing environment that could result from implementation of the proposed 2040 General Plan land use diagram, as well as proposed policies and implementation programs. This is the appropriate methodology under CEQA. The analysis in the draft EIR is not intended to provide a comparison of the proposed 2040 General Plan against the existing general plan (2005). This would be a plan-to-plan evaluation, which is specifically prohibited through CEQA and relevant case law. Chapter 6, “Alternatives,” of the draft EIR compares the significant environmental effects of the 2040 General Plan to significant environmental effects of the No Project Alternative, in which the existing General Plan (2005) would remain in effect (Section 6.5.1, page 6-12).

Additionally, the commenter states that removal of existing general plan Policy 1.4.2.6 is of concern. This policy requires evaluation of discretionary actions for their potential to affect access to, and extraction of, recognized mineral resources in compliance with CEQA. The CEQA requirement to evaluate the potential for loss of availability of known mineral resources would continue to be applied and

implemented by the County on a case-by-case basis and would be unaffected by the 2040 General Plan.

O9-5 Commenter states that the draft EIR fails to provide any discussion of non-oil and gas minerals within the environmental setting portion of Section 4.12 (Mineral and Petroleum Resources). On page 4.12-5, the draft EIR refers the reader to Sections 8.4 (Mineral Resources) and 8.5 (Energy Resources) of the Background Report (draft EIR, Appendix B). Refer to Master Response MR-6, which explains the County's approach to utilizing the existing setting information in the Background Report.

O9-6 Refer to Master Response MR-2 for an explanation of the land use diagram and buildout assumptions used in the draft EIR. Refer to response to comment O5-90 for a discussion of policies in the 2040 General Plan that would address the potential for discretionary development that could hamper or preclude extraction of mineral resources.

The potential for the 2040 General Plan to result in development on or adjacent to existing mineral extraction sites, which could hamper or preclude access to the resources, is evaluated in Section 4.12, "Mineral and Petroleum Resources," (Impact 4.12-1).

O9-7 The impact conclusion on page 4.12-10 relates to Impact 4.12-1 (Result in Development on or Adjacent to Existing Mineral Resources Extraction Sites or Areas Where Mineral Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Extraction of the Resources). The discussion in the draft EIR provides an appropriate evaluation of potential program impacts. The evaluation is based on Section 3a, thresholds 1 and 2 of the Initial Study Assessment Guidelines, which were modified to consider the programmatic nature of a general plan for the entire unincorporated area (refer to page 4.12-6 of the draft EIR).

Future discretionary actions would be subject to review using the County's Initial Study Assessment Guidelines and/or other applicable CEQA and State law requirements in place at the time of the proposal. Further, there are policies in the 2040 General Plan that would address the potential for incompatible land use that could occur if the land use diagram were implemented without the policy framework. Refer to response to comment O5-90.

O9-8 The complete draft 2040 General Plan was reviewed in preparation of the draft EIR. The potential for the 2040 General Plan to generate indirect impacts that could "hamper" mineral resource extraction is evaluated under Impact 4.12-1. As explained on page 4.12-10, Policy COS-6.5 would:

...promote mineral resource land use capacity by ensuring that discretionary development in areas designated MRZ-2 is compatible with mineral resources extraction and processing activities. Specifically, the County would require an evaluation of the significance of the mineral resources deposits located in the area of a proposed discretionary development and determine whether the use would significantly hamper or

preclude access to, or the extraction of, mineral resources; and require discretionary development proposed adjacent to existing mining operations to provide a buffer (based on an evaluation of noise, community character, compatibility, scenic resources, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality) between the development and mining operations to minimize land use incompatibility and avoid nuisance complaints. This review would address discretionary development both on or adjacent to mineral extraction sites and adjacent to principal access roads to existing aggregate extraction or production sites.

Policy COS-6.5 is also included in the evaluation of Impact 4.11-1 (Result in Physical Development That Is Incompatible With Land Uses, Architectural Form Or Style, Site Design/Layout, Or Density/Parcel Sizes Within Existing Communities) in Section 4.11, "Land Use and Planning."

The analysis in the draft EIR for Impact 4.12-2 (Result in the Loss of Availability of a Known Mineral Resource That Would Be of Value to the Region and the Residents of the State) acknowledges the MRZ-3 lands in the plan area, but determined that "it would be speculative to assess the potential effects of future development in these areas" as a loss of a known mineral resource pursuant to the threshold "because MRZ-3 and MRZ-3a areas have not been established as areas of value to the region or the State" (draft EIR page 4.12-11). Refer to response to comment O5-91.



California Independent Petroleum Association
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Letter
O10

February 27, 2020

VIA ELECTRONIC DELIVERY

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L#1740
Ventura, CA 93009
GeneralPlanUpdate@ventura.org

Re: Comments on Ventura County 2040 General Plan Draft Environmental Report (State Clearinghouse No. #2019011026)

Dear Ms. Curtis,

The California Independent Petroleum Association (CIPA) appreciates the opportunity to submit comments on the Draft Environmental Impact Report (DEIR) prepared for the County of Ventura's (County) proposed update to its existing general plan (GP 2040). While we appreciate the County's efforts to comply with the California Environmental Quality Act (CEQA) in preparing the DEIR, our review of the DEIR reveals that it contains numerous legal defects. Many sections of the DEIR must be substantially revised, and the DEIR must be recirculated, before it can be considered for certification.

O10-1

CIPA represents several independent oil and gas producers in the County. CIPA's producer members actively contribute to the County's economic base, provide myriad local employment opportunities and produce oil and gas resources within the County in an environmentally responsible manner.

O10-2

CIPA seeks to promote greater understanding and awareness of the critical role domestic oil and gas production plays in powering the County's vibrant economy. Local oil and natural gas producers provide both the energy and the building blocks of nearly every material that County residents utilize on a daily basis, and we recognize that the affordability, reliability and resilience of those supplies will largely determine whether the County achieves a more vibrant

and inclusive economy, a more equitable society, and continued improvements in environmental quality.

O10-2
cont.

The policies and additional restrictions proposed in the general plan (GP 2040) will devastate the vitality of the County of Ventura by: eliminating thousands of high-paying, middle-class jobs; costing the County tens of billions of dollars; relinquishing tens of millions of dollars in local tax revenues; raising the cost of living for all Ventura residents; and threatening the economy and the livelihoods of Ventura residents by increasing dependence on unreliable foreign sources of oil.

O10-3

The DEIR not only lacks proper analysis on the economic impacts said restrictions and policies will have on the residents of Ventura County, but relies on factually incorrect and underpin assumptions to complete its analysis.

O10-4

For these reasons and many others, we urge the County to revise the DEIR and recirculate before it's considered for certification.

CEQA COMMENTS:

1. CIPA joins in the comments submitted by Aera Energy LLC.

CIPA member Aera Energy LLC has submitted a number of comments concerning the legal adequacy of the DEIR, and CIPA joins in those comments.

O10-5

2. CIPA joins in the comments submitted by Western States Petroleum Association .

The Western States Petroleum Association (WSPA) has also submitted numerous comments on the DEIR. CIPA joins in those comments as well.

3. The DEIR's GHG emissions analysis is legally flawed.

To reduce the production of greenhouse gas (GHG) emissions we must decrease our reliance on energy imports for over 90% of our natural gas, 70% of our oil and 30% of our electricity needs. GP 2040 proposes adoption of policies that will significantly increase Ventura's dependence on imported energy, meaning that Ventura is delegating its environmental leadership to other states, countries and regimes that do not share our environmental, labor, and human rights standards.

O10-6

The DEIR concedes that adoption of GP 2040 will cause the County to rely on imported energy, but fails to quantify, evaluate or propose mitigation for the resulting increase in GHG emissions. In section 4.12, the DEIR states that "the demand for California-produced oil and gas would be satisfied through the importation of additional oil and gas from other countries and Alaska, which in turn could have indirect environmental impacts such as those associated with transporting the oil and gas from outside of Ventura County." This is extremely alarming since

the increase of imported energy has a clear and direct impact on our environment, much more than from the result of local production. The DEIR makes no attempt to analyze this impact. The DEIR must evaluate this known adverse impact and propose feasible mitigation measures.

O10-6
cont.

4. Factually incorrect and unsupported assumptions underpin much of the DEIR’s analysis.

The DEIR assumes that new discretionary permits will be issued for oil and gas wells, but fails to recognize the fact that oil and gas operations within the GP 2040 boundary will continue to operate under, valid and vested entitlements. To the extent the DEIR assumes that such operations will be subject to further discretionary review and the imposition of additional mitigation measures and/or conditions, that assumption is incorrect as a matter of law, and all analysis flowing from it is flawed.

O10-7

GP 2040 Policies COS 7.2 and COS 7.3 are presented in the DEIR as limiting effects on human health. The DEIR cites a County of Los Angeles 2018 report as the basis for assuming that stated limiting effect on human health. What the Draft EIR fails to mention or quantify in any substantial manner, is the fact that the County of Los Angeles 2018 report’s conclusions and recommendations lack grounding scientific research. The report lacks objective scientific data from the County of Los Angeles; reviews other jurisdictions outside of California when making recommendations or claims; uses weak, unsubstantiated, misleading language and science; excludes the County of Los Angeles Department of Heath’s own data and previous studies.

O10-8

The Draft EIR also makes reference to the 2019 City of Los Angeles Oil and Gas Health Report. That report clearly states, “There is a lack of empirical evidence correlating oil and gas operations within the City of Los Angeles to widespread negative health impacts. The lack of evidence of public health impacts from oil and natural gas operations has been demonstrated locally in multiple studies by the Los Angeles County Department of Public Health, the Los Angeles County Oil & Gas Strike Team, the South Coast Air Quality Management District and the comprehensive Kern County Environmental Impact Report and Health Risk Assessment.” Lastly, the DEIR relies in part on unsettled legislation, Assembly Bill 345. Assembly Bill 345 is not law and the DEIR cannot treat it as such.

We thank the County for this opportunity to review and comment on the DEIR for GP 2040, and we ask that these comments be included in the record of proceedings in this matter. As set forth above and further articulated in the comments submitted by Aera Energy LLC and WSPA, the DEIR suffers from numerous legal defects. These defects must be cured and the DEIR must be recirculated

O10-9

Sincerely,



Rock Zierman
Chief Executive Officer
California Independent Petroleum Association

| | |
|-----------------------|-------------------------------------------------------------------------------------------------------------------|
| Letter O10 | California Independent Petroleum Association Rock Zierman, Chief Executive Officer February 27, 2020 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------|

- O10-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided. Refer to responses to comments O10-2 through O10-8, below, for responses to the specific comments and concerns raised in this letter.
- Regarding the comment that the draft EIR should be recirculated, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.
- O10-2 The California Independent Petroleum Association’s role representing oil and gas producers and understanding the oil and gas production in the Ventura County economy is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- O10-3 This comment expresses disapproval of the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General Plan.
- O10-4 The comment states that the draft EIR does not include an analysis of economic impacts. However, EIRs are not required to treat a project’s economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR.
- The comment also states that the draft EIR relies on factually incorrect assumptions, but it does not provide specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR. Therefore, no further response is provided.
- Regarding the comment that the draft EIR should be recirculated, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.
- O10-5 The commenter refers to letters submitted by Aera Energy LLC and WSPA. See responses to Letters O5, O6, and O37.
- O10-6 The comment states that the draft EIR’s GHG emissions analysis is legally flawed and makes assertions related to “imported energy.” Refer to response to comment O2-6 regarding GHG emissions and imported energy.

- O10-7 The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O10-8 Refer to Master Response MR-4, Section MR-4.E, “Applicability of Reference Studies for Oil and Gas Operations,” regarding the validity of relying on this and related reports.
- O10-9 Refer to responses to comments O10-2 through O10-8, above, for responses to the specific comments and concerns raised in this letter.
- Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.



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Letter
O11

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24 February 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, California 93009-1740
susan.curtis@ventura.org, GeneralPlanUpdate@ventura.org

Re: Request for 90-Day Comment Deadline Extension on the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan

Dear Ms. Curtis:

The California Native Plant Society (CNPS) respectfully requests an extension of the comment period for the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan (State Clearinghouse No. 2019011026).

The current 45 day comment period imposes a deadline of February 27, 2020, and is inadequate to allow full review of:

- (1) the Draft EIR which covers complex issues in its 598 pages plus six appendices, including a 1,034 page background report and
- (2) the Public Review Draft of the General Plan, which is 463 pages and includes four appendices.

It is simply not possible for CNPS to meaningfully review and comment on these documents in such a short timeframe.

CNPS has a long collaborative history with the Ventura County Planning Division and wishes to ensure that that good relationship is maintained, and that the botanical resources of Ventura County are given the appropriate level of attention it deserves.

Due to the sheer volume and complexity of the materials, we believe an additional 90 days is required. Extending the deadline to May 27, 2020 would allow for a more comprehensive review and more useful comments.

Respectfully,

David L. Magney, CNPS Rare Plant Program Manager
Certified California Consulting Botanist No. 0001

Nicholas Jensen, PhD, CNPS Conservation Scientist

O11-1

| | |
|-----------------------|-----------------------------------------------------------------------------------------------------------------|
| Letter O11 | California Native Plant Society David L. Magney, CNPS Rare Plant Program Manager February 24, 2020 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------|

O11-1 The draft EIR was available for a 45-day review period from January 13, 2020, to February 27, 2020, in compliance with CEQA (Pub. Res. Code, § 21091). The commenter's request for extension of the comment period has been noted. No extension of the comment period was granted.



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Letter
O12

27 February 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, California 93009-1740
susan.curtis@ventura.org, GeneralPlanUpdate@ventura.org

**Re: Comments on the Draft Environmental Impact Report for the County of Ventura
Draft 2040 General Plan**

Dear Ms. Curtis:

The California Native Plant Society (CNPS), a membership-based 501(c)(3) nonprofit corporation herein provide these comments on the proposed Ventura County 2040 General Plan (GP) and associated Draft Environmental Impact Report (DEIR). CNPS’s comments are focused on the biological resources with the intent to ensure that they are appropriately conserved through land use planning and government actions and management at the discretion of the county.

O12-1

General Comments:

There is no mention of information on the botanical resources of Ventura County that have been developed and made available to the public, such as by the Channel Islands Chapter of the California Native Plant Society (CNPSCI), available online at <http://cnpsci.org/>, and by David Magney for the Ventura County flora (www.venturaflorea.com). The GP mentions information provided by the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS), which is a good starting point; however, so much more detail is available that would be helpful to decisionmakers and the public that the true picture of the incredible biodiversity and species richness found in Ventura County.

O12-2

For example, there is no mention of bryophyte resources, nor any mention of lichens, which are generally referred to as nonvascular plants. Both of these groups are both diverse and important components of the biological resources of Ventura County.

Qualified Biologist – since there are no codified criteria that the VCPD uses consistently to determine who is qualified, CNPS highly recommends that the following be inserted under the definition of a qualified biologist:

Require use of a Certified Consulting Botanist for botanical resource assessments and surveys.

Require use of a Certified Restoration Ecologist or Certified Consulting Botanist for habitat restoration planning, mitigation, or implementation work.

Thresholds of Significance (page 4.4-13) uses the term “substantially”. “Substantially” is an ambiguous term that can be next to impossible to quantify, particularly if the impact appears to be small in some way. Without an actual metric, significant impacts could be considered less-than-significant by some biologists. Using actual numbers would be better, with some means to deviate if sufficient evidence is

O12-3



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provided to make a reasonable and sound, science-based argument for a different significance threshold number or metric.

For example, impacts to wetland habitat functions is identified as significant, if they are substantial. Measuring the total area of a wetland directly impacted is fairly straightforward; however, measuring the wetland functions that are impacted is more complex, and doing so for indirect impacts is even more challenging. It would be easier and fairer, and more accurate to use a tested assessment method, and set a significance threshold, say a 5% change, to determine if the impact would be significant. The only objective tool currently available to measure wetland functions is the U.S. Army Corps of Engineers' Hydrogeomorphic Assessment Method (HGM), which is described in more detail in comments below.

O12-3
cont.

Policies

Following are the proposed General Plan (GP) Conservation and Open Space Element policies, with CNPS's assessment of their benefit in protecting biological resources and how they could be improved to better meet the stated objectives.

The Public Review Draft Policy Document, Section 6.1 – Biological Resources, provides a **very** general overview that hardly captures the richness, diversity, and uniqueness of the biological resources within Ventura County. At least a bit more information would be beneficial in expressing this fact since so much information about the biological resources of the county is readily available, much of it compiled in each biological assessment performed for every project that has gone through a CEQA assessment.

For example, expand the sentence "Ventura County contains a diverse range of elevations, biogeographic features and ecosystems" with ", which provides a large variety of habitats that supports 321 species of lichens, 97 species of bryophytes, 1,939 **native** vascular plants (Magney 2020 - <http://venturaflora.com/files/vcfloristics.htm>), 338 bird species, 11 amphibian species, 30 reptile species, several freshwater fish species, 50 mammal species, and an unknown (very high) number invertebrate species, but at least 117 species of butterflies."

O12-4

Policy COS-1.1: Protection of Sensitive Biological Resources. The County shall ensure that discretionary development that could potentially impact sensitive biological resources be evaluated by a qualified biologist to assess impacts and, if necessary, develop mitigation measures that fully account for the impacted resource. When feasible, mitigation measures should adhere to the following priority: avoid impacts, minimize impacts, and compensate for impacts. If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.

This policy is good except there is no need or justification to insert "when feasible" regarding how to adhere to approaching mitigation measures for significant impacts. CEQA guidelines already provide the order of preference. The biggest challenge this policy faces is in how a "qualified biologist" is determined (see detailed comments and recommendations below).

Policy COS-1.2: Consideration of Sensitive Biological Resources. The County shall identify sensitive biological resources as part of any land use designation change to the General Plan Land Use Diagram or zone designation change to the Zoning Ordinance that would intensify the



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uses in a given area. The County shall prioritize conservation of areas with sensitive biological resources.

This policy is good; however, the means and criteria that should be used to determine which biological resources are considered sensitive needs to be defined. This should not be left to the environmental consulting firms hired by project proponents that will almost certainly have an inherent bias against identifying sensitive resources that would harm their client's project interests.

Policy COS-1.7: Balancing Resource Preservation and Flood Protection. The County shall require that discretionary development and County-initiated projects balance the preservation of streams, wetlands, and riparian habitats with the need to adequately protect public safety and property from flooding hazards by incorporating natural or nature-based flood control infrastructure, (e.g., wetland restoration, soil conservation, vegetated levees), when feasible.

CNPS supports this policy.

Policy COS-1.8: Bridge Crossing Design. The County shall require discretionary development that includes new or modified road crossings over streams, wetlands and riparian habitats to include bridging design features with bridge columns located outside the riparian habitat areas, when feasible.

CNPS supports this policy.

Policy COS-1.9: Agency Consultation Regarding Biological Resources. The County shall consult with the California Department of Fish and Wildlife, the Regional Water Quality Control Board, the U.S. Fish and Wildlife Service, National Audubon Society, California Native Plant Society, National Park Service for development in the Santa Monica Mountains or Oak Park Area, and other resource management agencies, as applicable during the review of discretionary development applications to ensure that impacts to biological resources, including rare, threatened, or endangered species, are avoided or minimized.

O12-4
cont.

This policy is good except consultation should cover the entire county, not just for the Santa Monica Mountains and Oak Park areas. The VCPD staff biologists have in the past convened the biologists from the above listed entities to review various discretionary projects under review to obtain guidance on impacts and mitigation measures. At a minimum, these entities should receive formal notice of all discretionary projects that may impact biological resources so that they have an opportunity to provide comments, on any project anywhere in the county. The VCPD should maintain a list of contacts of biologists with each of these entities as part of this policy.

Policy COS-1.10: Evaluation of Potential Impacts of Discretionary Development on Wetlands. The County shall require discretionary development that is proposed to be located within 300 feet of a wetland to be evaluated by a County-approved biologist for potential impacts on the wetland and its associated habitats pursuant to the applicable provisions of the County's Initial Study Assessment Guidelines.

This policy is good but it should be strengthened by including impacts to wetland functions, not just habitats. Indirect impacts that adversely affect one or more wetland functions needs to be included in



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this policy. Also, the criteria for determining how the approved biologist is determined needs to be developed (see comments below about qualified biologists and wetland assessment methods).

Policy COS-1.11: Discretionary Development Sited Near Wetlands. The County shall require discretionary development to be sited 100 feet from wetland habitats, except as provided below. The 100-foot setback may be increased or decreased based upon an evaluation and recommendation by a qualified biologist and approval by the decisionmaking body based on factors that include, but may not be limited to, soil type, slope stability, drainage patterns, the potential for discharges that may impair water quality, presence or absence of endangered, threatened or rare plants or animals, direct and indirect effects to wildlife movement, and compatibility of the proposed development with use of the wetland habitat area by wildlife. Discretionary development that would have a significant impact on a wetland habitat shall be prohibited unless mitigation measures are approved that would reduce the impact to a less than significant level. Notwithstanding the foregoing, discretionary development that would have a significant impact on a wetland habitat on land within a designated Existing community may be approved in conjunction with the adoption of a statement of overriding considerations by the decision-making body.

This policy is good except the evaluation must be conducted by a Certified Wetland Scientist or a Certified Consulting Botanist. Since there are no standard or consistent methods used by the County to determine which biologists are actually qualified, such determinations are best made by professional peers, such as certification entities.”

Furthermore, the evaluation/assessment should use an objective assessment tool or model, such as the Hydrogeomorphic Assessment Method (HGM) regional models (<https://wetlands.el.erdc.dren.mil/pdfs/wrpde9.pdf>), which have been used successfully in Ventura County in the past using either the Santa Margarita River Riverine HGM model for low gradient streams and rivers or the South Coast Santa Barbara Riverine HGM model for high gradient streams. California Rapid Assessment Method (CRAM) models have only limited applicability in that CRAM does not measure wetland functions, only HGM models do. To determine significance, a percent change in wetland functions is an appropriate and unbiased approach. A 10% change threshold has been used successfully in such assessments in Ventura County using regional HGM models, but a 5% change may be more appropriate since a fully functioning wetland is extremely important for ecosystem health.

Policy COS-1.12: Discretionary Development and Landscaping. The County shall require landscaping associated with discretionary development, or subject to the California Water Efficient Landscape Ordinance (WELO), to be water-efficient and include native, pollinator-friendly plants consistent with WELO guidelines, as applicable. The planting of invasive and watch list plants as inventoried by the California Invasive Plant Council shall be prohibited, unless planted as a commercial agricultural crop or grown as commercial nursery stock.

The WELO ordinance was developed in San Mateo County and calls for 6 inches of compost and 3 inches of mulch in landscaping with the goal of conserving soil moisture from evaporation. This simplistic approach is not necessarily appropriate for landscaping using local native plants, and in many instances will kill them. The policy should be modified to include the development

O12-4
cont.



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of landscaping guidelines that are appropriate for Ventura County communities and native plants that meet the basic goals of WELO.

Policy COS-1.13: Partnerships for Protection of Natural and Biological Resources. The County shall continue to work in partnership with agencies, organizations, and entities responsible for the protection, management, and enhancement of the county's biological resources.

This policy is good, but listing of the entities would help eliminate potential for failure to notify select groups. Certainly, count CNPS in as both willing and able to work in partnership with the County to implement this policy.

Policy COS-1.14: Ecological Information Programs. The County shall support programs that encourage awareness and respect for the natural environment.

This policy sounds great; however, what level and types of support will the County provide? The policy language needs to go into greater depth on how the County will implement it.

Policy COS-1.15: Countywide Tree Planting. The County shall establish and support a countywide target for the County, cities in Ventura County, agencies, organizations, businesses, and citizens to plant two million trees throughout the county by 2040.

CNPS fully supports this policy, with the proviso that no invasive exotic tree species be planted under this policy, and that native (to Ventura County) tree species should be emphasized and prioritized.

Policy COS-2.1: Beach Erosion. The County shall strive to minimize the risk from the damaging effects of coastal wave hazards and beach erosion and reduce the rate of beach erosion.

CNPS supports this policy. However, how it is implemented is important in that some hardscaping actions could harm coastal biological resources. The County needs to take the bigger, longer-term perspective when deciding what beach erosion control projects are planned and approved. Sea level is rising and there is little the County can do to prevent it. Emphasis should be placed on natural processes, which should take priority over manmade structures (which require expensive maintenance). Furthermore, coastal species need to have places to migrate (inland) to as sea level rises; therefore, migration paths must be either created or maintained to accommodate that migration.

Policy COS-2.2: Beach Nourishment. The County shall support activities that trap or add sand through beach nourishment, dune restoration, and other adaptation strategies to enhance or create beaches in areas susceptible to sea-level rise and coastal flooding.

See comments for Policy COS-2.1 above.

Policy COS-2.4: Mining Activities. The County shall require discretionary development for all mining activities in County streams and rivers to incorporate all feasible measures to mitigate beach sand replenishment impacts.

CNPS supports this policy.

O12-4
cont.



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Policy COS-2.5: Shoreline Protective Structure Design. The County shall require all shoreline protective structures which alter natural shoreline processes to be designed to eliminate or mitigate adverse impacts on local shoreline sand supplies.

CNPS supports this policy. See comments for Policy COS-2.1 above.

Policy COS-2.9: Estuarine Protections. The County shall support efforts by other agencies and organizations to maintain and enhance estuarine systems in order to protect and enhance coastal fisheries and other marine resources.

CNPS supports this policy.

Policy COS-2.10: Saltwater Intrusion. The County shall work with Federal, State, and local jurisdictions, agencies, and organizations to monitor saltwater intrusion and take proactive steps to reduce intrusion, including:

- working to maintain and restore coastal wetlands buffers;
- enhancing groundwater management to prevent excessive pumping in order to restore groundwater levels needed to reduce saltwater intrusion; and
- implementing mitigation measures to prevent saltwater intrusion into estuaries and groundwater basins including, but not limited to, implementation of reactive barriers and use of pumps to divert saltwater.

CNPS generally supports this policy.

Policy COS-2.11: Dune Vegetation. Discretionary development which would result in the removal of dune vegetation shall be conditioned to replace the vegetation.

CNPS supports this policy. However, it would be preferable to avoid the impact if at all possible. The policy should reflect that avoidance of impacts to dune vegetation is preferred.

Policy COS 9.3: Open Space Preservation. The County shall place a high priority on preserving open space lands for recreation, habitat protection, wildlife movement, flood hazard management, public safety, water resource protection, and overall community benefit.

CNPS supports this policy.

The following California Environmental Quality Act (CEQA) policy language regarding compensatory mitigation: "When there is no other feasible alternative to avoiding an impact to a wetland habitat, the County shall require the discretionary development to provide restoration and/or replacement habitat as compensatory mitigation such that no overall net loss of wetland habitat results from the development. The restoration and/or replacement habitat shall be 'in kind' (i.e. same type and acreage) and provide wetland habitat of comparable biological value. On-site restoration and/or replacement shall be preferred wherever possible. A habitat restoration and/or replacement plan to describe and implement such compensatory mitigation shall be developed in consultation with all agencies that have jurisdiction over the resource.

Implementation Programs

O12-4
cont.



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- ☐ Program A: Standards for Compact Development. The County shall update the Non-Coastal Zoning Ordinance to include development standards for project design that features compact development adjacent to scenic or sensitive biological resources.

CNPS supports this policy.

- ☐ Program B: Update Initial Study Assessment Guidelines. The County shall update the Initial Study Assessment Guidelines to identify a range of mitigation measures for protected biological resources. This will include updating Section 4, Biological Resources, to include the following California Environmental Quality Act (CEQA) policy language regarding compensatory mitigation: "When there is no other feasible alternative to avoiding an impact to a wetland habitat, the County shall require the discretionary development to provide restoration and/or replacement habitat as compensatory mitigation such that no overall net loss of wetland habitat results from the development. The restoration and/or replacement habitat shall be 'in kind' (i.e. same type and acreage) and provide wetland habitat of comparable biological value. On-site restoration and/or replacement shall be preferred wherever possible. A habitat restoration and/or replacement plan to describe and implement such compensatory mitigation shall be developed in consultation with all agencies that have jurisdiction over the resource.

CNPS supports this policy program.

- ☐ Program C: Update Tree Protection Ordinance. The County shall update existing Tree Protection Regulations in the Non-Coastal Zoning Ordinance to further enhance conservation of our urban forests and the preservation of the County's oak woodland resources. Updates shall include incorporation of Board-adopted recommendations from the Ventura County Oak Woodlands Management Plan (2007), which include tree replacement offsets for ministerial development projects that remove protected trees, revisiting mitigation ratios for tree removal and oak woodland impacts for discretionary development projects. The update shall also evaluate existing protections for invasive, non-native trees and consider the degree to which they provide habitat for a species during critical life stages (e.g., colonial roost sites, breeding sites, etc.). In addition, the evaluation shall also include anticipated effects of climate change on the urban forest environment.

CNPS supports this policy; however, the evaluation for any updates should include Certified Consulting Arborists (particularly those with experience in assessing the functions (not the values) of trees from a habitat/ecological function perspective and Certified Consulting Botanists.

- ☐ Program D: Research Feasibility of Updating Vegetation Maps. In partnership with other natural resource agencies and organizations, the County shall explore the feasibility of updating vegetation maps for unincorporated areas to facilitate the accurate analysis of potential impacts of development on vegetation communities and other sensitive biological resources. If necessary, the County shall develop or modify regulations and development standards to ensure adequate protections for vegetation communities.

There really is no need to "research the feasibility of updating vegetation maps" as there is an ongoing statewide program that CDFW and CNPS have been implementing for over a decade

O12-4
cont.



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now. The goal is to map all the natural vegetation of the state according to The Manual of California Vegetation classification system. Part of the county has already been so mapped, including the entire Ventura River floodplain (by David Magney Environmental Consulting [DMEC] through Aspen Environmental Group as part of the Matilija Dam Removal project), the Santa Monica Mountains (by CNPS and the National Park Service), the Santa Clara River 500-year floodplain (by TNC through the California State Coastal Conservancy), and a portion of the eastern end of the Santa Susana Mountains (by CNPS). In 2006, DMEC cobbled together all the existing (at that time) vegetation maps for VCPD as a starting point. That map, as a GIS database (which was used as the basis for Figure 8-4 Vegetation Communities on Page 8-27 of Appendix B of the DEIR but not fully credited), was intended to be updated with each vegetation mapping effort for each discretionary project submitted to VCPD, but a lack of funding impeded this effort. This policy should instead focus on identifying means to obtain the funding needed to update the vegetation map of the county in one consistent effort.

The County should collaborate with CDFW and federal land management agencies to obtain funding to update and complete the vegetation mapping of Ventura County.

- ☐ Program E: Update Non-Coastal Zoning Ordinance Standards for Vegetation Communities. Based on the results of Implementation Program COS-D, (updated vegetation mapping), the County shall develop or modify regulations and development standards to ensure adequate protections for vegetation mapping, if necessary.

CNPS supports this policy program.

- ☐ Program F: Evaluate Increase to Standard Setback from Wetland. The County shall evaluate whether a standard 200-foot setback from wetlands should apply to development in order to improve water quality, reduce the impacts of flooding and provide adequate protection for sensitive biological resources.

CNPS supports this policy program; however, the use of the appropriate regional HGM model can answer this basic question on a project-by-project basis. Studies have shown that a 300-foot setback buffer is better to protect may wetland and habitat functions, considerably more for some resources/functions (Robins 2002¹). DMEC's assessment of wetland function impacts for a single-family residence in the Ojai Valley that was to be placed within the County's wetland 100-foot setback zone provided an objective assessment of expected project impacts while also identifying specific mitigation measures that could be adopted that would significantly improve wetland functions onsite ([DMEC 2006](#)).

- ☐ Program G: Identification of Critical Habitats. The County shall continue to partner with state and federal agencies to identify those areas of the County that are considered to be

O12-4
cont.

¹ Robins, James D. 2002. Stream Setback Technical Memo. 18 October 2002. Jones & Stokes Associates, Oakland, California. Prepared for Napa County Conservation Development and Planning Department, Napa, California.



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critical habitats of endangered, threatened or rare species as well as for other significant biological resources.

Unfortunately, since politics too often prevents federal and state agency biologists from formally designating what habitat(s) are critical for listed species (it too often gets bumped up to Washington DC where development lobbyists are most powerful and the local experts recommendations are overruled), the County should include NGOs that have expertise with these listed species in the analyses of what habitats are indeed critical for the species continued existence in Ventura County. Those NGOs include CNPS, Audubon Society, The Wildlife Society, and others. For County planning purposes, the VCPD, through collaboration with agency and NGO expert biologists, should determine what area and habitats meet the definition of Critical Habitat rather than Washington or Sacramento political appointees. The County can use existing definitions for sensitive habitats that are already developed, such as Environmentally Sensitive Habitat (ESHA) for the Coastal Zone or Sensitive Ecological Areas (SEAs) in Los Angeles County.

- ☑ Program H: County Tree Planting Program. The County shall plant at least one thousand trees annually on County property.

This is a great policy; however, planting of invasive exotic tree species should be expressly prohibited. The policy should also be more inclusive as "County property" will likely become saturated with trees in a few years. Requiring trees to be included in landscape plans for all new homes and existing homes that request significant changes would increase the number of trees planted each year.

O12-4
cont.

PFS-12 – To protect life and property through the efficient provision of fire prevention, suppression, and rescue services and facilities.

PFS-12.1 Collaboration Amount Partners. The County shall encourage the Fire Protection District to continue to develop relationships with local, state, and federal agencies and non-profit organizations to collaboratively inform and prepare citizens for wildland fires.

CNPS supports this policy and is willing to collaborate with the Fire Protection District.

PFS-12.4 Consistent Fire Protection Standards for New Development. The County, in coordination with local water agencies and the Fire Protection District, shall require new discretionary development to comply with applicable standards for fire flows and fire protection.

Considerable research has been conducted on what measures are most effective in protecting houses from wildfires, and removing natural vegetation more than 100 feet is away is not the solution. Require all new homes and homes being remodeled to incorporate effective measures such as vent screens with 1/16th inch mesh, not allow combustible materials within 3 feet of the home/building, installing rooftop sprinklers that are supported by municipal water supplies or pumped from a well or tank with a battery power backup in case of a power outage.

Planting with local low growing natives, appropriately spaced and maintained is preferable to clearings exotic annual grasses which are prone to fire when dry. Native plants should not be avoided on the assumption of flammability without adequate data and should be encouraged near natural areas. Zone



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appropriate planting around structures, as described in the CNPS Fire Recovery Guide should be practiced around structures. <https://www.cnps.org/give/priority-initiatives/fire-recovery>

Zone 1: Within 0 - 30 feet of your home.

Make this area and your evacuation route "lean, clean, and green."

- Create a 5-foot no-fuel zone around your house to deter fire under the eaves of your home. (Relocate wood piles, garbage cans, mulch, wooden fences, and flammable plant material.)
- Prevent trees and large shrubs from touching each other or hanging over structures. (Cal Fire currently instructs spacing of at least 10 feet.)
- Remove "laddering" plants that can spread a ground fire up to a tree's crowns.
- Remove loose plant debris from gutters, roofs, and other structures.
- Remove dead or dying trees. (Note: Make sure a tree is actually dead. See page 29.)
- Break up continuous, flammable ground cover (e.g., grasses, mulch) with hardscaping and other fire-resistant features.
- Provide good access to water within 30 feet of your home.

Zone 2: Within 30 - 100 feet of your home, reduce fuels.

- Keep your yard clear of trash, natural debris, and dried grasses.
- Mow grasses before 10 a.m. and avoid mowing on hot, windy days.
- Use low-maintenance plants that require low water and pruning.
- Clear dead and diseased plants. (See page 29 for post-fire care of trees.)
- Create both horizontal and vertical spacing between plants. Avoid laddering understory plants; space trees and shrubs at one or two times their mature height.
- Periodically re-open gaps between plants as plants grow closer together.
- Consider expanding this zone up to 300 feet for steep slopes with flammable shrubs.

These guidelines/prescriptions are more appropriate than thick mulch (which can be flammable) and compost.

Coastal Area Plan Policies

☐ Section 30240 Environmentally Sensitive Habitat Areas, Adjacent Developments:

- ☐ ESHA shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- ☐ Development in areas adjacent to ESHA and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

CNPS generally supports these policies; however, additional comments will be provided later.

Oak Park Area Plan

- ☐ Policy 1.3.2.2: Discretionary development shall be located to avoid the loss or damage to healthy mature trees and sensitive plant species, including: Catalina Mariposa Lily, Wind Poppy and Santa Susana Tar Plant ~~Tar Plant~~ Tarplant and other rare or endangered species.

O12-4
cont.



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This policy is good; however, a mechanism needs to be included to determine what a “healthy mature tree” is. The only commonly used tool available to arborists is focused on assessing trees in the landscape setting and emphasizing hazard risk to humans and property, not the biological and habitat functions mature trees have. Furthermore, this policy should be included in all Area Plans, not just the Oak Park Area Plan.

- ▣ Policy 1.3.2.3: Where applicable, developers shall be required to submit an updated Oak Tree Report, covering all oaks located within 50 feet of any proposed grading or construction. Trees, along with identifying number, health and aesthetic grades, shall be shown on the grading plan.

All assessments of trees should be conducted by a Certified Consulting Arborist, such as by the International Society of Arboriculture. All assessments of impacts to special-status plants should be performed by a California Certified Consulting (or Field) Botanist. A “County-approved qualified biologist” is not sufficient for the reasons previously described. This policy should apply to the entire county, and in each Area Plan.

- ▣ Policy 1.3.2.4: All discretionary development shall comply with the oak tree preservation and mitigation requirements of the adopted Oak Park Development Plans.

Agreed.

Ojai Valley Area Plan

- ▣ Policy 1.4.2.7: Discretionary development ~~which that~~ would result in a significant adverse impact to a Locally Important Plant Community shall be required to replace such Locally Important Plant Community proposed for removal on at least a 1:1 basis and will be required to monitor the success of such planting for a minimum of seven years. In lieu of replacement, developers may dedicate without compensation, acreage containing such Locally Important Plant Community to a government agency or non-profit organization (e.g., a homeowners’ association, a land conservancy) provided such entity will provide assurances that the dedicated Locally Important Plant Community acreage will be retained in a permanent undeveloped state. Such dedicated lands shall be at least two times the acreage of the Locally Important Plant Community which is proposed for removal. The form of such dedication may be fee title, conservation easement or other instrument approved by the County.

This policy has some good elements; however, it also has some flaws that need to be corrected. Including a “homeowners’ association” with NGOs that can receive lands for the purposes of mitigating impacts to Locally Important Plant Communities is flawed in that there are very few, if any, homeowners’ associations that have either adequate funds, interest, or expertise to properly manage such property. Some NGOs do, such as land conservancies and some government agencies; however, government agencies, such as the U.S. Forest Service, National Park Service, California Department of Parks and Recreation, to not accept lands with dead restrictions or conservation easements, which are common tools used to protect properties with sensitive resources.

O12-4
cont.



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Lake Sherwood/Hidden Valley Area Plan

- ☐ Policy 2.1.2.8: No blasting shall be permitted from February 15 through June 30 unless a field survey determines that there are no nesting raptors (other than kestrels) within 1/2 mile of the blasting site or unless studies are conducted to the satisfaction of Ventura County which indicate that blasting in an area will have no significant impact on nesting raptors.

CNPS supports this policy.

- ☐ Policy 2.1.2.9: A field survey by a qualified biologist shall be done prior to destruction or modification of any rocky outcrops. Mitigation measures recommended by the survey shall be implemented.

CNPS supports this policy; however, since this habitat type is very special, the field survey and impact assessment should be performed by a California Certified Consulting Botanist, not just a "qualified biologist" for which there is not clear, defined, and consistent set of criteria to determine their qualifications.

O12-4
cont.

The County shall include the following new implementation program in the 2040 General Plan.
Implementation Program COS-X: Protection of Sensitive Biological Resources

The County shall update the Initial Study Assessment Guidelines, Biological Resources Assessment report criteria to evaluate discretionary development that could potentially impact sensitive biological resources with the following:

- ☐ The qualified biologist shall conduct an initial data review to determine the sensitive biological resources (i.e., special-status plant, special-status wildlife, sensitive habitats [e.g., riparian habitat, sensitive plant communities, ESHA, coastal beaches, sand dunes, other sensitive natural communities], wetlands and other non-wetland waters, native wildlife nursery sites, or wildlife corridors) that have the potential to occur within the project footprint. This will include but not be limited to review of the best available, current data including vegetation mapping data, mapping data from the County and California Coastal Commission, and database searches of the CNDDDB and the CNPS Inventory of Rare and Endangered Plants of California.

O12-5

This is a good start; however, there is no mention of searches of databases and checklists for locally rare/locally Important Species as part of this initial assessment. The Initial data review MUST include the potential for presence onsite or adjacent to the project site for locally rare species as well. Two resources are available to identify locally rare and uncommon native plants of Ventura County, the Ventura County Flora website (www.venturaflora.com) and the CNPSCI website (www.cnpsci.org). A search of Calflora online tool (www.calflora.com) will provide all reported occurrences of all native and naturalized plants using its "What Grows Here" tool. A search of the California Consortium of California Herbaria (CCH on the UC Jepson Herbarium website) will provide links to all accessioned and uploaded voucher specimens that have been deposited into a participating herbarium. Magney's Venturaflora.com website provides a checklist of all known native and naturalized vascular known to occur in Ventura County as well



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as numerous local plant checklists. These resources should be part of every botanist's pre-site visit review to maximize detection of special-status plants that may occur on the project site.

- ☐ The qualified biologist shall conduct a reconnaissance-level survey for sensitive biological resources within the project footprint (including proposed access roads, proposed staging areas, and the immediate vicinity surrounding the project footprint) to determine whether sensitive biological resources identified during the initial data review have potential to occur.

CNPS is extremely concerned that this part of the implementation program is flawed as the timing of the reconnaissance survey and the expertise of the "qualified biologist" are absolutely critical to determining the potential for determining whether there is potential for sensitive biological resources present. Many species are simply not detectable for long periods of each year and almost certainly would not be detected during a reconnaissance-level survey. All site botanical surveys should be floristic in nature, and timed to maximize the opportunities to detect the presence of sensitive species.

- ☐ If the reconnaissance-level survey identifies no potential for sensitive biological resources to occur, the applicant will not be subject to additional mitigation measures.

CNPS strongly objects to the element of the implementation program. There are too many instances when even more thorough site surveys have failed to detect sensitive biological resources to simply claim, through a reconnaissance-level survey, that there is no potential for sensitive resources to be present onsite. There are very few circumstances when such a conclusion can be made, and then they should only be made by a Certified Consulting Botanist for botanical resources and a Certified Wildlife Biologist for wildlife resources.

- ☐ If sensitive biological resources are observed or determined to have potential to occur within or adjacent to the project footprint during the reconnaissance-level survey, then the following measures shall apply:

Special-Status Species

- ☐ If special-status species are observed or determined to have potential to occur within or adjacent to the project footprint, a qualified biologist shall conduct focused or protocol-level surveys for these species where established, current protocols are available (e.g., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018], Staff Report on Burrowing Owl Mitigation [CDFG 2012]). If an established protocol is not available for a special-status species, then the qualified biologist will consult with the County, and CDFW or USFWS, to determine the appropriate survey protocol.

CNPS basically supports this step. However, the consulting biologists should be Certified, not just a "qualified biologist".

- ☐ If special-status species are identified during protocol-level surveys, then the County shall require implementation of mitigation measures that fully account for the adversely

O12-5
cont.



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affected resource. When feasible, mitigation measures should adhere to the following priority: avoid impacts, minimize impacts, and compensate for impacts.

CNPS basically supports this step. However, the consulting biologists should be Certified, not just a "qualified biologist".

- ☐ If impacts on special-status species are unavoidable, then the project proponent shall obtain incidental take authorization from USFWS or CDFW (e.g., for species listed under ESA or CESA) prior to commencing development of the project site, apply minimization measures or other conditions required under incidental take authorization, and shall compensate for impacts to special-status species by acquiring or protecting land that provides habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of project implementation; generally at least a 1:1 ratio. Compensation may include purchasing credits from a USFWS- or CDFW-approved mitigation bank or restoring or enhancing habitat within the project site or outside of the project site.

CNPS basically supports this step. However, the consulting biologists should be Certified, not just a "qualified biologist". Avoidance of the impact shall take precedence over other forms of mitigation as translocation of special-status species as mitigation is mostly experimental and what has been done has very low levels of success. For botanical resources, the impact assessment and mitigation plan and measures should be performed by a California Certified Consulting Botanist and by a Certified Wildlife Biologist for wildlife impacts.

These are some of CNPS's comments on the proposed GP update and DEIR; however, additional time is required (and previously requested) to be able to adequately review all the relevant documents and provide substantive and thoughtful comments and suggestions.

Please contact me via email at dmagney@cnps.org or by phone at 916/447-2677 ext. 205 if you have any questions.

Respectfully,

David L. Magney
California Certified Consulting Botanist #0001
ISA Certified Consulting Arborist #WE-7674
Ventura County Qualified Biologist
Rare Plant Program Manager
California Native Plant Society
2701 K Street, Suite 1
Sacramento, CA 95816

O12-5
cont.

O12-6

O12-7

| | |
|-----------------------|-----------------------------------------------------------------------------------------------------------------|
| Letter O12 | California Native Plant Society David L. Magney, CNPS Rare Plant Program Manager February 27, 2020 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------|

O12-1 The description of the commenting agency is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

O12-2 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General Plan.

O12-3 Thresholds of significance are the benchmark against which projects are evaluated to determine whether physical environmental changes that could be reasonably expected to result from project implementation would be “significant” as determined by the lead agency. The thresholds can be qualitative or quantitative, and the determination of significance can vary based upon context.

Public agencies are encouraged to develop and publish thresholds of significance that are used in the determination of the significance of environmental effects (State CEQA Guidelines, § 15064.7(b)). The current Initial Study Assessment Guidelines (ISAG), last amended by the County in April of 2011, set forth the standard threshold criteria and methodology used in determining whether a project could have a significant effect on the environment. The ISAG were originally adopted in 1992 by the directors of those County agencies/departments responsible for evaluating environmental issues and by the County’s Environmental Quality Advisory Committee following a public outreach process that included public notification and workshops, and appropriate revisions. Similarly, all subsequent amendments to the ISAG have included public notification and review prior to their adoption in accordance with State CEQA Guidelines and the County’s Administrative Supplement to State CEQA Guidelines.

For the purpose of evaluating the potential environmental effects of implementing the 2040 General Plan, the thresholds of significance are based on the ISAG, as well as the checklist presented in Appendix G of the State CEQA Guidelines; best available data; and the applicable regulatory standards of the County and federal and state agencies with jurisdiction over the resources at issue. As explained in Section 4.1, “Environmental Impact Analysis,” (page 4-1):

...deviation from the ISAG thresholds, which were established by the County to evaluate the impacts of individual projects, was sometimes necessary to appropriately consider the programmatic nature of a general plan for the entire unincorporated area, and to incorporate the 2019 revisions to the Appendix G checklist.

In each of the resource-specific sections of the draft EIR (Sections 4.1 through 4.17), the “Environmental Impacts and Mitigation Measures” subsection identifies the thresholds used to determine the level of significance of the environmental impacts for the resource topic, in accordance with State CEQA Guidelines Section 15126. These thresholds appropriately set the parameters for what is evaluated in the EIR.

The commenter also states that the term “substantially” used in the thresholds of significance are ambiguous and that the use of actual numbers would be more useful for determining impacts. The CEQA and ISAG thresholds are designed to apply to as many situations as possible. An action may result in a “substantial” effect on a biological resource with an extremely limited range or small population size whereas the same project may not result in a “substantial” effect on a resource with a wider distribution or larger population size. Therefore, applying a numeric value to a “substantial” effect may not be appropriate for every project. These nuances would be considered and the determination of whether a biological resource would be “substantially” affected would be made by a qualified biologist at the project level. The biologist at the development project-specific level would take into account the rarity of the resource, the nature of the project, and other project-level details as required under the ISAG.

O12-4 The comment provides suggested edits to policies proposed in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General Plan.

O12-5 This comment includes several recommendations for additions to Implementation Program COS-X: Protection of Sensitive Biological Resources (Mitigation Measure BIO-1).

The first recommendation is that databases and checklists for locally rare/Locally Important Species should be included in the initial data review required under Mitigation Measure BIO-1 (New Implementation Program COS-X: Protection of Sensitive Biological Resources). Impact 4.4-1 of the draft EIR on pages 4.4-20 through 4.4-25 includes a definition of special-status species, and explicitly states that Locally Important Plant species are included within this definition:

In addition to those species, CEQA requires analysis of Ventura County’s list of Locally Important Plant and Animal species, which, as of 2017, includes 286 plant species and 13 wildlife species and are included in the Background Report (Appendix B).

However, Mitigation Measure BIO-1 does not reference the Locally Important Species databases mentioned by the commenter. The text of Mitigation Measure BIO-1 has been edited to add these requirements to query these databases, as shown below.

The commenter also expressed concern about the qualifications of the “qualified biologist” referred to in Mitigation Measure BIO-1. The commenter recommends that the qualified biologist should be a “Certified Consulting Botanist” or a “Certified Wildlife Biologist.” Certification of botanists or wildlife biologists is not a typical requirement for a qualified biologist and is not regulated by the resource agencies (e.g., California Department of Fish and Wildlife [CDFW], U.S. Fish and Wildlife Service [USFWS]). For example, many botanists or wildlife biologists have the appropriate qualifications (e.g., education, experience, expertise) to conduct reconnaissance-level, focused, or protocol-level surveys may not also be certified biologists. The text of Mitigation Measure BIO-1 has been edited to add a more specific definition of a qualified biologist, including a reference to the minimum qualifications for biological consultants listed in Attachment 1 to the County of Ventura ISAG, as shown below.

The commenter objects to the use of reconnaissance-level surveys to determine which sensitive biological resources may be present on a project site. The commenter recommends that all botanical surveys should be floristic in nature and timed to maximize detection of plant species. The use of reconnaissance-level surveys to determine the habitat present within a project site, determine the likelihood of occurrence of sensitive resources, and rule out species due to the lack of suitable habitat is the industry standard. If special-status plant surveys are determined to be necessary after the reconnaissance-level survey, these focused surveys will follow CDFW guidelines, as described in Mitigation Measure BIO-1:

... (e.g., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018]...

These guidelines require floristic surveys and surveys conducted during the appropriate bloom period to detect plant species. This issue is addressed in the draft EIR, and further response is not required.

Refer to response to comment A3-5 for the full text of revised Mitigation Measure BIO-1, which addresses the issues raised by this comment.

- O12-6 The draft EIR was available for a 45-day review period from January 13, 2020, to February 27, 2020, in compliance with CEQA (Public Resources Code Section 21091). The commenter’s request for extension of the comment period has been noted. No extension of the comment period was granted.
- O12-7 The comment provides the preferred contact for the organization. The County has noted the information appropriately for future reference.

ALSTON & BIRD

333 South Hope Street, 16th Floor
Los Angeles, CA 90071-1410
213-576-1000 | Fax: 213-576-1100

Letter
O13

VIA ELECTRONIC MAIL AND UPS

February 26, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Re: Comments on Ventura County 2040 General Plan Draft Environmental Report
(State Clearinghouse No. #2019011026)

Dear Ms. Curtis,

California Resources Corporation joins in the comments submitted by Western States Petroleum Association on the Draft Environmental Impact Report for the Ventura County 2040 General Plan ("DEIR"). CRC requests that the DEIR be significantly revised and recirculated, as required by the California Environmental Quality Act, to address the deficiencies raised by these comments.

O13-1

Sincerely,

Matthew C. Wickersham

Alston & Bird LLP

www.alston.com

LEGAL PROFESSIONAL

| | |
|-----------------------|------------------------------------------------------------------------|
| Letter O13 | Alston & Bird Matthew C. Wickersham February 26, 2020 |
|-----------------------|------------------------------------------------------------------------|

O13-1 The commenter refers to letters submitted by Western States Petroleum Association. See responses to Letter O37. Regarding the comment that the draft EIR should be recirculated, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

**Letter
O14**

To Whom it May Concern,

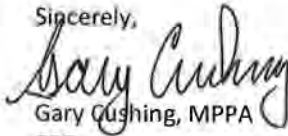
The Camarillo Chamber of Commerce appreciates the efforts that Ventura County puts forth to support the community and make the county a better place to live.

We are always looking for changes in the best interest for businesses in Camarillo. Because of this, there are some changes and additions that should be made to the DEIR. First off, the document is incomplete and lacks support to many of the decisions made on policy changes.

As an association of many businesses and organizations within Ventura County, we are writing to you because we have many worries with the Draft EIR that we find alarming. It would be beneficial to complete the housing element of the document prior to pushing out the EIR as that is a main concern for many citizens in Camarillo and Ventura County. The project description lacks many important details and sections are incomplete. The regional economy is struggling which effects our community members and the policy changes within the document are only making this worse. Ventura County is experiencing a housing crisis due to the economical declines and we need to create beneficial change to continue to support our community.

Thank you for allowing us to express our concerns and for being in support of the comfort and safety of the members of our county. Please complete the unfinished areas of the document and focus on the key points that will benefit our economy.

Sincerely,



Gary Cushing, MPPA
CEO
Chamber of Commerce

O14-1

| | |
|-----------------------|--------------------------------------------------------------------------------------|
| Letter O14 | Camarillo Chamber of Commerce Gary Cushing, MPPA, CEO February 27, 2020 |
|-----------------------|--------------------------------------------------------------------------------------|

O14-1 This comment regarding the adequacy of the draft EIR is noted. Refer to Master Response MR-2 for discussion of the adequacy of the draft EIR project description. Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.



Writer's E-mail:
nmaguire@fcoplw.com

Reply to:
Ventura Office

February 26, 2020

Via Email

Ventura County RMA, Planning Division
Attn: Susan Curtis, Manager
General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
Email: GeneralPlanUpdate@ventura.org
susan.curtis@ventura.org

Re: *Draft Programmatic Environmental Impact Report for the Ventura County 2040 General Plan*

Dear Ms. Curtis:

Please find below our preliminary comments regarding the Draft Environmental Impact Report (DEIR) for the Ventura County 2040 General Plan (General Plan). These comments primarily focus on fundamental or pervasive deficiencies that require substantial revisions to the DEIR. Please also find enclosed additional comments from Carbon California Company's technical staff.

O15-1

Environmental Setting Discussion: Because it is so fundamentally contrary to the informational purposes of CEQA, we anticipate that many commenters will request that the DEIR incorporate the discussion of the project's existing environmental setting into the DEIR itself instead of the current DEIR approach of relying on cross-references to the voluminous

O15-2

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Appendix B. It is clear that CEQA does not countenance the DEIR’s lethargic approach regarding the project’s environmental setting. “A number of courts have noted as a general principle that readers should not be forced to sift through appendixes to detect the EIR’s environmental analysis.” (Kostka & Zischke, Practice Under the California Environmental Quality Act (2d ed Cal CEB) §11.22.)

O15-2
cont.

CEQA contemplates that appendixes will be utilized for “highly technical and specialized analysis and data” (CEQA Guidelines, § 15147), but not for central information like the discussion of a project’s environmental setting, which typically forms the baseline by which a project’s impacts are measured. (CEQA Guidelines, § 15125(a).) CEQA identifies one limited circumstance where an EIR may incorporate by reference an environmental setting description. (CEQA Guidelines, § 15150(e)(1).) Appendix B does not fall into that exception.

Effect of New Land Use Designations: Table 2-1 provides the maximum density/intensity, minimum lot size, and maximum lot coverage requirements for the General Plan’s proposed land use designations. The DEIR notes that some designations retain their previous requirements. The DEIR (p. 2-6) also notes that other designations incorporate requirements from “compatible zoning designation[s].” It is not clear from the existing discussion in the DEIR how that type of incorporation will impact the maximum density/intensity, minimum lot size, and maximum lot coverage requirements for properties within the General Plan area. Please identify – with at least sufficient specificity to analyze the potential environmental impact of such modifications – which properties will see modifications to their maximum density/intensity, minimum lot size, and maximum lot coverage requirements.

O15-3

General Plan Area as Scope of CEQA Review: In several sections of the DEIR, the DEIR limits its analysis of the General Plan’s direct and indirect impacts to only the General Plan area (note that this issue is distinct from DEIR Table 5-3’s identification of the scope of cumulative impact analyses¹). For example, at page 4.12-21 of the DEIR, the DEIR concludes that the General Plan,

would contribute to a reduction of new oil and gas production in the unincorporated county, and to the extent the new oil and gas that would have been produced in the unincorporated area would also have been consumed in California, the demand for California-produced oil and gas would be satisfied through the importation of additional oil and gas from other countries and Alaska, which in turn could have indirect environmental impacts such as those

O15-4

¹ With that said, the abbreviated parenthetical explanations provided for the scope of the cumulative impacts analyses in Table 5-3 are inadequate under CEQA Guidelines section 15130(b)(3).

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associated with transporting the oil and gas from outside of Ventura County.

Even though the DEIR concludes that the General Plan could potentially adversely impact the environment, the DEIR declines to analyze those impacts because “[s]uch impacts, however, would largely occur outside the 2040 General Plan project area.”

It is fundamental under CEQA that an EIR may not artificially constrain its analysis of direct or indirect impacts based on a project area or an agency’s jurisdictional boundaries. (See *Muzzy Ranch Co. v. Solano County Airport Land Use Com.* (2007) 41 Cal.4th 372, 387; *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1582–1583; *Napa Citizens for Honest Gov’t v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 369.) While the geographic proximity of an impact may affect the level of specificity required for an EIR’s analysis of an impact, “the purpose of CEQA would be undermined if the appropriate governmental agencies went forward without an awareness of the effects a project will have on areas outside of the boundaries of the project area.” (*Napa Citizens, supra*, 91 Cal.App.4th at p. 369.)

O15-4
cont.

County Sanitation Dist. No. 2 v. County of Kern guides the DEIR’s obligations here. In that case, a County of Kern ordinance prohibited “the application of sewage sludge on land located within the jurisdiction of Kern County.” The sanitation district noted that, as a result of the ordinance, it would have to haul biosolids by truck to a neighboring county and even Arizona. Such hauling would have its own significant, adverse environmental impact arising from increased vehicle emissions. That indirect impact still needed to be analyzed, and mitigated, by the County of Kern, even though it occurred outside the county’s boundary.

Here, the DEIR must analyze the impacts associated with “the importation of additional oil and gas from other countries and Alaska.” The DEIR must also analyze all other impacts that were artificially discounted because they “would largely occur outside the 2040 General Plan project area.”

Project Build-Out Information: Currently, the DEIR typically does not provide, in its impact analyses sections, an adequate level of detail regarding the likely distribution of future development under the General Plan. Although the DEIR is programmatic in nature, “The principle that EIRs can and should make reasonable forecasts is well established in case law.” (*Kostka & Zichke, supra*, § 11.32.) “Predicting the physical changes a project will bring about is an inescapable part of CEQA analysis.” (*County Sanitation Dist. No. 2, supra*, 127 Cal.App.4th at p. 1586; *Planning & Conservation League v. Dept. of Water Resources* (2000) 83 Cal.App.4th 892, 919.) A “lead agency cannot defer its analysis of any significant effect of the general plan to later-tiered EIRs.” (Governor’s Office of Planning and Research, General Plan Guidelines

O15-5

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(2017), p. 271 [citing *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182].²)

Applying those principles here, the DEIR must provide substantially more information regarding the projected build-out under the General Plan, including, with much more specificity, the probable location of the projected development. In *Napa Citizens, supra*, 91 Cal.App.4th at p. 370, the Court of Appeal dealt with a similar lack of information and determined that an EIR for a 3,000-acre specific plan must, “in order to fulfill its purpose as an informational document ... identify the number and type of housing units that persons working within the Project area can be anticipated to require, and identify the probable location of those units.”

O15-5
cont.

Despite this obligation, the DEIR typically avoids identifying with any specificity the projected buildout under the General Plan. This is true even for the forecasted development within the 1.2 percent of the County that is comprised of residential, commercial, mixed use, and industrial land uses. That is, the DEIR does not identify how future growth will be distributed among the many areas designated as Existing Community or Urban. The DEIR should identify the Existing Communities and Urban areas and provide a discussion of the potential for, and likelihood of, future development in each. It is not appropriate to generalize, as the DEIR does, diverse areas such as Lake Sherwood, Nyeland Acres, the Ojai Valley, Saticoy, Faria Beach, the Lockwood Valley, and Piru.

The DEIR also avoids identifying projected buildout under the General Plan even though, for the purpose of analyzing transportation and traffic impacts, County staff developed the 2040 Ventura County General Plan Land Use Model to “reflect[] the land use growth assumptions in the proposed Ventura County 2040 General Plan for the unincorporated areas.” (DEIR Appendix F, p. F-2.) Yet, the DEIR does not describe these growth assumptions nor does it utilize those projections throughout the DEIR. Instead, the DEIR is left to state, over and over again, that “[b]ecause of the programmatic nature of the 2040 General Plan, a precise, project-level analysis of the specific effects of future development on special-status species is not possible at this time.” This approach is inadequate even for a programmatic analysis of a general plan.

O15-6

What is more, instead of adopting consistent land use growth assumptions and utilizing them throughout the DEIR, the DEIR actually intentionally misleads the public as to the probable location of future development. For example, as noted at page 3-1 of the DEIR, the Los Padres National Forest and certain adjacent private property (presumably the Lockwood Valley) comprise 574,000 acres and 47 percent of the County’s acreage. (At the outset, please specify the private acreage included in these figures.) Notably, the DEIR designates the Los Padres National Forest as Open Space rather than State, Federal, Other Public Lands despite the fact that the

O15-7

² Chapter 10, CEQA, of the General Plan Guidelines may be located at: http://opr.ca.gov/docs/OPR_C10_final.pdf.

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latter specifically “applies to state-and federally-owned parks, forests, rangelands, coastal resources, and/or recreation areas.”

This is not just an issue of labeling. By recharacterizing the Los Padres National Forest as Open Space, the DEIR misleads the public as to what portions of the County can accommodate future development. This sleight of hand in turn allows the DEIR to imply that future development will be widely dispersed throughout the County. For example, in discussing the General Plan’s growth projections, the DEIR (pp. 2-11, 3-20) states that 56 percent of the “forecast residential development would be spread throughout the approximately 98 percent of the County’s unincorporated areas in agriculture, open space, and rural land use designations.”

As an initial matter, note that CEQA does not allow a project’s impacts to be minimized in this fashion. (See *Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 121.) By purporting to disperse the future development and isolating that development’s impacts, the DEIR “runs counter to the combined approach that CEQA cumulative impact law requires.”

Just as importantly, the DEIR’s approach obfuscates the likely location, and impacts, of future development. As noted above, the DEIR includes in its open space area the 574,000-acre Los Padres National Forest. However, even the DEIR (p. 5-6) recognizes elsewhere, “Forest lands, specifically the Los Padres National Forest, are also present in Ventura County; however, forestry resources are concentrated in the national forest, which is protected from future development.” Consequently, forecast residential development will be more concentrated outside of the Los Padres National Forest.

The DEIR’s sleight of hand is also made possible because the DEIR does not analyze the General Plan’s consistency with the Los Padres National Forest Land Management Plan, which may be found at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5337817.pdf and is hereby incorporated by reference. This omission is particularly glaring because DEIR Appendix B (p. 3-108) specifically acknowledges the Los Padres National Forest Land Management Plan as one of several “plans, policies, and regulations of other agencies that affect growth and development within Ventura County.” Please include an analysis of the General Plan’s consistency with the Los Padres National Forest Land Management Plan, especially if the DEIR maintains the fiction that material development may occur in the National Forest.

Regional Plan Consistency: The DEIR, in its analysis under Impact 4.11-3 (Cause an Environmental Impact Due To A Conflict With A Regional Plan, Policy, or Program), considers the General Plan’s consistency with certain regional plans and programs. The DEIR’s discussion of these plans is already outdated. The DEIR concludes that the General Plan is consistent with SCAG’s 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy. In 2019, SCAG released for public review the Draft Connect SoCal plan, the 2020-2045 Regional Transportation Plan and Sustainable Communities Strategy. SCAG expects to consider adoption

O15-7
cont.

O15-8

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of the final plan in April.³ The DEIR should incorporate updated information in the 2020-2045 RTP/SCS and analyze the General Plan’s consistency with the 2020-2045 RTP/SCS.

O15-8
cont.

The DEIR also purports to analyze the General Plan’s consistency with the Regional Housing Needs Assessment (RHNA) program. Putting aside for now the improper deferral of the General Plan’s housing element and the DEIR’s failure to consider the 2020 RHNA updates, the DEIR’s land use consistency analysis concludes in a conclusory fashion and without substantial evidence that implementation of the General Plan is consistent with the RHNA. The DEIR does not even discuss or analyze the County’s consistency with the 5th cycle RHNA allocations. Please include a discussion regarding whether the County is expected to achieve its target of 1,015 new dwelling units (in the specified income categories) by October 2021.

O15-9

Also, in its discussion of the 6th cycle RHNA allocations, the DEIR states, “As part of this process, SCAG will work with the County and the cities within the county to develop a methodology to distribute the RHNA as determined by HCD.” Please update the DEIR to reflect that HCD has approved SCAG’s allocation distribution methodology.⁴ The DEIR should also analyze whether the General Plan and its assumptions are consistent with that methodology.

Foreseeable Pipeline Impacts: Section 4.12 of the DEIR purports to analyze the General Plan’s impacts on mineral and petroleum resources. In discussing Impact 4.12-4, the DEIR acknowledges that the General Plan will likely require pipelines to be “constructed to meet the requirements in Policies COS-7.7 and COS-7.8.” The DEIR states at page 4.12-31 that the “programmatic effects” of new oil, gas, or produced water “are included in the environmental impact analyses of this draft EIR.” Please provide cross-references to each such discussion in the DEIR.

However, we also note that the programmatic analyses appear to be illusory for similar reasons as those discussed above with regard to General Plan build-out. DEIR Section 4.4 (biological resources) is illustrative. Section 4.4 recognizes that “[p]roposed policies of the 2040 General Plan addressing flaring and trucking associated with new discretionary oil and gas wells could result in the construction and operation of new pipelines for the conveyance of oil, gas, or produced water.” Section 4.4 then states, “Because of the programmatic nature of the 2040 General Plan, a precise, project-level analysis of the specific effects of future development on special-status species is not possible at this time.” The DEIR then repeats its cut-and-paste discussion of the Existing Community and Urban areas and notes that “future development,” not just pipelines, “could occur in the vicinity of rivers, creeks, and drainages (e.g., Santa Clara

O15-10

³ See: <https://www.connectsocial.org/Pages/details.aspx?list=Announcements&lid=35>.

⁴ See: <http://www.scag.ca.gov/programs/Documents/RHNA/HCD-Review-RC-Approved-Draft-RHNA-Methodology.pdf>.

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River, Ventura River, and tributaries) may be within suitable habitat for” certain identified species.

O15-10
cont.

The DEIR identifies in Figure 4.12-3 the General Plan’s land use designations that allow oil and gas production. The DEIR identifies on several maps the oil fields within the County. The DEIR identifies on several maps the location of oil and gas wells. The DEIR identifies in Figure 4.12-4 the major oil transmission pipelines in the County. The DEIR identifies in Figure 4.12-5 the major gas transmission pipelines in the County. Albeit based on numerous assumptions, the County identifies in Section 4.12 which wells are likely to be able to feasibly connect to a major transmission line. However, despite having all of this information, the DEIR does not continue to connect the dots to identify the reasonably foreseeable location of future pipelines. The DEIR must do so, and it must analyze the potential environmental impacts of those foreseeable physical changes arising from the General Plan.

O15-11

Lastly with regard to Impact 4.12-4, the DEIR spends much of its time analyzing the feasibility of General Plan Policies COS-7.7 and COS-7.8. It does not appear, though, that the DEIR’s feasibility analysis considers the capacity of existing transmission pipelines to accommodate the additional quantities that would be generated by General Plan Policies COS-7.7 and COS-7.8. The DEIR must consider that potential constraint, as it also affects the analysis in the DEIR regarding the General Plan’s potential impacts on the loss of availability of petroleum and mineral resources.

O15-12

State Review Period: As the County is aware, it sent the DEIR to the State Clearinghouse for distribution to the State agencies for review and comment. The Clearinghouse indicates that the review period is January 13th to February 26th. Under Public Resources Code section 21091(c)(2), January 13th may be included as the first day of the 45-day review period so long as the Clearinghouse distributed the DEIR to the State agencies on that day. Unfortunately, the Clearinghouse did not actually distribute the DEIR on January 13th. As the County is aware, CEQA’s procedural requirements must be adhered to strictly. Consequently, the County should recirculate the DEIR for an actual 45-day review period through the Clearinghouse.

O15-13

We appreciate the opportunity to provide these and we look forward to seeing them addressed to ensure that the potential environmental impacts of the 2040 General Plan are properly analyzed in the DEIR, which will assist in streamlining future projects within the County. Please include me on all future noticing for the DEIR or the General Plan itself.

O15-14

Sincerely,
Neal Maguire

NPM/tm
Attachment

**Carbon California’s Comments Regarding
Ventura County’s Draft Environmental Impact Report
2040 General Plan**

| Chapter | Section | Page | Comment | |
|----------------------|-------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1. Introduction | 1.4 Lead, Responsible, and Trustee Agencies | 1-5 | Because the DEIR incorporates the Los Padres National Forest into the designated Open Space areas and then analyzes that Open Space area as a whole, the BLM or USFS should be identified in this section and their authority over the National Forest should be discussed. The County must also ensure that it has satisfied any consultation obligations with federal agencies overseeing the Los Padres National Forest. (CEQA Guidelines, § 15086(a)(3), 15375.) | O15-15 |
| 2. Executive Summary | 2.2.5 Structure and Content of the General Plan | 2-8 | Section 65560 of the Government Code, referenced in the <i>Open Space</i> land use description of Table 2-2, defines “Open-space land” as “any parcel or area of land or water that is devoted to an open-space use as defined in this section, and that is designated on a local, regional, or state open-space plan.” Because this definition does not include federal land/forests, the Los Padres National Forest should be calculated under the “State, Federal, Other Public Lands” land use designation. | O15-16 |
| 2. Executive Summary | 2.2.5 Structure and Content of the General Plan | 2-8 2-10 | The acreage provided in Table 2-2 for “State, Federal, Other Public Lands” is 8,085 acres (< 1% of total county acreage). However, the Los Padres National Forest is approximately half of the acreage within the County. The land use description on page 2-10 states, “This designation applies to state- and federally-owned parks, forests, rangelands, coastal resources, and/or recreation areas”. The acreage from the Los Padres National Forest should be included under this land use designation. | |

**Carbon California’s Comments Regarding
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| 2. Executive Summary | 2.2.5 Structure and Content of the General Plan | 2-40 | A table/list of <u>ALL</u> General Plan updates/policies should be provided in the executive summary. Table 2-4 is a list of impacts and policy mitigation measures and is misleading to the public in that it appears to discuss the overall General Plan policies. Having a matrix of all proposed policies indicating impacts to relevant issue areas would provide clarity on the intentions of the General Plan updates. | |
| 3. Project Description | 3.4 Structure and Content of the General Plan | 3-12 | Within the <i>Economic Vitality Element</i> section on page 3-12, it states “[g]oals, policies, and implementation programs in this element pertain to business and employment; creating a diversified economy and fostering strong economic foundations by facilitating the retention, expansion, and attraction of key industries and businesses...” To satisfy, among other items, its requirement to analyze land use consistency, these key industries should be defined in the DEIR by providing a list and analysis of their economic significance in the county and impacts the General Plan updates may impose. | O15-17 |
| 4.3. Air Quality | 4.3.2 Environmental Impacts and Mitigation Measures | 4.3-8 4.3-10 | General Plan Policy COS 7.4 states, “The county shall require discretionary development permits for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible, to reduce air pollution and greenhouse gas emissions from internal combustion engines and equipment.” Policy AG-5.2 states, “The county shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.” | O15-18 |

**Carbon California's Comments Regarding
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| | | | The language between these two policies should not differ if they intend to achieve the same goal and project objective, especially if the DEIR is going to identify GHG emissions impacts as significant and unavoidable. | O15-18 cont. |
| 4.3 Air Quality | 4.3.2 Environmental Impacts and Mitigation Measures | 4.3-11 | Implementation Program J referenced on page 4.3-11, states that "[t]he County shall coordinate with the VCAPCD to develop a program to identify funding sources or develop financial or regulatory incentives to encourage the switch to electric or alternatively fueled agricultural equipment, when feasible". Oil and gas operations should be included in this funding program if they are "required" to use electrically-powered equipment. Alternatively, an implement program, similarly to the one outlined in Implementation Program J, should be integrated into the General Plan to help "encourage and support" the transition to electric/renewable powered equipment for oil and gas operations. | O15-19 |
| 4.3 Air Quality | 4.3.2 Environmental Impacts and Mitigation Measures | 4.3-21 4.3-22 | The section regarding <i>Operational Emissions</i> referenced the existing setback requirements for oil and gas wells in the Non-Coastal and Coastal Zoning Ordinances. Currently, the 500-foot setback requirement can be waived by occupants of the sensitive uses. With Policy COS-7.1, can the 1,500-foot setback requirement be waived by occupants? This should be clarified in the analysis. | |
| 4.6 Energy | 4.6.2 Environmental Impacts and Mitigation Measures Table 4.6-2 | 4.6-20 | The document states that trends in natural gas consumption within Ventura County are assumed to increase (Table 4.6-2). <i>Implementation Program M: Oil and Gas Tax</i> does not align with the General Plan's objective to "...promote efficiency and economic vitality" regarding <i>Public Facilities, Services, and Infrastructure</i> . | O15-20 |

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| | | | This needs to be analyzed with a plan on how the County intends to supply these demands with renewable energy sources. | O15-20 cont. |
| 4.8 Greenhouse Gas Emissions | 4.8.2 Environmental Impacts and Mitigation Measures | 4.8-47 | Page 4.8-47 states, the adoption of a reach code is predicated on approval of a cost-effectiveness study by the CEC. This study should have been conducted prior to the release of the DEIR. This study would be supplemental to this EIR to effectively analyze the social and economic impacts regarding various issue areas throughout the report. For example, will the implementation of new building standards adversely affect the availability of affordable housing? Policies that rely on the approval of this study should be removed from the General Plan updates. | O15-21 |
| 4.12 Mineral and Petroleum Resources | 4.12.2 Environmental Impacts and Mitigation Measures | 4.12-13 | The public health study referenced regarding Impact 4.12-3 on page 4.12-13 is from a study conducted in Maryland, where environmental regulations and the overall geographical setting differs greatly. The DEIR contains no substantial evidence as to why this Maryland study is transferable to Ventura County. A localized analysis of the actual exposures and subsequent health impacts of the oil and gas facilities in the Ventura Basin should be required before the county implements a specific set-back requirement. | O15-22 |
| 4.12 Mineral and Petroleum Resources | 4.12.2 Environmental Impacts and Mitigation Measures Figure 4.12-1 & 4.12-2 | 4.12-15 4.12-16 | The scale of the maps identified in Figure 4.12-1 and 4.12-2 make it difficult to see the scope of wells affected by the setback requirements. Multiple maps should be included in this section displaying a more accurate scale so that the maps are useful to the public to properly see | O15-23 |

**Carbon California's Comments Regarding
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2040 General Plan**

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| | | | the scale of impact. Additionally, a table should be provided identifying the number of wells affected by this policy. | |
| 4.12 Mineral and Petroleum Resources | 4.12.2 Environmental Impacts and Mitigation Measures Figure 4.12-1 | 4.12-15 4.12-18 | Subparagraph titled "Significance after Mitigation" on page 4.12-18 states, "NCZO defines schools as educational facilities for pre-college levels of instruction; specifically limited to elementary, middle school and high schools offering full curricula as required by State Law." Colleges, such as Thomas Aquinas College, do not meet this definition but are identified in the map provided in Figure 4.12-1. These Colleges should be removed from the analysis of the maps as they do not apply to this definition of a school. | O15-23 cont. |
| 4.12 Mineral and Petroleum Resources | 4.12.2 Environmental Impacts and Mitigation Measures | 4.12-21 | The fourth paragraph of page 4.12-21 acknowledges that there will be indirect environmental impacts from transporting oil and gas from outside of Ventura County. An in-depth analysis of this should be included in impact analyses sections and in the Cumulative Impacts section of the document. Despite being outside the project plan area, which does not alleviate an EIR's burden to consider a project's impacts, this also does not coincide with the objectives of the project, and the requirements under CEQA, to "mitigate impacts of climate change". | O15-24 |
| 4.17 Utilities | 4.17.1 Background Report Setting Updates | 4.17-1 4.17-2 | A table should be provided in this section showcasing the percent of Net MW Reported by fuel type that supports the County of Ventura's various energy demands. In addition to this, an analysis of the feasible projected Net MW that can be supplied by renewable energy sources should be provided. | O15-25 |

**Carbon California's Comments Regarding
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| | | | Based on the Table 7-8 on page 7-48 of the Background Report, 99% of the total Net MW Reported at Operational Power Facilities in Ventura County in 2016 were fueled by Gas. The projected timeline and plan to decrease gas fueled energy resources at these facilities should be provided in the analysis. This was not addressed nor was it properly analyzed in the Utilities section of the DEIR. | |
| 4.17 Utilities | 4.17.2 Environmental Impacts and Mitigation Measures | 4.17-10 4.17-11 | The policies relating to oil and gas production facilities should be included in this section. Oil and gas production facilities meet the definition of a "utility facility" and the impacts associated with these facilities need to be analyzed. Impact 4.17-1 should be potentially significant and mitigation measures need to be analyzed and provided. | O15-25 cont. |

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| Letter O15 | Carbon California Company Neal Maguire February 26, 2020 |
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- O15-1 This comment is introductory in nature and does not raise a significant environmental issue for which a response is required. Refer to responses to comments O15-2 through O15-25, below, for responses to the specific comments and concerns raised in this letter, including those provided by the commenter’s technical staff.

- O15-2 Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.

- O15-3 The comment references the brief summary of the project provided in Chapter 2, “Executive Summary,” of the draft EIR. For further detail, the commenter is referred to Chapter 3, “Project Description.” As stated on page 3-4 of the draft EIR, “[t]he 2040 General Plan land use designations would be consistent with land uses and densities/intensities allowed under the current (2018) zoning designations for each affected parcel.” Refer to Master Response MR-2 for discussion of the adequacy of the draft EIR project description.

- O15-4 Refer to Master Response MR-4, Section MR-4.K, “Effects Outside the Study Area,” regarding the effects of the 2040 General Plan and increased importation of oil.

- O15-5 Refer to Master Response MR-2 for an explanation of the growth forecast assumptions and buildout assumptions used in the draft EIR. The anticipated physical changes of implementing the land use plan are identified in the draft EIR; analysis is not deferred.

While the County acknowledges that the existing communities are diverse, the requirements of the County’s land use designations are consistent, and the analysis is objective. It would be inappropriate to speculate about the preferences of future home builders and assume a disproportionate allocation of housing. Refer to Section 4.14, “Population and Housing,” in the draft EIR for a discussion of the potential for the 2040 General Plan to induce substantial population growth or generate demand for new housing that exceeds the County’s inventory of appropriately designated land.

The 2040 General Plan directs urban development to existing unincorporated communities. As explained on page 4.14-8 of the draft EIR, modest growth (0.4 percent annually) “would be expected to occur without implementation of the 2040 General Plan. The philosophy of the 2040 General Plan is that the County would be prepared and able to accommodate projected growth, while adhering to policies that define where and how development would occur.” As indicated on page 4.14-9 “the physical environmental impacts associated with the growth that

would be accommodated by the 2040 General Plan have been analyzed and disclosed throughout Chapter 4 of this draft EIR.”

- O15-6 Refer to Master Response MR-2 for an explanation of the growth projections and buildout assumptions used in the draft EIR, including their relationship to the 2040 Ventura County General Plan Land Use Model discussed in Appendix F of the draft EIR (page F-2). Also refer to response to comment O5-6 for a discussion of the significant and unavoidable impacts identified in the draft EIR.

The 2040 General Plan provides a regulatory framework for the County when considering future discretionary development. That framework is applied to all lands within the County. It is not possible for the County to anticipate every possible environmental effect of all discretionary development that could be initiated by project proponents over the more than 20-year plan horizon. Rather, under CEQA, lead agencies must be informed of the potential impacts that could occur based on the information known at the time of preparation of the environmental document. The draft EIR explains in detail that the analysis is based on the program of policies and implementation actions presented in the 2040 General Plan. It applies those policies to all lands within the county, and it identifies the range of potential impacts that could occur. The County has, in good faith, evaluated the anticipated effects of typical development based on the growth projections and buildout assumptions and provided all appropriate and feasible mitigation. The commenter offers no evidence to the contrary.

In some cases, such as the potential effects on special-status species noted in the comment, the County concluded that significant impacts could remain for some future projects depending on the individual facts associated with those projects. CEQA does not require the County to speculate about the details of specific impacts that may vary depending upon project type, size, or location. Rather, in accordance with CEQA, the draft EIR provides the overall program of environmental effects and, where impacts would occur, provides mitigation standards that should be implemented and measured for compliance. Given the programmatic nature of this EIR, the County has conducted a good faith effort at full disclosure, providing decision-makers with a sufficiently detailed document to consider the environmental consequences of adopting the 2040 General Plan.

- O15-7 Refer to Master Response MR-2 for an explanation of the project description, growth forecast assumptions, and buildout assumptions used in the draft EIR.

As explained in Chapter 3, “Project Description,” (page 3-20) of the draft EIR, the County is expected to experience a low rate of population growth over the more than 20-year plan horizon; there are 1,281 additional households forecast in the unincorporated areas of Ventura County between 2015 and 2040. Approximately half of these households would be constructed in areas designated for residential, industrial, and mixed land uses. Together, these areas comprise approximately 1 percent of the unincorporated county. The remainder of the development is anticipated to occur throughout the County on lands under other designations. This discussion indicates that 98 percent of the county’s unincorporated area is designated agricultural, open space, and rural.

The commenter notes that the Los Padres National Forest, in which development under the 2040 General Plan would not occur, covers most of the northern half of the County. As a result, the growth would be concentrated in the southern portion of the County. This development pattern is assumed throughout the draft EIR. As explained in the “Approach to Environmental Analysis” (page 4-2 of the draft EIR):

The County...lacks land use authority within incorporated cities and land owned or managed by the state or federal government, such as Los Padres National Forest (which is located in the northern portion of the county and accounts for approximately 574,000 acres, or 47 percent of the county’s total land area)...The unincorporated area within the southern portion of plan area under the land use authority of the County is the focus of the environmental analysis in this draft EIR.

The draft EIR does not assume dispersal of development throughout the unincorporated county; it assumes that half of all growth would occur within approximately 1 percent of the land area. This is a concentration of development in existing communities and urban areas. There are no instances where an impact conclusion provided in the draft EIR is based upon the assumption that effects would be dispersed. The cumulative, countywide effects of development pursuant to the proposed land use diagram and policies in the 2040 General Plan in compliance with applicable federal, State, and local regulations have been evaluated throughout.

The northern portion of Ventura County encompassing the Los Padres National Forest, including the privately owned inholdings located within the geographic boundaries of the national forest, is currently designated as Open Space in the existing General Plan (2005). The Board of Supervisors did not direct staff to change the 2040 General Plan Open Space designation. Therefore, the designation of Open Space in the land use diagram is proposed to remain unchanged in the 2040 General Plan relative to the exiting land use diagram (refer to page 3-19 of the draft EIR). Consequently, the comment inaccurately states that the designation of this general geographic area as Open Space is a “recharacterization” that is intended to “intentionally mislead” with respect to development potential. Moreover, as the comment acknowledges, the draft EIR specifically states that development is not anticipated to occur on federally owned land within the Los Padres National Forest. The County proposes to retain the Open Space land use designation of this geographic area to ensure that the relatively small and widely dispersed private inholdings within the geographic boundaries of the Los Padres National Forest – which inholdings would be difficult to separately identify on a land use map – continue to have this existing land use designation.

Because the County lacks land use authority over federally owned land comprising the Los Padres National Forest, and because the County is not proposing to modify the General Plan land use designation for the relatively small and disperses areas of non-federally owned land located adjacent to and within the boundaries of the Los Padres National Forest, there is no potential for the

2040 General Plan to conflict with the Los Padres National Forest Land Management Plan. The commenter cites no substantial evidence to the contrary.

O15-8 The draft EIR evaluates the 2040 General Plan’s potential to cause a significant environmental impact due to a conflict with a regional plan, policy, or program adopted for the purpose of avoiding or mitigating an environmental effect, consistent with Appendix G of the State CEQA Guidelines. The draft 2020-2045 RTP/SCS forecasts were not used in the analysis because they had not been adopted at the time the Notice of Preparation or draft EIR were released.

On May 7, 2020, the Southern California Association of Government’s Regional Council adopted Connect SoCal (2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy) for federal transportation conformity purposes only. In light of the COVID-19 pandemic, the Regional Council will consider approval of Connect SoCal in its entirety and for all other purposes within 120 days from May 7, 2020. Like the 2016 RTP/SCS, the 2020 RTP/SCS envisions growth concentrated around existing communities and job centers. As discussed in the draft EIR for the 2040 General Plan, this is consistent with the proposed land use diagram, policies, and programs in the 2040 General Plan.

O15-9 Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.

O15-10 The analysis in Section 4.12, “Mineral and Petroleum Resources,” on page 4.12-31 of the draft EIR explains that the:

effects of pipeline construction would be consistent with the overall land disturbance described for physical development anticipated with implementation of the 2040 General Plan...potential environmental impacts from pipeline construction on traffic and circulation, air and water quality, and cultural, archeological and paleontological resources may occur. Additionally, construction activities and risks associated with pipeline operation may result in potential impacts on biological resources; however, NCZO 8107-5.5.5(d) and CZO 8175-5.7.7(e)(3) require pipelines to be routed away from sensitive biological habitats and other areas when feasible.

Therefore, any impact evaluation that is based on potential for land disturbance encompasses the implementation of these policies within the assumptions of potential land disturbance. As explained in the discussion in Section 4.4, “Biological Resources,” which is cited in the comment, the County cannot know if or where petroleum companies would propose to site pipelines over the more than 20-year plan horizon and can only generally assess the types of environmental effects that could occur and provide a prescriptive, performance-based mitigation to address reasonably foreseeable impacts.

O15-11 Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements,” regarding the findings and conclusions related to pipelines. The commenter

asserts that the draft EIR should identify the reasonably foreseeable location of future pipelines and analyze the potential environmental impacts of those foreseeable physical changes arising from the 2040 General Plan. The potential locations of future pipelines are unknown because their location depends on numerous market conditions and constraints that are highly uncertain. Mitigation Measure PR-2 recognizes this and specifies that “[t]rucking of crude oil and produced water may only be allowed if the proponent demonstrates that conveying the oil and produced water via pipeline is infeasible.”

O15-12 Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements.” Analysis of the potential locations of future pipelines and the resulting capacity needs of the existing pipeline system would be speculative because they will depend on numerous market conditions and constraints that are highly uncertain. Mitigation Measure PR-2 recognizes that the locations are unknown and specifies that “[t]rucking of crude oil and produced water may only be allowed if the proponent demonstrates that conveying the oil and produced water via pipeline is infeasible.”

O15-13 The County provided the draft EIR to the State Clearinghouse on Friday, January 10, 2020 for distribution Monday, January 13, 2020. (Refer to the stamped Notice of Completion available at <https://ceqanet.opr.ca.gov/2019011026/2>.) The County established the public review period as January 13, 2020 through February 27, 2020 in documents submitted to the State Clearinghouse and on the Notice of Availability sent to interested parties. The County considered all submittals through February 27, 2020 in this final EIR.

The County is unaware of any evidence to support the commenter’s claim that State agencies did not receive the draft EIR on January 13th as intended. State CEQA Guidelines Section 21091(c) provides three working days from the determination of completeness to distribution of the draft EIR, and indicates that the first day of the 45-day review period shall be the day that the document is distributed. This same subsection of the State CEQA Guidelines indicates that the State Clearinghouse establishes the period of review and comment by State agencies. The period of review established by the State Clearinghouse for State agencies was January 13, 2020 through February 26, 2020. The County assumes that the State Clearinghouse established this review period in compliance with the applicable regulations and the documents were timely distributed on January 13, 2020.

O15-14 The County has noted the preferred contact for the organization appropriately for future reference.

O15-15 The comment suggests the addition of the Bureau of Land Management or U.S. Forest Service to the discussion of potential responsible and trustee agencies on page 1-5 in Chapter 1, “Introduction,” because the Los Padres National Forest is designated as Open Space in the 2040 General Plan. Responsible and trustee agencies are defined in Public Resource Code Sections 21069 and 21070. Responsible agencies are agencies other than the lead agency that have discretionary power over carrying out or implementing a specific component of the general plan or approving a project (such as an annexation) that implements

the goals and policies of the general plan. Trustee agencies are specifically defined as State agencies with jurisdiction by law over natural resources that could be affected by the project. The draft EIR does not purport to, nor is it required to, provide a complete list of all potential agencies that could have discretionary power over aspects of development that would be implemented under the 2040 General Plan.

As is explained in the 2040 General Plan and the draft EIR, and as reiterated above, the County lacks land use authority over the federally owned land, including that comprising the Los Padres National Forest. The 2040 General Plan does not state or suggest that County-regulated development could occur on any such federally owned land. Moreover, the County has provided the U.S. Forest Service with notification of the draft EIR and solicited comment pursuant to Section 15086 of the State CEQA Guidelines.

- O15-16 Refer to response to comment O15-7, above, for a discussion of why the Los Padres National Forest is designated as Open Space in the 2040 General Plan.
- O15-17 The comment requests two additions to the draft EIR that are not required to satisfy the requirements of CEQA. The comment suggests the addition of a matrix that includes all 2040 General Plan policies and identification of potential impacts by resource category in Chapter 2, "Executive Summary," rather than the summary of impacts and mitigation measures provided in compliance with the CEQA Guidelines Section 15132. While this suggestion is acknowledged as an alternative method of presenting the conclusions of the draft EIR, such a matrix has not been added to the document because it would not facilitate evaluation of the proposed 2040 General Plan as a complete program.
- The comment also suggests that the County's key industries be listed in the draft EIR and an analysis of the 2040 General Plan's economic impacts on those industries should be provided. However, EIRs are not required to treat a project's economic effects as significant effects on the environment (CEQA Guidelines, § 15131). Economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. Although the comment implies that the economic effect would precipitate from land use inconsistencies generated through implementing the 2040 General Plan, there is no substantial evidence to support this claim. For further discussion of land use compatibility, refer to Section 4.11, "Land Use and Planning," in the draft EIR.
- O15-18 The comment provides suggested edits to the policies proposed in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer to response to comment A13-10 regarding the impacts of Policy AG-5.2
- O15-19 The comment requests the addition of an implementation program to the 2040 General Plan that would identify funding sources or develop incentive to encourage the oil and gas industry to transition to electrical equipment, similar to

Implementation Program J aimed at facilitating the transition for the agricultural industry. The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General Plan.

The comment also requests clarification about the implementation of Policy COS-7.2. Policy COS-7.2 does not include a provision that would permit occupants of nearby sensitive uses to waive the buffer requirement. The analysis of operational emissions in Section 4.3, "Air Quality," of the draft EIR does not suggest that it does. The analysis cites Policy COS-7.2 as a mechanism for reducing the effects of operational emissions under the 2040 General Plan compared to the existing requirements of the zoning code, indicating that "The proposed setback increases of Policy COS-7.2 would reduce the potential for sensitive receptors at residential dwellings and schools to be exposed to air pollutants including toxic air contaminants associated with new oil wells subject to discretionary approval" (draft EIR page 4.3-22). No revisions to the draft EIR have been made in response to this comment.

O15-20

The comment states that natural gas consumption is assumed to increase in the draft EIR analysis. It also states that Implementation Program COS-M does not align with the 2040 General Plan's objective to "promote efficiency and economic vitality" and the County should analyze how to supply the projected natural gas demands with renewable energy.

Implementation Program COS-M, which states that the County shall evaluate the feasibility of establishing a local tax on oil and gas operations, is intended to support the County's efforts to reduce future GHG emissions, which may include the expansion of local renewable energy generation in support of Policy COS-8.1 (Reduce Reliance on Fossil Fuel). Under this policy "the County shall promote the development and use of renewable energy sources (e.g., solar, thermal, wind, tidal, bioenergy) to reduce dependency on petroleum-based energy sources." Impact 4.8-1, on page 4.8-44 of the draft EIR explains that "the County would evaluate the feasibility of an excise tax on oil and gas operations, which would be intended to partially fund the County's response to climate change impacts."

The comment indicates that levying a tax on local oil and gas production "does not align with" the Guiding Principal established for public facilities, services, and infrastructure in the 2040 General Plan and incorporated into this EIR as a project objective to "Invest in facilities, infrastructure, and services, including renewable energy, to promote efficiency and economic vitality, ensure public safety, and improve our quality of life." While concepts such as economic vitality can be subjective and are best considered outside of the EIR's analysis of potential physical environmental changes that could result from project implementation, the 2040 General Plan and Program M in the Conservation and Open Space Element do support investment in infrastructure, including renewable energy. For this reason, the County finds that the 2040 General Plan is consistent with this objective.

The 2040 General Plan includes policies and programs that would support meeting the projected energy demands of the unincorporated county with renewable energy sources rather than natural gas. The County does not, however, intend “to supply these demands” with renewable energy, and a plan to do so does not need to be analyzed in the draft EIR. Specific policies in the 2040 General Plan that are analyzed throughout the draft EIR include: Policy COS-8.1, through which the County would promote the development and use of renewable energy resources; Policy COS-8.4, through which the County would continue to serve as an active member of the Clean Power Alliance or similar organization providing local customer access to electricity generated from low carbon renewable energy sources in excess of State requirements; Policy COS-8.5 establishing that the County would work with utility providers to offer residents options to purchase and use renewable energy resources; Policy COS-8.8 encouraging the integration of features that support the generation, transmission, efficient use, and storage of renewable energy sources in discretionary development; and Policy EV-4.4, which establishes that the County will identify appropriate locations to allow for development of renewable energy generation and storage facilities and encourage the development of innovative approaches to renewable.

- O15-21 The comment indicates that the California Energy Commission’s (CEC’s) study of the cost effectiveness of the reach code (which go over and above minimum energy code requirements) and identified in Mitigation Measure GHG-1 should have been performed prior to release of the draft EIR and “would be supplemental to this EIR to effectively analyze social and economic impacts.” The comment further states that policies that rely on approval of this study should be removed from the 2040 General Plan.

The discussion of impact significance after mitigation on page 4.8-47 of Section 4.8, “Greenhouse Gas Emissions,” notes that Mitigation Measure GHG-1 “directs the County to update the building code to include reach codes.” However, the discussion notes that the ultimate decision about implementation of Mitigation Measure GHG-1 is not entirely in the County’s jurisdiction because adoption of a reach code is predicated on approval of a cost-effectiveness study by CEC, pursuant to Public Resources Code Section 25402.1(h)2. For this reason, the proposed mitigation measure was not relied upon to reduce Impact 4.8-1 (Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment) to a less-than-significant level. Although under this mitigation measure a cost-effectiveness study specifically for the County would be submitted to the CEC for review prior to code adoption, this study would likely include analyses already conducted by utilities in 2019 which demonstrate the technical feasibility, cost-effectiveness, GHG and energy reducing potential of reach codes in climate zones covering the County (SCE 2019; PG&E 2019). The County will consider adopting this mitigation measure when making a decision regarding approval of the 2040 General Plan. Although the County has not yet adopted the mitigation that would require development of the reach code, the initial studies cited show favorable economic and energy saving outcomes of reach code implementation for ratepayers that would likely satisfy the prerequisites evaluated by the CEC under Public Resources Code

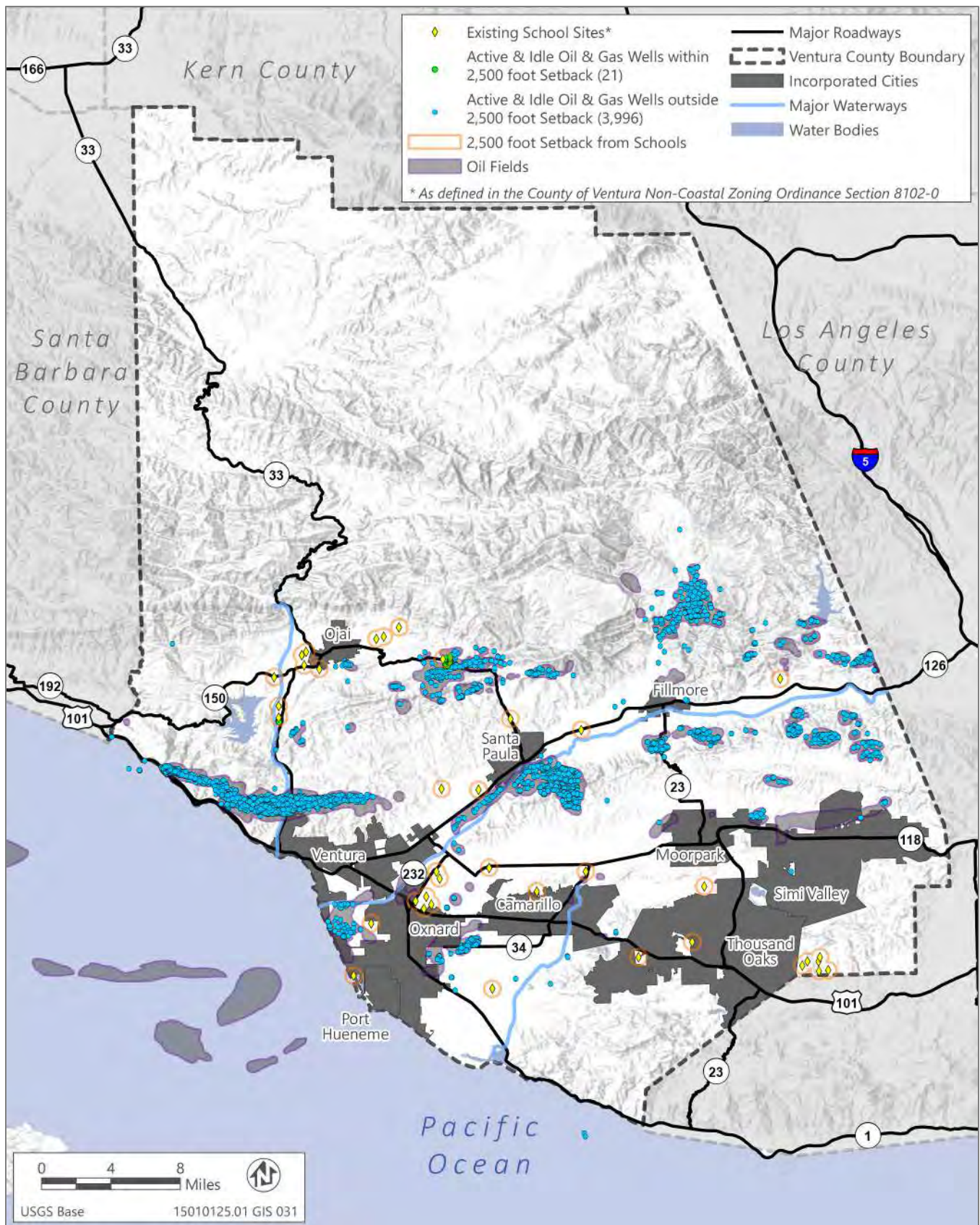
Section 25402.1(h)2. Note that there are no policies in the 2040 General Plan that require approval of the study. Further, the study would not inform the analysis of economic and social impacts in the draft EIR because analysis of these issues is specifically omitted from consideration in an EIR. Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The EIR has not been revised in response to this comment.

O15-22 Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements.” Analysis of the potential locations of future pipelines and the resulting capacity needs of the existing pipeline system would be speculative because they will depend on numerous market conditions and constraints that are highly uncertain. Mitigation Measure PR-2 recognizes that the locations are unknown and specifies that “[t]rucking of crude oil and produced water may only be allowed if the proponent demonstrates that conveying the oil and produced water via pipeline is infeasible.”

O15-23 Refer to Master Response MR-4, Section MR-4.H, “Buffers (Setback),” Section MR-4.E, “Applicability of Reference Studies for Oil and Gas Operations,” and Section MR-4.G, “Pipeline Requirements,” regarding the findings and conclusions related to setbacks, and the adequacy of the reports used to derive the findings and conclusions. Additionally, the commenter notes that Thomas Aquinas College, which does not meet the definition of a school pursuant to Policy COS 7.2, is incorrectly identified in the draft EIR Figure 4.12-1, Oil and Gas Well 2,500-ft Setback from Schools Map (page 4.12-5). Figure 4.12-1 includes the following notation in the legend “As defined in the County of Ventura Non-Coastal Zoning Ordinance Section 8102.” The draft EIR indicates that the Ventura County Non-Coastal Zoning Ordinance (Section 8102-0 defines schools as educational facilities for pre-college levels of instruction; specifically limited to elementary, middle school and high schools offering full curricula as required by State law. The Ventura County Coastal Zoning Ordinance does not include a definition for schools (page 4.12-18). The commenter is correct that Thomas Aquinas College was incorrectly depicted on Figure 4.12-1. Furthermore, the legend on Figure 4.12-1 did not include the full citation for the Section 8102-0 of the Non-Coastal Zoning Ordinance. Figure 4.12-1 has been revised in response to this comment, as shown below.

As a result of the figure revisions made in response to this comment, the last sentence of the second paragraph on page 4.12-14 in Section 4.12, “Mineral and Petroleum Resources,” is revised as follows:

As shown in Figures 4.12-1 and 4.12-2, there are currently 21 ~~23~~ active and idle oil wells within 2,500 feet of existing schools and 715 active and idle oil wells within 1,500 feet of existing dwelling units in the unincorporated county.



Source: Ventura County, 2016; CAL FIRE 2007 (State), 2008 (Local), and 2016 (Federal); USGS, 2013; DOGGR, 2019

Revised Figure 4.12-1 Oil and Gas Well 2,500 foot Setback from Schools

Similarly, the second paragraph on page 4.12-22 is revised to read:

As discussed above, Figure 4.12-3 depicts the oil fields within Ventura County, active and idle oil and gas wells, and the eleven zone classifications which allow for oil and gas exploration and production as a conditionally permitted land use that is potentially compatible with dwelling units and schools. Future oil and gas extraction within compatible zone classifications with minimum parcel sizes of 10,000 and 20,000 square feet may be hampered or access to petroleum reserves precluded as these zones have smaller minimum lot sizes which provide less flexibility in the siting of allowed uses and allow for greater maximum lot coverage which may inhibit compliance with the setback distances prescribed in Policy COS-7.2. Furthermore, as shown in Figures 4.12-1 and 4.12-2, there are currently 21 ~~23~~ active and idle oil wells within 2,500 feet of existing schools and 715 active and idle oil wells within 1,500 feet of existing dwellings in the unincorporated county. Future discretionary expansion of oil production within the setback distances depicted on Figures 4.12-1 and 4.12-2 would be prohibited pursuant to Policy COS-7.2. Policy COS-7.2 could theoretically affect local oil and gas exports and increase the reliance on imports from outside of the 2040 General Plan area. There are no actions or policies that the County could feasibly mandate to fully reduce the impact that Policy COS 7.2 would have on hampering or precluding access to petroleum resources. This impact would remain **significant and unavoidable**.

The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the Draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- O15-24 Refer to Master Response MR-4, Section MR-4.G, "Pipeline Requirements." Analysis of the potential locations of future pipelines and the resulting capacity needs of the existing pipeline system would be speculative because they will depend on numerous market conditions and constraints that are highly uncertain. Mitigation Measure PR-2 recognizes that the locations are unknown and specifies that "[t]rucking of crude oil and produced water may only be allowed if the proponent demonstrates that conveying the oil and produced water via pipeline is infeasible."
- O15-25 The comment raises a series of concerns related to the analysis of energy facilities in Section 4.17, "Utilities." As explained in the draft EIR, this section focuses on gas and electricity facilities that supply energy to consumers. An evaluation of county-wide energy consumption is provided in Section 4.6, "Energy," and an evaluation of effects on the extraction of petroleum resources is provided in Section 4.12, "Minerals and Petroleum Resources."

The comment suggests that information about the fuel sources currently used in the county and the existing capacity to provide renewable energy should be provided in the existing setting to inform the analysis of impacts in Section 4.17,

“Utilities,” in the draft EIR. However, this information is not relevant to the impact evaluation that follows. The transition to renewable resources is discussed in Section 4.6, “Energy.” As explained in the analysis on page 4.6-20, the process is underway. The 2040 General Plan encourages the County to continue to work with local partners to supply electricity and gas produced from renewable sources, building on the “Clean Power Alliance, which currently provides 100 percent carbon-free electricity to 83 percent of eligible utility customers in the unincorporated county, as shown in Table 4.6-1.”

Impact 4.17-1 in Section 4.17, “Utilities,” evaluates the potential for the 2040 General Plan to cause a disruption or rerouting of an existing utility facility. The new policies in the 2040 General Plan related to oil and gas extraction would apply only to new wells and, therefore, are not the subject of this analysis.



CENTER FOR BIOLOGICAL DIVERSITY

SECRETARY

Letter
016

February 24, 2020

Sent via email

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, California 93009-1740
susan.curtis@ventura.org
GeneralPlanUpdate@ventura.org

Re: Request for 90-Day Comment Deadline Extension on the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan

Dear Ms. Curtis:

The Center for Biological Diversity respectfully requests an extension of the comment period for the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan (State Clearinghouse No. 2019011026). The current 45 day comment period imposes a deadline of February 27, 2020, and is inadequate to allow full review of (1) the Draft EIR which covers complex issues in its 598 pages plus six appendices, including a 1034 page background report and (2) the Public Review Draft of the General Plan, which is 463 pages and includes four appendices.

O16-1

It is simply not possible for the public to meaningfully review and comment on these documents in such a short timeframe. Due to the sheer volume and complexity of the materials, we believe an additional 90 days is required. Extending the deadline to May 27, 2020 would allow for a more comprehensive review and more useful comments. We therefore respectfully request that you consider extending the comment period an additional 90 days.

Thank you for your attention to this matter.

Sincerely,

J.P. Rose
Urban Wildlands Staff Attorney
Center for Biological Diversity
660 S. Figueroa Street, Suite 1000
Los Angeles, California 90017
rose@biologicaldiversity.org

Arizona · California · Colorado · Florida · N. Carolina · Nevada · New Mexico · New York · Oregon · Washington, D.C. · La Paz, Mexico

BiologicalDiversity.org

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|-----------------------|----------------------------------------------------------------------------------------------------------|
| Letter O16 | Center for Biological Diversity J.P. Rose, Urban Wildlands Staff Attorney February 24, 2020 |
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- O16-1 The draft EIR was available for a 45-day review period from January 13, 2020, to February 27, 2020, in compliance with CEQA (Pub. Res. Code, § 21091). The commenter's request for extension of the comment period has been noted. No extension of the comment period was granted.

From: Offerman, Steve <Steve.Offerman@ventura.org>
Sent: Monday, February 24, 2020 9:43 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Downing, Clay <clay.downing@ventura.org>
Subject: comment: Draft General Plan 2040

Letter
017



PO Box 1164
Ventura, CA 93002-1164
February 23, 2020

Dear Members of the Ventura County Board of Supervisors:

I write to you today on behalf of the 300 plus members of the Channel Islands Bicycle Club. My goal is twofold:

First, we wish to thank you for your leadership in multi-modal transportation. We cyclists are keenly aware and highly appreciative of the 29 miles of Class II bike lanes recently added to county roads and of the commitment of an unprecedented \$6 million in general funds designated new bike lanes on these same roads. Together, they support a healthier, safer, more active populace and reduce the need for car trips. Thank you.

Second, we wish both to applaud the robust, active transportation elements of the Draft General Plan 2040 and to encourage their implementation. In particular, we support the plan's commitment to policies that allow those who wish to travel on foot or by bike to do so safely, specifically:

- Encouraging bicycling, walking, public transportation and other forms of alternative transportation to reduce vehicle miles traveled, traffic congestion and greenhouse gas emissions.
- Expanding Safe Routes to School.
- Efficient land use patterns to reduce the need for single use car trips.
- Countywide bicycle lanes and trail systems connecting our community.
- Bicycle facility design that prioritizes cyclists' safety and visibility.
- Safe pedestrian crossings.
- Multi-modal choices that make driving alone an option rather than a necessity.
- Separated or buffered pedestrian and bicycle paths along County Road Networks that are designated Overweight Vehicle Corridors and STAA designated Terminal Access Routes.
- Constructing abandoned railroad rights-of-way for active transportation – particularly the Santa Paula Branch Line Railroad Class 1 Bike Trail.
- Prioritizing an inclusive, regionally connected and consistently signed bicycle network such as that put forth in VCTC's Bicycle Wayfinding Plan. Such a network would connect our towns and important destinations within each community.

We thank you for progress made to date and look forward to a Ventura County that encourages healthier, less polluting living.

Sincerely,

Leslie Ogden

President, Channel Islands Bicycle Club

O17-1

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| Letter O17 | Channel Islands Bicycle Club Leslie Ogden, President February 24, 2020 |
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- O17-1 This comment expresses support for the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General Plan.



Letter
018

25 February 2020

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

susan.curtis@ventura.org, GeneralPlanUpdate@ventura.org

Request for a Comment Deadline Extension on the Draft Environmental Impact

Report for the County of Ventura Draft 2040 General Plan

Dear Ms. Curtis:

It has come to our attention that several prominent environmental groups are having difficulty reviewing the very complex and lengthy General Plan Update EIR and need additional time to prepare informed comments. CFROG Climate First: Replacing Oil & Gas supports those requests and proposes an extension of at least 45 days. To rush through this process would be a disservice to the community.

O18-1

Sincerely,

John Brooks

President CFROG

| | |
|-----------------------|----------------------------------------------------------------------------------------------|
| Letter O18 | Climate First: Replacing Oil & Gas John Brooks, President February 25, 2020 |
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O18-1 The draft EIR was available for a 45-day review period from January 13, 2020, to February 27, 2020, in compliance with the California Environmental Quality Act (Pub. Res. Code, § 21091). The commenter’s request for extension of the comment period has been noted. No extension of the comment period was granted.



Letter
O19

#201 940 E Santa Clara Street
Ventura, CA 93003
February, 2020

Comments regarding the suggested mitigation measure for Pipeline Requirement, COS-7.7, Mitigation Measure PR-2

The Ventura County Board of Supervisors, after public discussion and review, approved a new policy, COS-7.7, to require new oil wells to use pipelines to convey oil and produced water offsite (rather than trucking). This new policy is part of the 2040 General Plan. The DEIR for the plan analyzed the policy and found that the requirement for pipelines in COS-7.7 ... *“proposed in the 2040 General Plan that would result in new requirements that would apply to new projects subject to discretionary action by the County that could limit petroleum extraction without placing a physical limitation on location or access.”*

The DEIR also found that COS-7.7 could reduce attainment of the following 2040 General Plan Guiding Principle:

***Economic Vitality:** Foster economic and job growth that is responsive to the evolving needs and opportunities of the County’s economy and preserves land use compatibility with Naval Base Ventura County and the Port of Hueneme, while enhancing quality of life and promoting environmental sustainability.*

Assumptions in the DEIR leading to the finding regarding economic vitality are based on inadequate and inaccurate information.

Figure 4.12-4 in the DEIR is a map showing conveyance pipelines throughout Ventura County and an arbitrary two-mile boundary around each conveyance pipeline. The map also shows active oil wells within and outside of the two-mile boundary. Based upon the boundary line, the DEIR makes the following assumption: *“For purposes of the following analysis and based on the estimated per mile cost to install pipelines, it is assumed that any existing oil wells located within a 2-mile radius of a major oil or gas transmission pipeline are connected to these transmission lines through smaller gathering or minor pipelines.”* (DEIR 4.12-26)

The DEIR goes on to assume that operators inside the two-mile boundary will be able to meet the API gravity requirements of the pipeline operator and those outside of the two-mile boundary would not be able to meet the API requirements. Based upon those assumptions the DEIR analysis concludes: *“Therefore, it is assumed that most operators located beyond the two-mile radius of a major transmission pipeline would not be able to comply with the pipeline requirements of Policy COS-7.7 due to the technological and economic infeasibility of installing lengthier pipelines greater than two-miles from*

O19-1

new oil wells to a major oil transmission line or due to the additional on-site production facilities to process crude oil in order to comply with API gravity thresholds and standards in order to convey oil through a major oil transmission pipeline.”

To support this conclusion the analysis goes on to assume that “The oil operators located beyond the two-mile radius, and in more remote locations, likely consist of smaller oil producing operations that are not extracting a large amount of oil.”

Figure 4.12-4, (DEIR, 4.12-25, map) tells a very different story about operators outside the two-mile boundary according to data from the Conservation California government website <https://maps.conservation.ca.gov/doggr/wellfinder/#/-118.81117/34.45021/12>

The DEIR says there are 472 active oil wells outside the two-mile boundary depicted on Figure 4.12-4. While the Figure is very hard to interpret due to its size and format, it does not show 472 active oil wells outside of the two-mile boundary. The DOGGR wellfinder website shows four discrete clusters (more than 5 active wells) of active oil wells adjacent to and beyond the arbitrary two-mile boundary. One of the largest clusters is the Timber Canyon oil lease between Santa Paula and Upper Ojai and the other is to the northwest of Fillmore in the Sespe oilfield in Ventura County. **Both the Timber Canyon oilfield and the Sespe oilfield are in the Los Padres National Forest where oil wells and facilities are permitted by the BLM.** A coalition of environmental groups and the State of California filed two separate lawsuits in October, 2018, to reinstate the Waste Prevention Rule that significantly affected flaring in the National Forest. The Trump Administration had rolled back that Rule in 2016. It seems unclear if a rule to eliminate trucking of new oil production in Ventura County would affect oil coming across county roads from BLM permitted oil wells, and the issue is not discussed in the DEIR. Since Figure 4.12-4 does not include Forest boundary lines, it is completely unclear what oil wells outside the two-mile boundary may be within the forest, but counted in the 472 active oil wells “depicted” on the Figure.

O19-1
cont.

Carbon California is not a small remote operator that lacks the ability to build additional onsite production facilities to process crude oil in order to comply with transmission pipeline API gravity requirements. Nor is it a small operator that cannot feasibly build an oil pipeline to a transmission sales pipeline. It currently utilizes a gas pipeline from Timber Canyon to the So Cal Gas pipeline, so it is highly likely an oil pipeline could also be constructed.

The second large cluster of active oil wells outside the two-mile boundary is also owned and operated by Carbon California.

The Sespe Oilfield, in the Los Padres Forest, Ventura County, is owned and operated by Carbon California which acquired the land and lease from Seneca in 2018 for 43 million dollars. Carbon has approximately 100 active wells in this field outside of the two-mile boundary. The DOGGR wellfinder interactive map appears to show that all of the active oil wells north of Fillmore are operated by Carbon with the possible exception of one or two individual wells. There is a major transmission pipeline that serves some of the Carbon wells in the Sespe oilfield. There are at least 4 active wastewater injection wells in the field.

Because the DEIR lacks information regarding the ownership of active oil wells, and lacks an analysis of the actual size of oilfields near or outside the two-mile boundary, it is unclear how assumptions could be made about the types of operators, API gravity of produced oil, and assumptions that pipelines would have to be individually constructed over two-miles by small operators.

The remaining two smaller clusters (greater than 5) of active oil wells outside the two-mile boundary are on Sulphur Mountain and above Piru. Termo's facility is on Sulphur Mountain. Termo received a CUP in the 1980's and at the time was required to build a pipeline to transmit oil and gas. Termo built the pipeline and transmits its oil and gas to the transmission pipeline running through Upper Ojai. Termo uses an injection well for its produced water.

The last small cluster of active oil wells outside the two-mile boundary is above Piru. There are approximately 14 active oil wells scattered in the oilfield, operated by two companies, DCOR and AMPLE. According to Figure 4.12-4, approximately 20 active wells inside the two-mile boundary in the same area are assumed to be connected to the main transmission line that runs along Highway 126. The map also shows that 8 of the 14 wells outside the arbitrary two-mile boundary are adjacent to or on the boundary line. It would be highly beneficial to the community of Piru if pipelines were required. The citizens would directly benefit from better air quality, less noise, less truck traffic, and significantly reduced risk of accidents if oil and wastewater is not trucked down the main street of Piru.

All of the oil wells in Oxnard, Ventura, and south-west of Santa Paula are assumed to be connected to pipelines according to Figure 4.12-4 and the DEIR discussion.

O19-1
cont.

Produced Wastewater is often reinjected onsite primarily because the oil fields in Ventura County are older, contain more wells, and are likely to have an unnecessary well that can be used for injection.

The DEIR uses the same unsubstantiated assumptions to argue that wastewater cannot be either reinjected or transmitted via pipeline if the facility is over two-miles from a transmission pipeline. However, the wastewater from the two largest clusters of active oil wells and at least one of the smaller clusters outside the two-mile boundary is already being reinjected onsite.

Operators outside of the two-mile boundary can connect to their own onsite pipelines within the two-mile boundary in most locations

Another false assumption in the DEIR is that operators outside the two-mile boundary would have to build their own pipelines from each new oil well all the way to the transmission line. Since there has been significant consolidation of ownership of oil leases in Ventura County in the past five years, most operators outside the boundary who wish to drill new additional oil wells are the same operators inside the boundary line with gathering lines that can be tapped into for conveyance to larger transmission lines. Additionally, current Ventura County zoning ordinances specifically encourage operators to consolidate and share facilities such as pipelines and infrastructure to achieve API oil gravity requirements. (NCZO Sec. 8107-5.5.4 Permittees and

O19-2

operators should share facilities such as, but not limited to, permit areas, drill sites, access roads, storage, production and processing facilities and pipelines.)

O19-2
cont.

Feasibility Study cited in DEIR showing the economic hardship to an operator to build a pipeline from his drill site is within the two-mile boundary and should be connected to a major conveyance pipeline, according to the DEIR analysis

The DEIR finding assumes that small operators would be protected financially if there was a physical limitation on the location of the requirement for pipelines. That assumption is based on the idea that most small operators are outside of a two-mile boundary around major transmission lines in the County. For evidence, the DEIR included a summary of a feasibility study conducted by Renaissance Petroleum to determine whether or not oil could be transmitted by pipeline from the Nauman drill pad through agricultural land in Oxnard. Figure 4.12-4 (map) clearly shows the Renaissance Petroleum Nauman drill site well within the two-mile boundary of a major transmission pipeline. In fact, the map shows all active wells in the Oxnard area are within the two-mile boundary.

O19-3

Regardless of the feasibility of the pipeline, the expansion permit for Renaissance Petroleum was denied by the Board of Supervisors because of public health concerns based upon its close proximity to a densely populated mobile home park in a disadvantaged neighborhood.

The real number of small operators wishing to drill new oil wells in areas outside of the two-mile boundary whose oil production will be outside of the API gravity requirements and do not have access to facilities to meet those requirements is extremely small. Therefore, the small number should not have a significant impact on the economic prosperity of Ventura County, on jobs or on oil production.

Additionally, the small amount of oil that will be affected by new policy COS-7.7 will not substantially reduce the regional availability of oil and gas and it would not render any large oilfield inaccessible such as the oilfields Ojai, Oxnard, South Mountain, Santa Paula, or Ventura.

O19-4

In the event the county determines they should issue a statement of overriding considerations, the County should determine that this impact is acceptable because specific overriding economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of the proposed policy outweigh its significant effects on the environment.

CFROG Request the DEIR be amended to find: IMPACT of new policy COS-7.7: LESS THAN SIGNIFICANT

Action required: Withdraw mitigation measure PR-2, find the impact to economic prosperity less than significant, and restore COS-7.7 to the 2040 General Plan as the Board of Supervisors intended.

A local, grassroots organization protecting our water, air, and climate
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CFROG is a 501(c)(3) tax-exempt organization

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| Letter O19 | Climate First: Replacing Oil & Gas February 26, 2020 |
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O19-1 Refer to Master Response MR-4.

O19-2 Refer to Master Response MR-4.

O19-3 Refer to Master Response MR-4.

O19-4 Refer to Master Response MR-4.

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February 27, 2020

Via E-Mail

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Re: County of Ventura 2040 General Plan and Draft Environmental
Impact Report – State Clearinghouse No: 2019011026

Dear Ms. Curtis:

This firm represents Climate First: Replacing Oil & Gas (“CFROG”) on matters related to the 2040 General Plan (“the Draft Plan”) and its draft environmental impact report (“DEIR”). As detailed below, the Draft Plan fails to take meaningful, feasible steps to confront climate change. The DEIR also falls far short of the requirements of the California Environmental Quality Act (“CEQA”) (Public Resources Code section 21000 *et seq.*) and CEQA Guidelines (California Code of Regulations, title 14 section 15000 *et seq.*).

As you know, CFROG’s primary concerns include the effect of oil and gas development on Ventura County’s climate, natural resources, and quality of life. Proximity to oil and gas exploration, extraction, processing, and transportation exposes countless County residents to ongoing harm, exacting a tremendous toll on public health and safety. Moreover, the County is already experiencing severe impacts from climate change, and those impacts are likely to intensify in coming years. As CFROG has pointed out in prior letters, overwhelming scientific evidence shows humanity has only a few years remaining in which to dramatically draw down fossil fuel emissions if we are to preserve a decent chance of avoiding even more severe and lasting disruptions.

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Unfortunately, like its predecessor, the Draft Plan does little to promote the policy transitions required to meet this challenge. If anything, the Draft Plan's approach to oil and gas policy largely continues a business-as-usual approach to petroleum extraction. This is so despite the Draft Plan's recognition that the County must reduce greenhouse gas emissions by roughly 60 percent over the next 20 years in order to keep up with reductions demanded by state climate policy.

As explained in CFROG's prior comments,¹ although CFROG recognizes the history and economic importance of the County's oil industry, the time for a transition to cleaner alternative sources of energy and economic sustenance is now. With that principle in mind, CFROG previously submitted recommendations of specific policies and programs to be adopted as part of the General Plan, or if they are not adopted, that they be considered as mitigation measures and/or alternatives in the DEIR for the General Plan. We are disappointed that many of CFROG's recommended policies and programs have neither been included in the Plan nor discussed in the DEIR.

O20-1
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The County's General Plan update process is a critically important planning exercise because so much is at stake. The climate change crisis alone mandates a dramatic refocus away from the business-as-usual approach of facilitating oil and gas extraction in the County. A recent analysis of more than a century of temperature data indicates that temperatures from Santa Barbara southward are warming at double the rate of the continental United States. Washington Post, "California climate change: Fires, floods and a fight over free parking," December 5, 2019, attached as Exhibit 1. Ventura County has suffered an average temperature increase of 4.7 degrees Fahrenheit since preindustrial times and ranks as the fastest-warming county in the lower 48 states. *Id.*

While the Draft Plan contains some laudable policies, it nonetheless fails to demonstrate a serious commitment to tackling this ecological and social crisis. Many of

¹ This firm previously submitted comments on the Preliminary Draft General Plan Update ("Preliminary Draft") dated June 5, 2019. In that letter we described many substantive flaws in the Preliminary Draft, many of which the County disregarded in preparing the Draft Plan. We also recommended numerous new and amended policies and asked that they be considered as mitigation measures and/or alternatives in the DEIR; most of these recommendations, however, are not addressed at all in the DEIR. Consequently, most of the comments in the June 5 letter remain applicable to the current Draft Plan and DEIR. Our June 5, 2019 letter and accompanying exhibits and references are therefore incorporated herein by reference.

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the Draft Plan’s policies are merely advisory and lack the enforceable detail necessary to achieve real greenhouse gas reductions. The DEIR, for its part, proposes to water down many of the Draft Plan’s provisions even further.

The Draft Plan and DEIR are out of touch with both climate science and state policy. The State of California has begun active planning for a managed transition away from fossil fuels. The 2019 Budget Act allocated significant funding for studies outlining a long-term reduction in both demand for and supply of fossil fuels, in service of the state’s goal of achieving carbon neutrality by 2045. *See* Stats.2019, ch. 23, Item 0555-001-3228 (Assembly Bill No. 74), attached as Exhibit 2. The state has adopted a scope of work for each study and the planning effort is underway. *See* Carbon Neutrality Studies Scope of Work, Studies 1 and 2, attached as Exhibits 3, 4. The Draft Plan’s commitment to expanded oil and gas operations in Ventura County is contrary to these statewide efforts and profoundly counterproductive.

The 2040 General Plan update offers a critical opportunity to support statewide and global efforts by shifting away from dependence on oil and gas production and expanding renewable energy production and consumption. Such a shift would have tremendous benefits, including reduced air pollution and greenhouse gas (“GHG”) emissions, lower energy consumption, fewer impacts to public health and safety, and greater water quality protection. In other words, a shift in direction would provide either an alternative or a series of mitigation measures that could further reduce or avoid many of the Draft Plan’s significant environmental impacts.

Unfortunately, the Draft Plan and DEIR fail to provide for any such shift, and instead assume continued expansion of oil and gas extraction, even as statewide production continues to decline and the rest of California begins to plan for a post-carbon future. Indeed, the DEIR admits the Draft Plan will not achieve the County’s fair share of reductions needed to meet either short-term or longer-term state climate goals. The Draft Plan’s business-as-usual approach will create long term environmental damage, affecting residents and future generations throughout the region.

Finally, as detailed below, the DEIR fails to meet CEQA’s requirements. For example, the DEIR fundamentally fails to identify or analyze credible, feasible mitigation measures or alternatives that could reduce or avoid the Draft Plan’s significant environmental impacts. CEQA requires enforceable, concrete commitments to mitigation and consideration of a range of potentially feasible alternative approaches that could avoid significant impacts. The DEIR, in contrast, primarily offers vague, voluntary, and unenforceable policies, particularly with respect to anticipated greenhouse gas emissions.

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O20-2

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As a result, the DEIR fails to describe measures that could avoid or substantially lessen the proposed Plan’s numerous significant impacts.

O20-2
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I. The County’s Climate Action Plan Is Ineffective At Reducing GHG Emissions.

As acknowledged in the DEIR for the Draft Plan, the County has a considerable number of oil and gas operations in the unincorporated areas. Draft Plan at 6-12. These facilities contribute to climate disruption. Further expanding local oil and gas development will add even more carbon to the atmosphere, undercut California’s efforts to reduce emissions, and further limit our ability to avoid the worst effects of climate change. The General Plan Update—and, in particular, the provisions of the Plan comprising the County’s Greenhouse Gas Strategy or Climate Action Plan (“CAP”)—offers an important opportunity to reduce emissions from oil and gas development.

O20-3

Unfortunately, the CAP as described in Appendix B to the Draft Plan largely passes up this opportunity. As explained in more detail below, the CAP presents incomplete and inaccurate data regarding anticipated GHG emissions under the proposed Plan. In addition, the CAP lacks specific, enforceable measures necessary to achieve the established targets and goals for emission reductions. As a result, the CAP is ineffective in reducing anticipated GHG emissions, and the DEIR’s conclusions regarding the Draft Plan’s climate impacts are without support.

A. The Baseline Inventory of GHG Emissions Is Incomplete and Inaccurate.

As we pointed out in our prior letter on the Preliminary Draft, the baseline inventory of County GHG emissions is the foundation of the CAP. Without a complete and accurate inventory, the County cannot accurately project future business-as-usual (“BAU”) emissions or measure the effectiveness of reduction measures in meeting identified targets and goals. Effective policies cannot be built on a flawed inventory. Unfortunately, the CAP inventory remains incomplete, internally inconsistent, and inaccurate.

O20-4

According to the CAP, 2015 stationary source emissions totaled 275,096 MTCO_{2e}. Draft Plan, Appendix B at B-7 (Table B-2), B-8. This estimate purportedly was derived “by scaling the statewide emissions reported for oil and gas production to the local level using the proportion of oil and gas production in the unincorporated area relative to the statewide total.” *Id.* at B-8.

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The estimate in the CAP is not clearly supported by data in the DEIR. Appendix D to the DEIR appears to take two different approaches to estimation of stationary source emissions. The first approach (in a spreadsheet entitled “Estimating Ventura County Stationary Source Emissions from Oil and Gas”) estimates a total of 284,693 MTCO₂e. DEIR, Appendix D at 43. The second approach (apparently using two spreadsheets, one entitled “Statewide Stationary Source Emissions from Oil and Gas” and the second entitled “State Report on Well County and Production of Oil, Gas, and Water by County – 2015”) arrives at the “scaled” emissions estimate of 275,096 MTCO₂e discussed in the CAP. DEIR, Appendix D at 44-45. Neither the CAP nor the DEIR appears to explain the discrepancy between the two estimates.

Further inconsistencies in the inventory are similarly unexplained. For example, estimates under the first approach described above show zero emissions from natural gas “fuel combustion” in the County. DEIR, Appendix D at 43. Statewide figures supporting the second approach, however, show that natural gas combustion is by far the single greatest source of CO₂ emissions from the oil and gas sector (13,750,201 MTCO₂e, or 69.4% of statewide total CO₂e emissions). *Id.* at 44. Neither the CAP nor the DEIR appears to contain any evidence that unlike the rest of the state, not a single oil and gas operation in Ventura County consumes natural gas. As we pointed out in our letter on the Preliminary Draft Plan, cyclic steaming and steam flooding operations—which often burn natural gas to generate steam—are currently occurring in the County, including in the Oxnard oilfield. DOGGR 2017 (annual report) at 22 (attached as Exhibit 5) to comments on Preliminary Draft Plan). In fact, the Ventura County Air Pollution Control District recently issued a permit to California Resources Production Corporation authorizing operation of steam generators “fired on PUC Natural gas, with PUC natural gas mixed with produced gas as secondary fuel.” VCAPCD, Part 70 Permit No. 00012, Section No. 2 at 1 (Table No.2) (May 14, 2019), attached as Exhibit 6; *see also* VCAPCD Rule 74.15.B.1(3)(a) (allowing steam generators to use “alternate fuel” only “due to the curtailment of natural gas service to the individual unit by the natural gas supplier” and only during “the period of natural gas curtailment”). Steam generators in Ventura County clearly use natural gas in the production of oil. The inventory’s omission of natural gas combustion emissions is thus inaccurate and unsupported.

The “scaled” estimate of emissions from County oil and gas operations also appears unreasonably low. DEIR Appendix D concludes that Ventura County produces 4.2% of the state’s oil and 5.1% of the state’s associated gas. DEIR, Appendix D at 45. Yet DEIR Appendix D also concludes that Ventura County contributes only about 1.4% of the statewide GHG emissions from oil and gas (275,096 MTCO₂e out of the statewide total of 19,803,975 MTCO₂e). Again, neither the CAP nor the DEIR explains why

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“scaled” Ventura County emissions are so low compared to the volumes of oil and gas produced.

This stark discrepancy further underscores a point we made in our prior comments: the Preliminary Draft Plan failed to explain or provide evidentiary support for the “scaled” estimate, i.e., for calculating Ventura County emissions as a percentage of statewide emissions from the oil and gas sector rather than based on information specific to exploration and production in Ventura County. Neither the CAP nor the DEIR supplies the missing explanation. Local oil and gas operations may or may not be consistent with statewide averages in terms of the energy (and associated emissions) required for extraction. However, additional justification and explanation of this methodological choice, based on information specific to Ventura County, is necessary—particularly in light of the DEIR’s apparent conclusion that County oil and gas emissions are significantly lower than anywhere else in the state, even on a “scaled” basis.

The CAP inventory also continues to omit other sources of GHG emissions from oil and gas production. For example, the inventory does not include emissions from the transport of oil and gas production, particularly freight rail and ocean freight emissions. Draft Plan, Appendix B at B-8. Nor does the inventory include any “downstream” emissions from refining or combustion of County-produced oil and gas. As explained in our prior letter, these emissions should have been included because the County controls activities related to exploration and production of oil and gas. Without these activities, emissions from transportation, refining, and combustion of oil and gas produced in the County would not occur. Where, as here, “downstream” emissions are foreseeable and capable of estimation, they should be disclosed. *Cf. Sierra Club v. Federal Energy Regulatory Com.* (D.C. Cir. 2017) 867 F.3d1357; *Mid States Coalition for Progress v. Surface Transportation Bd.* (8th Cir. 2003) 345 F.3d 520. Nor can the County avoid responsibility for disclosing and analyzing rail and ocean freight emissions simply because it may lack authority to prevent or mitigate the effects of these activities directly. See *Association of Irrigated Residents v. Kern County Bd. of Supervisors* (2017) 17 Cal.App.5th 708, 750-52 (federal preemption of railroad regulation did not extend to responsibility for disclosure and analysis of environmental effects of railroad operations under CEQA).

O20-4
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It is also unclear whether the emissions inventory includes aviation emissions. The DEIR includes emission factors for aviation gas and jet fuel. DEIR, Appendix D at 47 and 49. However, the inventory does not appear to include any emissions from aircraft. *Id.* at 27 and 28. Moreover, although the inventory appears to include some emissions from vessels, harborcraft, and cargo handling equipment (*id.* at 27), it is not clear that the inventory includes all emissions related to operations at the Port of Hueneme.

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Finally, recent data collected by the National Aeronautics and Space Administration (“NASA”), indicates that emissions from a handful of sites (or “super emitters”) account for the vast majority of California’s methane emissions. *See*, Bloomberg News article, “NASA Flew Gas Detectors Above California, Found ‘Super Emitters’”, November 7, 2019, attached as Exhibit 7; <https://climate.nasa.gov/news/2930/a-third-of-california-methane-traced-to-a-few-super-emitters/> news article, attached as Exhibit 8; and <https://methane.jpl.nasa.gov/>. Of the “super emitters” identified around the State, oil and gas operations accounted for 26 percent of all source emissions.

Several of these “super emitters” are located in Ventura County. *See* Ventura County Methane Plume Data, attached as Exhibit 9. They include, but are not limited to, the Ventura Oil Field, Rincon Oil Field, Bardsdale Oil Field, and South Mountain Oil Field, which were all mapped as emitting methane plumes. Methane is a greenhouse gas that is at least 85 times more potent than carbon dioxide at trapping heat and contributing to global warming over the 20-year period covered by the General Plan.² Therefore, addressing these emissions is critical for the County to meet emission reduction targets required under State law.

Despite this available data, the County’s Draft Plan and DEIR failed to disclose these emissions, analyze their impacts, or identify feasible measures to ensure emission reductions over the life of the Plan. The result is a CAP that presents flawed baseline data of GHG emissions that undermines the entire planning process. Without an accurate baseline inventory, the DEIR’s projected future emissions from the oil and gas sector (see

O20-6
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² Current scientific evidence concerning the global warming potential of methane over different time scales is discussed in detail in CFROG’s comments on the Preliminary Draft Plan. *See* June 5, 2019 Comments at 16-18 and cited references. Specifically, according to the Intergovernmental Panel on Climate Change’s most recent Assessment Report, methane is 85-87 times more potent than carbon dioxide over a 20-year time period, accounting for climate-carbon feedbacks and additional warming from methane oxidation. Myhre, G., et al., 2013: Anthropogenic and Natural Radiative Forcing at 714 (Table 8.7). In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Available at https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf. An excerpt from the IPCC report is attached as Exhibit 10.

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DEIR, Appendix D at 45) have no evidentiary basis. Inasmuch as the County permits oil and gas operations in unincorporated lands in the County, the County has an obligation to consider these emissions and take concrete steps to limit them in the future. The failure to do so renders the CAP fatally flawed. A revised CAP must correct this flaw and include a comprehensive inventory of all emissions, including all emissions from oil and gas operations.

O20-6
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B. Emission Forecasts are Inadequately Supported.

Projections of “business as usual” emissions from the oil and gas sector in the CAP and DEIR lack adequate justification and support. The DEIR assumes oil and gas production will increase by more than one million barrels per year between 2015 and 2040. DEIR Appendix D at 45. Stationary sources are projected not only to remain a significant source of emissions in the County, but also to continue increasing, through 2050. Draft Plan at B-10 (Table B-4).

Appendix B appears to use “County-specific demographic” projections—presumably population growth—as the basis for its future emissions projections, although the precise methodology used is not explained. *See* Draft Plan at B-10. The DEIR similarly bases its projections on “growth rates for population, employment and housing” forecast by the Southern California Association of Governments.” DEIR at 4.8-5. Yet neither document explains why stationary source emissions from in-County oil and gas development would be expected to increase due to County population growth. As we noted in our prior comments, the document offers no basis for assuming that local oil and gas development is driven by local population growth in the same manner as transportation or residential or commercial development. Put another way, neither the Draft Plan nor the DEIR offer evidence that local *demand* for oil and gas drives local *production* of oil and gas (or, put another way, that local oil and gas production tracks generic projections of County growth in a linear fashion).

O20-7
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Nor do the Draft Plan or DEIR provide any evidence to support the assumption that County oil and gas production will continue to increase through 2050. *See* DEIR, Appendix D at 45. California production has been declining for many years. *See, e.g.*, U.S. Energy Information Administration, California Field Production of Crude Oil 1980-2018 (attached as Exhibit 3 to June 5, 2019 letter); DOGGR 2017 (attached as Exhibit 2 to June 5, 2019 letter) at 5. The DEIR’s assumptions thus appear contrary to the evidence. To the extent some other assumptions lie behind the projected increase in emissions—for example, that production might increase as a result of new or expanded enhanced oil recovery technologies—Appendix B fails to explain what they are.

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In fact, Appendix B’s projected increase in production is contrary to state policy and trends. Statewide efforts to decarbonize the electrical grid, electrify the transportation sector, and increase building energy efficiency should reduce local demand for oil and gas significantly over the next several decades. As discussed above, the state is actively planning to transition away from fossil fuels—including reductions in both demand and supply—by 2045. *See Exhibits 2, 3, 4 [Budget Act; Carbon Neutrality Studies Scope of Work 1 and 2].* Unfortunately, the discussion of statewide legislation and policy that could reduce fossil fuel demand and emissions in coming years (Draft Plan at B-11) is incomplete; for example, it does not include Zero Net Energy improvements to the Building Code or incentives for electric vehicles. Nor does Appendix B mention the state’s Short-Lived Climate Pollutant strategy. In short, Appendix B’s forecast increase in stationary source emissions lacks adequate support and analysis.

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Finally, planning for continued expansion of Ventura County oil and gas production flies in the face of both overwhelming climate science and clear state policy. Nowhere do the Draft Plan or the DEIR adequately disclose or analyze the consequences of this approach or its blatant inconsistency with statewide GHG reduction plans and programs. *See CEQA Guidelines, § 15125(d).*

C. The Draft Plan Presents Vague Measures That Cannot Produce the Necessary Emission Reductions and Improperly Defers Development of Implementation Programs.

Appendix B’s most fundamental weakness may be its failure to identify a set of GHG reduction measures that comes anywhere close to achieving the County’s desired targets and goals. The Draft Plan offers only a vague assurance that the “County shall reduce GHG emissions” through “combination of measures included in the GHG Strategy” (Draft Plan at B-15; Policy COS-10.4), but never addresses how that “combination of measures” will reduce emissions by the amounts necessary.

O20-8

Indeed, many of the “CAP” measures collected in Appendix B from various other elements of the General Plan represent only soft, unquantifiable commitments to “encourage” or “promote” various actions (see section II.B below for specific examples). Although hortatory, qualitative measures of this sort may be appropriate to supplement more concrete requirements, identification of specific, enforceable measures and quantification of resulting emissions reductions are required to demonstrate consistency with quantitative targets and goals. Enforceable, concrete commitments to mitigation also are required under CEQA. Neither the Draft Plan nor the DEIR contains adequate measures of this kind.

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D. The CAP and DEIR Fail to Provide Adequate Mitigation to Reduce the Plan’s Emissions.

The DEIR acknowledges that GHG emissions under the proposed Plan would be significant, even with proposed mitigation measures. DEIR at 4.8-49. The DEIR also acknowledges that the Draft Plan would result in future GHG emissions that exceed the State’s 2030 and post-2030 targets for emission reduction. DEIR at 4.8-52. However, the DEIR fails to identify feasible mitigation measures that will lessen these significant impacts.

Under CEQA, mitigation measures proposed in an EIR must be “fully enforceable” through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code § 21081.6(b); CEQA Guidelines §15126.4(a)(2). As the DEIR itself admits, a substantial number of the programs and policies proposed in the Plan will not result in quantifiable emissions reductions and thus cannot be counted on to mitigate the Plan’s significant GHG impacts. DEIR at 4.8-50. As discussed in more detail in section III.B of this letter below, the programs and policies in the General Plan are unlikely to reduce the Project’s impacts because of their voluntary, flexible, and unenforceable nature. Here, the proposed policies are vague and include directory terms like “as appropriate,” “where feasible” and “support,” rather than mandatory terms like “require,” “reduce,” and “deny.”

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Moreover, the Draft Plan and DEIR fail to adequately address methane emissions from the oil and gas sector. The Plan includes programs to address methane emissions from the waste (e.g., PFS-L), water (e.g., Program WR-G) and agriculture (e.g., Programs AG-I, AG-J, and AG-K) sectors. DEIR at 4.8-44. The Plan, however, omits policies, programs, or mitigation measures to reduce methane emissions from oil and gas operations. This omission should be corrected through additional mitigation measures that will effectively limit expansion of oil and gas operations in the County and actively transition the County’s economy away from fossil fuels. See, sections III B and C of this letter below for specific policy recommendations related to GHG emissions reductions.

O20-10

Finally, the DEIR improperly attempts to avoid responsibility for proposing mitigation by claiming the County has no authority “to enforce measures that may potentially infringe upon private property rights, reduce the economic competitiveness of local businesses, or inhibit the ability for residents to travel between residences, jobs, and amenities.” DEIR at 4.8-49; *see also id.* at 4.8-39, 4.8-52. While the County obviously must operate within constitutional limits, the DEIR’s attempt to disclaim any authority to control activities within its jurisdiction is overbroad to the point of abdication. For more than a century, courts have recognized that local governments may exercise their police

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powers despite resulting impingements upon property rights and economic competitiveness. *See, e.g., Hadacheck v. Sebastian* (1915) 239 U.S. 394, 409-10. Moreover, to the extent the DEIR is claiming that any additional mitigation (particularly with respect to existing land uses) would be legally infeasible, its conclusory statements regarding lack of authority fall far short of CEQA’s requirements. *See, e.g., City of San Diego v. Board of Trustees of California State University* (2015) 61 Cal.4th 945, 956 (“An EIR that incorrectly disclaims the power and duty to mitigate identified environmental effects based on erroneous legal assumptions is not sufficient as an informative document.”) (internal quotation omitted). “In mitigating the effects of its projects, a public agency has access to all of its discretionary powers . . . includ[ing] such actions as adopting changes to proposed projects, imposing conditions on their approval, adopting plans or ordinances to control a broad class of projects, and choosing alternative projects.” *Id.* at 959. The DEIR’s attempt to abdicate the County’s regulatory and police power authority has no legal basis and cannot support any finding of infeasibility.

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The DEIR also appears to conclude that the County may weigh the Draft Plan’s asserted economic and other benefits against its environmental consequences without first proposing and adopting all feasible measures to mitigate or avoid significant effects. *See* DEIR at 4.8-49, 4.8-52. This conclusion rests on a misinterpretation of CEQA. An agency must properly find that mitigation and alternatives are infeasible *before* engaging in any balancing of benefits and harms. *See* Pub. Resources Code § 21081(a)(3), (b); CEQA Guidelines § 15092(b)(2). The County may not disclaim its responsibility to develop feasible mitigation by prematurely claiming that the project’s benefits outweigh its environmental drawbacks.

O20-12

E. The Draft Plan’s “GHG Strategy” Does Not Satisfy the Requirements for CEQA Streamlining.

As pointed out in our prior comments, the Draft Plan (and the portions of the Draft Plan comprising the “GHG Strategy” or CAP) fails to provide any basis for streamlining analysis of the cumulative climate impacts of subsequent projects based on consistency with the General Plan or CAP. *See* CEQA Guidelines § 15183.5. The DEIR correctly proposes to eliminate one express reference to streamlining based on the CAP. The Draft Plan and the County’s Initial Study Assessment Guidelines, however, should be revised to make explicit that neither the General Plan nor the CAP contains sufficient specific, enforceable GHG reduction measures to support streamlined CEQA review of future projects.

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Proposed Implementation Program COS-EE (Draft Plan at B-20) would allow streamlined GHG emissions analysis for projects demonstrating that: the project is

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consistent with current general plan and zoning designations; that the project incorporates all applicable GHG reduction measures in Appendix B to the General Plan; and the project “clearly demonstrates the method, timing, and process for which the project will comply with applicable GHG reduction measures and/or conditions of approval. Draft Plan, Appendix B at B-20 and B-2. As drafted, however, the CAP falls far short of the requirements of CEQA Guidelines section 15183.5. In order to support a determination that CAP consistency eliminates significant climate effects, a CAP must (among other things) clearly demonstrate that its prescribed measures will actually achieve the reductions necessary to attain the CAP’s stated goals. CEQA Guidelines § 15183.5(b)(1)(D). As discussed above, the CAP provides no basis for such a conclusion.

The DEIR proposes a mitigation measure that deletes Implementation Program COS-EE, purportedly on the ground that project-specific review may ensure greater emissions reductions over time than compliance with generic measures in the General Plan and CAP. *See* DEIR at 2-34 and 2-35, MM GHG-3. We agree that Implementation Program COS-EE should be removed from the Draft Plan, and that rigorous review of the climate impacts of future discretionary projects should be required. Until such time as the General Plan identifies policies and programs that lead to quantifiable emission reductions adequate to achieve the Plan’s stated goals, streamlining environmental review would be unlawful. For this reason, CFROG requests not only that Implementation Program COS-EE be deleted, but also that the Draft Plan and CAP be revised (1) to remove other references to streamlined analysis of future projects (*see, e.g.*, Draft Plan at 12-4, B-3, B-5, B-24 to B-24, B-57), and (2) to expressly state that the General Plan and GHG Strategy are neither sufficient nor intended to be used to support streamlined environmental analysis under CEQA Guidelines section 15183.5. The DEIR similarly must be revised to remove references to CEQA streamlining based on the General Plan or CAP. *See, e.g.*, DEIR at 4.8-4.

O20-13
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II. The Draft Plan Must Ensure Lawful Application of Air Quality Thresholds.

As discussed in our June 5, 2019 comments, CFROG strongly supports retaining existing air quality thresholds in the Ojai Valley Area Plan. CFROG is pleased to see that these provisions have been carried forward into the Draft Plan as Goal OV-55 and Policy OV-55.1. Draft Plan at OV-30. However, as CFROG’s prior comments pointed out, the rest of the County is still subject to a much higher air quality threshold. June 5, 2019 Comments at 12. Those prior comments recommended a policy that would commit the County to adopting more stringent air quality thresholds outside the Ojai Planning Area. *Id.* That policy should be considered as an additional mitigation measure for the Draft Plan’s impacts on air quality.

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Furthermore, all County air quality thresholds must be interpreted and applied in a manner consistent with CEQA. Our June 5, 2019 comments detailed the ways in which the current Air Quality Assessment Guidelines violate CEQA. June 5, 2019 Comments at 6-10. For this reason, CFROG appreciates the clarifications in Policy HAZ-10.11. In keeping with the revised policy, both the Air Quality Assessment Guidelines and the Initial Study Assessment Guidelines must be revised in a manner that reflects CEQA’s requirements as outlined in our June 5, 2019 comments.

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III. The DEIR for the 2040 General Plan Fails to Comply with CEQA.

A. The DEIR’s Proposed Measures to Weaken General Plan GHG Reduction Policies Lack Support.

The Draft Plan includes policies that would reduce GHG emissions from both trucking and flaring associated with oil and gas production. The DEIR proposes “mitigation measures” that would water down both policies, but fails to establish any legal or evidentiary basis for doing so.

1. Mitigation Measure PR-2 (Weakening Pipeline Requirements)

Currently, oil and produced water from local oil wells are largely transported by truck. Trucking these oil production by-products creates safety hazards on County roads, exposes residents to toxic diesel pollution, and causes substantial amounts of greenhouse gas emissions due to truck vehicle miles travelled. In response to direction from the County Board of Supervisors, the Draft Plan includes Policy COS-7.7: Conveyance for Oil and Produced Water, which addresses this problem by requiring newly permitted oil wells to use pipelines instead of trucks to transport oil and produced water.

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The DEIR concludes that, because oil operators located beyond a two-mile radius of a major oil transmission pipeline are likely small producers not extracting a large amount of oil, the added costs to these oil companies of constructing pipeline connections make this policy infeasible to implement and may lead to a loss of petroleum resources. DEIR at 4.12-26. The DEIR therefore proposes Mitigation Measure PR-2, which would revise Policy COS-7.7 to allow trucking if the project proponent demonstrates that conveying water or gas by pipeline would be infeasible. *Id.* at 4.12-31. There are numerous flaws with the DEIR’s approach.

First, the DEIR provides no evidence that the cost of constructing pipelines would make continued extraction economically impractical. *See Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1352, 1357 (evidence must show

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alternative is economically impracticable, not merely more expensive, to support finding of infeasibility). The DEIR cites one project that would have required a 6- to 10-mile pipeline as an example (DEIR at 4.12-23 to 4.12-24), but it provides no comprehensive economic analysis or other evidence to support its assumption that all operators more than two miles from an existing pipeline likely would have to transport oil and water by truck. *See id.* at 4.12-25 to 4.12-26. Therefore, the DEIR's proposal lacks the evidentiary support CEQA requires.

The DEIR's assumption that all operators located more than two miles from a pipeline are "smaller oil producing operations that are not extracting a large amount of oil" (DEIR at 4.12-26) particularly lacks factual support. Indeed, a review of oil and gas wells located in Ventura County on the California Geologic Energy Management Division ("CalGEM", formerly DOGGR) website provides evidence to the contrary. For example, two of the largest clusters of active oil wells outside the two-mile radius from major transmission lines in the County are in the Timber Canyon oilfield and in the Sespe oilfield. *See*, <https://maps.conservation.ca.gov/doggr/wellfinder/#/-119.00532/34.42770/12> and DEIR at 4.12-25, Figure 4.12-4. Carbon California owns both the Timber Canyon and Sespe oilfields and operates oil wells in both fields. *See* Carbon Energy Corporation Corporate Overview 2019, at 13 attached as Exhibit 11. Carbon California does not fit the profile of a "smaller oil producing operations that are not extracting a large amount of oil." DEIR at 4.12-26. As indicated in a 2019 Air Pollution Control District filing, Carbon California represented that it produces \$300,000 of oil a month or 12% of Carbon's total California production income at Timber Canyon alone. Ventura County Air Pollution Control District, Order Granting Interim Variance, Hearing Board Case No. 878 at 4 (August 26, 2019), attached as Exhibit 12. A revised analysis must evaluate ownership of existing wells outside the two-mile radius from transmission lines, the existing number of wells that already reinject their waste water into wells or already transmit it via pipeline, and the degree to which oil operators can reasonably be expected to consolidate operations to make construction of new transmission lines feasible.

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Second, the DEIR provides no criteria for determining whether a project applicant has adequately demonstrated that conveying oil and water by pipeline is infeasible. Instead, Mitigation Measure PR-2 would delegate the feasibility finding to unnamed planning staff. Under CEQA, the lead agency has to determine the feasibility of a project (or by extension, mitigation measures associated with the project) by making written, public findings when the project is approved. Pub. Resources Code § 21081(a); CEQA Guidelines §§ 15091, 15092. CEQA prohibits delegation of the responsibility to adopt findings regarding the feasibility of mitigation. CEQA Guidelines § 15025(b)(2). The

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revised policy would delegate far more than the simple responsibility to implement mitigation. Rather, Mitigation Measure PR-2 would require County staff to make fundamental policy decisions that affect County residents' public and social health—decisions CEQA requires the County itself to make, in written findings on the record, supported by substantial evidence.

Third, and relatedly, Mitigation Measure PR-2 violate CEQA by improperly deferring formulation of mitigation. Again, the measure permits County staff to allow trucking of oil and produced water if “the proponent demonstrates” that conveyance by pipeline is infeasible. DEIR at 4.12-31. However, as noted above, the measure does not specify any criteria for infeasibility and provides no specific requirements for analysis or documentation related to feasibility. Absent any explicit criteria, County staff could allow trucking of oil and produced water whenever oil producers simply *claim* infeasibility—benefiting oil company profits while exacerbating climate change and saddling County residents with toxic air emissions and safety hazards. Indeed, just this week, the California Court of Appeal invalidated a mitigation measure that required applicants to take certain actions “to the extent feasible,” finding the measure both improperly deferred and inconsistent with CEQA’s purpose. *See King & Gardiner Farms, LLC v. County of Kern*, No. F077656 (Cal. App. 5 Dist., filed Feb. 25, 2020), slip op. at 40-41.

O20-17
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Generally, mitigation measures should not be deferred nor findings of feasibility delegated to staff. CEQA Guidelines, §§ 15126.4(a)(1)(B), 15025(b)(2). A lead agency may legally defer mitigation under CEQA only if it (1) “adopt[s] specific performance criteria that the mitigation measures were required to satisfy”; (2) shows that “practical considerations prevented the formulation of mitigation measures at the usual time in the planning process;” (3) “commit[s] itself to formulating the mitigation measures in the future.” *POET, LLC v. State Air Resources Bd.* (2013) 218 Cal.App.4th 681, 736.) With respect to the proposed revisions to Policy COS-7.7, the County fails to meet any of these requirements.

In sum, as revised by Mitigation Measure PR-2, Policy COS-7.7 would provide no guidance or concrete performance standards on how feasibility determinations must be made. Staff’s determinations, made long after the approval of the Draft Plan, would take place out of public view and without a hearing. “[P]ublic participation is an essential part of the CEQA process.” *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 467 (internal quotation omitted). Delegating fundamental feasibility findings to unelected staff, without any criteria or performance standards, violates CEQA.

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2. Mitigation Measure PR-3 (Weakening Gas Collection Requirements and Flaring Limitations)

Mitigation Measure PR-3 suffers from the same fundamental deficiencies as Mitigation Measure PR-2, discussed above. Mitigation Measure PR-3 would revise Policy COS-7.8: Limited Gas Collection, Use, and Disposal. This policy as proposed in the Draft Plan requires that gases from all new discretionary oil and gas wells be collected for use, sale or proper disposal. Draft Plan, Appendix B at 6-13. The DEIR concludes that Policy COS-7.8 could prove too costly for new discretionary oil and gas wells located outside of a two-mile radius of a major gas transmission pipeline. DEIR at 4.12-30. The DEIR therefore proposes a mitigation measure that revises Policy COS-7.8 to allow flaring and venting outside of emergency situations if the proponent ‘demonstrates’ that conducting operations without flaring is deemed infeasible. *Id.* But here too, the DEIR fails to provide evidentiary support for its assumptions, improperly delegates fundamental feasibility findings to unelected staff, and improperly defers mitigation by failing to provide criteria or performance standards for evaluating claims of infeasibility. For the same reasons discussed above in connection with Mitigation Measure PR-2, the DEIR’s approach does not comport with CEQA.

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In sum, Mitigation Measures PR-2 and PR-3 provide no specific performance criteria that prescribe how the mitigation measure’s goals will be met, let alone provide adequate direction for County staff. As proposed, the mitigation measures would create a loophole allowing oil companies to escape compliance with Policies COS-7.7 and 7.8 simply by claiming that the cost of a pipeline connection or of gas collection is too high. Because Mitigation Measures PR-2 and PR-3 have no concrete performance standards for determinations of feasibility or how the measures’ goals can be achieved, offer no reason as to why the mitigation could not have been developed, and commit only to the most illusory of measures, mitigation is improperly deferred.

Accordingly, the County should maintain both policies as recommended by the Board of Supervisors and as presented in the Draft Plan. All newly permitted discretionary oil wells should be required to convey oil and produced water via pipelines, and all gases produced from new discretionary oil and gas wells should be collected for use, sale or proper disposal.

B. Merely Hortatory General Plan Policies Are Inadequate as Mitigation for CEQA Purposes.

Mitigation measures proposed in an EIR must be “fully enforceable” through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code §

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21081.6(b); CEQA Guidelines § 15126.4(a)(2). Many of the General Plan’s policies and programs relied on to mitigate impacts related to GHG emissions are vague, optional, directory, or otherwise unenforceable. These policies should be made mandatory. A few examples—out of numerous instances—include the following:

- LU-11.4 Sustainable Technologies: *The County shall encourage discretionary development on commercial and industrial- designated land to incorporate sustainable technologies....* Draft Plan Appendix B at B-31. (This policy is optional and unenforceable; the word “require” should replace “encourage.”)
- LU-18.5 Participation in Climate Change Planning: *The County shall encourage stakeholders in designated disadvantaged communities who are vulnerable to sea level rise or other climate change impacts to have the opportunity to learn about and participate in the decision-making process for adaptation planning within Ventura County.* Draft Plan Appendix B at B-32. (This policy is optional and unenforceable; the word “encourage” should be replaced with “provide opportunities for”; this policy should have an accompanying implementation program that specifies the sort of opportunities the County will provide to facilitate public participation.)
- PFS-2.1 Sustainable Plans and Operations: *The County shall encourage energy efficiency, greenhouse gas reduction features, and resiliency planning into County facility and service plans and operations.* Draft Plan Appendix B at B -43. (This policy is optional and unenforceable; the word “require” should replace “encourage.”)
- COS-7.4 Electrically-Powered Equipment for Oil and Gas Exploration and Production. *The County shall require discretionary development for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible....* Draft Plan Appendix B at B -49. (This policy is vague and unenforceable, improperly delegates feasibility findings to staff, and provides no criteria or performance standard for determining feasibility.)
- Program AG-K: *reduce the amount of water that needs to be treated, pumped and conveyed, which requires the use of energy”* Draft Plan at 4.8-41. (This policy is vague and unenforceable as it provides no guidance as to

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quantities that could be treated, specific treatment methods, or other information on how the County would implement this program.)

Related Implementation Program K: Water-Saving Irrigation Techniques Program is equally unenforceable as it directs the County only to collaborate with and support the UC Cooperative Extension Office educational programs and does not require the agency to take any specific action.

- COS-M Oil and Gas Tax: *The County shall evaluate the feasibility of establishing a local tax on oil and gas operations located in the unincorporated county.* Draft Plan Appendix B at B53. (This policy is vague, unenforceable and voluntary as it does not commit the County to taking any concrete steps toward implementing a tax beyond evaluating its feasibility. The policy should be revised to state “The County shall, by January 1, 2022, evaluate the feasibility of establishing a local tax on oil and gas operations located in the unincorporated county, and if the County determines any such tax is feasible, it shall, by January 1, 2023, develop and propose such a tax measure for voter approval.”)
- HAZ-10.1: Air Pollutant Reduction Consistent with the General Plan: The County shall strive to reduce air pollutants from stationary and mobile sources to protect human health and welfare, focusing efforts on shifting patterns and practices that contribute to the areas with the highest pollution exposures and health impacts. Draft Plan Appendix B at B59. (This policy is optional and unenforceable; the words “achieve substantial reductions of” should replace “strive to reduce.”)

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A general plan’s goals and policies are frequently somewhat vague and aspirational. However, the County may rely on such policies to mitigate environmental impacts under CEQA *only if* they represent firm, enforceable commitments. *See Napa Citizens for Honest Gov. v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 358 (citing *Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351, 377). CEQA requires that mitigation measures actually be implemented—not merely adopted and then disregarded. *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1186-87; *Federation of Hillside & Canyon Assns. v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261.

Here, the proposed Plan’s vague and noncommittal policies and programs (and policies for which no implementation programs are identified) do not enforceably commit

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the County to specific actions and thus fail to mitigate impacts. Moreover, DEIR proposed Mitigation Measure GHG-4 (New Implementation Program HAZ-X: Greenhouse Gas Reduction Policy Enhancement) fails to remedy the aforementioned failures. Mitigation Measure GHG-4 directs the Climate Emergency Council, to be established under Policy COS-CC, to develop subprograms that “may” include expansions to programs in the General Plan. DEIR at 4.8-47. Aside from the fact that the measure itself indicates that expansion of emission reduction programs is uncertain through use of the word “may,” this mitigation measure again defers identification of feasible, effective measures needed to reduce significant impacts. As discussed above, this approach is unlawful. CEQA Guidelines, §§ 15126.4(a)(1)(B).

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Because the DEIR cannot ensure that the referenced policies will in fact be implemented to mitigate the proposed Plan’s impacts, and because the proposed mitigation further defers identification of mitigation, the policies and measures cannot serve as CEQA mitigation. *See Anderson First*, 130 Cal.App.4th at 1186-87.

C. The DEIR Has An Obligation to Consider Additional General Plan Policies That Would Mitigate the Significant Environmental Effects of Oil and Gas Development.

As indicated in our earlier comments, CFROG is concerned about the effects of oil and gas drilling on communities within the County and more broadly. The drilling and maintenance of oil and gas wells contribute to: local air pollution, climate change, contamination of water supplies, and risks to public health and safety. To this end, the County General Plan should do more to ensure protection of the County’s natural resources and to preserve quality of life for all the County’s residents.

O20-20

1. Land Use Element

a. Climate and Public Health Alternative: Prohibit New Oil and Gas Development

Continued and expanded oil and gas production runs counter to the state’s 2030 and 2050 GHG reduction goals. *See Health & Safety Code §§ 38550, 38566; Executive Order S-3-05.* Expanded production also runs directly counter to state efforts to reduce both demand and supply of fossil fuels and to achieve carbon neutrality by 2045. Accordingly, in its comments on the Preliminary Draft Plan, CFROG recommended policies that would prohibit new oil and gas development in the County. *See June 5, 2019 Comments at 3-5.*

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As those policies were not evaluated in the DEIR, CFROG once again proposes that the following new policies³ be added to the General Plan Land Use Element as mitigation measures and/or as part of a “Climate and Public Health Alternative” that would reduce the significant impacts of oil and gas development:

Policy LU-xx Prohibition of New Oil and Gas Extraction. The development, construction, installation, or use of any new facility, appurtenance, or above-ground equipment, whether temporary or permanent, mobile or fixed, accessory or principal, for petroleum extraction is prohibited on all lands within the County’s unincorporated area as a reasonable means of reducing greenhouse gas emissions and protecting the health and welfare of residents consistent with federal and state law.

Existing oil and gas operations would become nonconforming uses under this policy. Those uses, in turn, should be phased out according to a schedule that acknowledges vested rights and constitutional limitations while simultaneously supporting statewide efforts to reduce both supply and demand of fossil fuels. CFROG thus recommends that the following policies and implementation program be added to the General Plan, again either as mitigation measures or as part of an alternative that would reduce significant environmental impacts:

Policy LU-xx Existing Oil and Gas Facilities. Oil and gas extraction land uses lawfully existing on [the effective date of the General Plan Update] may continue as nonconforming uses to the extent allowed under State and local law until they are phased out pursuant to Policy LU-xx. Such uses, while they are continuing, shall not be enlarged, increased, extended, or otherwise expanded or intensified.

Policy LU-xx Phase-Out of Nonconforming Oil and Gas Operations. Nonconforming oil and gas extraction land uses shall be terminated within the shortest period of time necessary to ensure recovery of capital investments and compliance with constitutional limitations.

Implementation Program LU-X: To implement Policies LU-xx, xx, and xx [Prohibition, Existing Facilities, and Phase-Out], on or before January 1, 2022, the County shall develop and propose for adoption an ordinance providing for amortization of non-conforming oil and gas land uses, notice and hearing requirements, and any other provisions necessary to phase out such uses in a manner consistent with state and federal

³ The policies proposed in this letter are substantively equivalent to the policies proposed in CFROG’s June 5, 2019 Comments, although the specific wording of some proposals has been revised.

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law. The ordinance shall contain provisions sufficient to ensure that all non-conforming oil and gas uses will be discontinued no later than 2045 unless discontinuance is expressly prohibited or precluded by state or federal law.

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b. Discretionary Review and Permitting

In the absence of a complete prohibition on new wells, the County should require all new oil wells and proposed expansions at existing facilities to obtain discretionary permits. As discussed in our prior comments, under current Ventura County policies and practices, the vast majority of oil and gas development in the County is not subject to local CEQA review or conformance with current County policies and regulations. This is because the County requires only a zoning clearance for any additional oil wells drilled within the extensive areas covered by antiquated special use permits. Under current County practices, these zoning clearances are considered to be ministerial and thus do not trigger CEQA’s environmental review and mitigation requirements. We also understand that the County has not been requiring compliance with updated regulations for these clearances.

CFROG appreciates that the Board of Supervisors recently directed County staff to prepare an ordinance requiring discretionary review of new and expanded oil and gas operations at facilities subject to antiquated special use permits. However, CFROG strongly believes that a policy requiring such review should be included in the General Plan.

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The Draft Plan includes policies requiring new or modified *discretionary* oil and gas development to comply with current policies, standards, and conditions (Policy COS-7.3) and for new discretionary oil and gas development to use electrically-powered equipment (Policy COS-7.4) and to restore and revegetate the site after production (Policy COS-7.5). However, these policies apply only if a Project is subject to issuance of a discretionary permit. Because the Draft Plan does not require discretionary review for all new and expanded oil and gas operations, the Draft Plan and its DEIR fail to ensure that such operations will comply with new policies and programs to reduce GHG emissions, as well as address other impacts.

CFROG proposes the following policies to ensure that any new or expanded wells undergo discretionary review.

Policy LU-xx Renewal of Oil and Gas Facility Permits. All applications for renewal of oil and gas facility permits shall undergo discretionary review and shall be subject to updated air emissions requirements and other standards and conditions related

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to oil and gas operations. Terms of renewed permits shall be limited in duration to the reasonably expected life of the wells.

Policy LU-xx Expansion of Existing Oil and Gas Operations. Proposed changes to or expansions of existing oil and gas sites, facilities, or activities shall undergo discretionary review to ensure compliance with updated regulations and appropriate environmental review pursuant to the California Environmental Quality Act.

Policy LU-xx Discretionary Review of All New Wells. Discretionary review shall be required for the drilling or construction of any new well, and for the re-drilling or deepening of any existing well, unless any such drilling, construction, re-drilling, or deepening is specifically identified by location and number or specifically authorized in an active discretionary permit. Policy LU-xx Inspection and Monitoring of Oil and Gas Facilities. Approved expansions of existing oil and gas operations shall be conditioned to require monitoring through installation of continuous emission monitoring systems (CEMS) for air quality emissions and continuous effluent quality monitoring system (CEQMS) for water pollution to detect emissions and plumes in real time.

These proposed policies are intended not only to support adoption of the ordinance that the Board of Supervisors directed staff to develop in September 2019, but also to reinforce existing County Code provisions requiring new oil and gas development to be authorized by a discretionary conditional use permit. *See* Non-Coastal Zoning Ordinance [“NCZO”], §§ 8105-4 and 8105-5, “Mineral Resource Development,” and “Oil and Gas Exploration and Production”; Coastal Zoning Ordinance [“CZO”], § 8174-5, under heading “Oil and Gas: Exploration and Production”). Similarly, these policies would support County Code provisions requiring discretionary approval in through permit modification for any material change to an existing permit. *See* NCZO, § 8111-6.1; CZO, § 8181-10.4.) These policies would reduce the overall impacts of oil and gas development by ensuring discretionary review, and site-specific mitigation and monitoring following CEQA review.

O20-22
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Likewise, we propose the following General Plan policy to address oil and gas facility operations and expansions under Antiquated Conditional Use Permits.

Policy LU-xx Oil and Gas Facilities Operating with Antiquated Conditional Use Permits. All oil and gas exploration and production operations, including legally existing operations lacking discretionary permits under the County Zoning Ordinance, are automatically subject to all requirements of the County Zoning Ordinance, General Plan, and other local regulations and standards relating to oil and gas exploration, extraction,

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and production, except to the extent that application of such regulations or standards would impair a vested right under state law.

This policy is feasible as evidenced by County Counsel’s position⁴ regarding the feasibility of amending the County Code to include a provision requiring antiquated conditional use permits to be and consistent with the Board’s direction to staff to update the County Code accordingly. Letter Report from County Counsel, Leroy Smith, to the County Board of Supervisors dated September 10, 2019, at 4, attached as Exhibit 13.

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Finally, CFROG previously proposed a policy that would prohibit extreme extraction methods like well stimulation treatments (including fracking) and cyclic steaming for tar sands production. June 5, 2019 Comments at 6. The DEIR did not evaluate this proposed policy. This policy should be evaluated as a mitigation measure for air quality, greenhouse gases, toxic and seismic hazards, and water quality and supply, all of which are adversely affected by extreme extraction.

O20-23

Policy LU-xx Prohibit Extreme Extraction. The development, construction, installation, or use of any facility, appurtenance, or above-ground equipment, whether temporary or permanent, mobile or fixed, accessory or principal, for well stimulation treatments, cyclic steaming, and steam flooding are prohibited on all lands within the County’s unincorporated area.

2. Conservation and Open Space Element

a. Oil and Gas Resources

The Conservation and Open Space Element’s proposed policies related to oil and gas resources are also lacking specificity and enforceability. CFROG proposes the revisions to the following proposed General Plan policies:

COS-7.5 Restoration and Revegetation of Sites Used for Oil and Gas Exploration, Extraction, and Production. The County shall require that discretionary development for oil and gas exploration activities and all existing oil and gas development undergoing permit review be conditioned to require the restoration and revegetation of the site if the exploration does not result in oil and gas production facilities or when production activities are terminated.

O20-24

⁴ “The County has a good legal argument that it can, in general, require newly proposed oil and gas development under antiquated permits to obtain authorization through a discretionary permit modification.” See Exhibit 13, at 4.

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COS-7.6 Abandoned Oil and Gas Well Identification. The County shall evaluate discretionary development to identify any abandoned oil and gas wells ~~on the project site~~ on all oil and gas operation sites.

In addition, CFROG proposes the following new policies be added to the Conservation and Open Space Element:

Policy COS-xx Nonconforming Oil and Gas Operations. The County shall actively work to discontinue nonconforming oil and gas extraction uses.

Policy COS-xx Review of Existing Permits. The County shall review all oil and gas permits that are 10 years or older to ensure that they are compliant with current standards and regulations to the maximum extent permitted by law.

Policy COS-xx Abandoned Oil and Gas Well Remediation. To prevent contamination of groundwater and leaks to the surface, the County shall require all abandoned oil and gas wells to be cleared of all equipment, plugged, capped and fully remediated in accordance with State and federal requirements within 60 days of ceasing operations.

Policy COS-xx Reuse of Abandoned Oil Fields. The County shall require the reclamation of abandoned oil fields to productive second uses.

Policy COS-xx Off-shore Oil Drilling. The County shall oppose any proposals for new or expanded off-shore oil drilling in the vicinity of Ventura County.

b. Energy Resource Conservation

CFROG recommends the following revisions to the proposed Energy Resource Conservation Policies:

Policy COS-8.1 Reduce Reliance on Fossil Fuels. The County shall promote the development and use of renewable energy resources (e.g., solar, thermal, wind, tidal, bioenergy, hydroelectricity) to reduce dependency on petroleum-based energy sources by developing and implementing incentives for alternative energy development and use.

Policy COS-8.7 Sustainable Building Practices. The County shall ~~promote~~ establish and require sustainable building practices that incorporate a “whole systems”

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approach for design and construction that consumes less energy, water, and other nonrenewable resources, such as by facilitating passive ventilation and effective use of daylight.

Policy COS-8.8 Renewable Energy Features in Discretionary Development. The County shall ~~encourage~~ require the integration of features that support the generation, transmission, efficient use, and storage of renewable energy sources in discretionary development.

Policy COS-8.9 Urban Tree Canopy Improvements for Energy Conservation. The County shall ~~encourage~~ require all discretionary development to include the planting of shade trees on each property and within parking areas to reduce radiation heat production.

In addition, CFROG proposes that the County add the following new policies related to energy resource conservation to further reduce GHG emissions:

Policy COS-xx Carbon-free Economy. The County will prioritize and facilitate a rapid transition to a carbon-free economy countywide.

Policy COS-xx Non-fossil Fuels for County Facilities and Fleets. The County will actively pursue a rapid transition to a diversity of non-fossil fuel alternatives for all County facilities and vehicle fleets.

Policy COS-xx Non-fossil Fuels Manufacturing and Distribution. The County will actively pursue, through the development of incentives and streamlined permit review, increasing a diversity of renewable energy manufacturing and distribution facilities countywide.

3. Hazards and Safety Element

The Draft Plan's Hazards and Public Safety element recognizes the threats being faced by the County, particularly climate change and seismic activity. Unfortunately, as CFROG pointed out in prior comments, the measures outlined in the Draft Plan are insufficient to protect County residents from these inevitable hazards and other adverse effects of oil and gas activity.

a. Protection from Seismic Hazards.

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O20-25

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The Draft Plan fails to provide adequate protection from identified hazards related to oil and gas pipelines. Specifically, Policy HAZ-4.2 requires oil and gas pipelines to avoid intersecting active faults to the extent possible. However, the policy includes no specific measures for pipelines that must cross a fault line to address steps that must be taken to prevent spills from ruptured lines. CFROG suggests additional policies for the County to consider that would address this omission:

Policy HAZ-xx Safety Standards for Cross Fault Line Pipelines. Gas or crude oil transmission and distribution pipelines which cross active or potentially active fault lines shall be subject to additional safety standards, including emergency shutoff capabilities.

Similarly, in proposed Policy HAZ-4.8, the County attempts to prohibit hazardous material storage facilities within areas prone to severe ground shaking. Yet, there is no mention of the detrimental effects of “fracking” or the injection of wastewater into underground geological formations for storage and disposal. Numerous studies have linked fracking to increased seismic activity. In a county crisscrossed by numerous active and potentially active faults, it is only reasonable for the County to consider the effects of fracking on increasing the likelihood of seismic events and the potential dangers associated with this method of resource extraction.

Additionally, the injection of wastewater into underground formations is also linked to increased seismic events, which could trigger a leak within the formation, which in turn may endanger the groundwater quality in the County. *See*, <https://www.usgs.gov/faqs/does-production-natural-gas-shales-cause-earthquakes-if-so-how-are-earthquakes-related-these> ; “The 2013–2016 induced earthquakes in Harper and Sumner Counties, southern Kansas,” Bulletin of the Seismological Society of America. Justin L. Rubinstein, William L. Ellsworth, and Sara L. Dougherty, available at <https://pubs.er.usgs.gov/publication/70195671> , abstract attached as Exhibit 14; *see also* “Studies link earthquakes to fracking in the Central and Eastern US,” Seismological Society of America, ScienceDaily April 26, 2019, available at <https://www.sciencedaily.com/releases/2019/04/190426110601.htm> , attached as Exhibit 15. Thus, we recommend the County add a policy requiring any fracking or wastewater disposal project to study the potential impacts of triggering seismic events and the impacts if a seismic event does occur. Such activities should not be allowed without a thorough understanding of the potential consequences and with plans in place to limit those negative consequences. To this extent, CFROG suggests adding a new policy to ensure that all injection into subsurface formations is done with a substantial understanding of the potential effects.

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Policy HAZ-xx Seismic and Geotechnical Studies for Well Injection. Require that applicant provide additional seismic and other geotechnical studies which demonstrate that there will be no increased risk of earthquakes, subsidence or related geologic issues resulting from extraction, drilling or injection activities, when within a fault zone.

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b. Compliance with Local, State, and Federal Regulations and Standards.

Proposed Policy HAZ-7.1 requires all discretionary permits for proposed oil and gas exploration and production projects to comply with local, state, and federal oil spill prevention regulations. This is insufficient. The County must do more to ensure its residents are safe and the environment protected from oil and gas exploration and production projects. As mentioned above, the County must include specific and quantifiable mitigation measures for existing development as well. While the policy contemplates compliance with local standards, the County does not have any standards in place to supplement federal and state regulations to address the specific problems being faced in Ventura County.

Additionally, state and federal regulations have changed and been updated. If a conditional use permit has been issued more than five years ago, the County should require inspection and enforcement of the existing conditions and evaluation if imposing new conditions would significantly improve the safety of such projects. Permits for operations involving hazardous substances also should be subject to discretionary renewal. To that end, CFROG suggests the County include the following policies in the draft plan:

O20-26

Policy HAZ-xx Maintain Compliance with Local, State, and Federal Oil Spill Prevention Regulations. Review all oil exploration and production development which has been approved more than five (5) years prior to the effective date of this General Plan for consistency with applicable local, state, and federal oil spill prevention regulations. Establish mitigation activities as needed to maintain the standards and conditions required when the permit was issued.

Policy HAZ-xx Review of Permits Involving Hazardous Materials. Permits for any oil exploration and production projects, and associated production facilities, involving the transport or use of hazardous materials must be effective for no longer than five years, and must be reviewed and either renewed, further conditioned, or denied prior to expiration.

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c. Increased Bonding Requirements to Ensure Proper Plugging and Abandonment, and Remediation of Oil Production and Exploration Sites.

Based on the wide array of impacts associated with oil and gas development, CFROG suggests that the County increase the bonding requirement to cover potential negative consequences from spills, failure to properly plug and abandon wells, and failure to properly remediate and restore the well site to other beneficial uses. The increased bonding requirement should be linked to proper plugging and abandonment after extraction has been finished. The oil and gas producers should plug the well and implement an abandonment plan. Such plans should be required prior to approval of the discretionary development and must be followed in the event that the well is deemed inactive. Additionally, the Hazards element fails to address the potential dangers associated with improperly abandoned wells. This omission creates a risk of leaks and spills that could harm County residents that may encounter an abandoned oil and gas well unknowingly. CFROG suggests the draft General Plan include a new policy to increase the bonding requirement as a condition of approval to ensure proper plugging, abandonment, and remediation of oil and gas production and exploration sites.

Policy HAZ-xx Increased Bonding Requirement and Remediation Plans. Enforce decommissioning and abandonment standards for oil extraction and exploration projects as a condition of approval. Require applicants to include a cost estimate for decommissioning and site restoration work following the cessation of extraction activities, and to post a bond for the estimated amount. Conduct an inspection after decommissioning and site restoration to ensure that all remediation activities have been satisfactorily completed. Require operators to dismantle all structures that cannot be effectively reused, and to recycle all materials as much as possible. Require that all hazardous waste, including electronics or toxic materials, is disposed of in accordance with applicable health and environmental safety standards.

O20-26
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d. Inspection and Enforcement of Existing CUP Conditions.

With technological advances and changes to state and federal oil and gas exploration and production regulations, the County should prioritize inspection and enforcement of the conditions of approval for existing oil and gas exploration and production sites. This is particularly true with respect to safety and oil spill prevention measures. To this effect, CFROG suggests including a new policy to inspect oil pipelines and enforce existing CUP conditions.

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Policy HAZ-xx Annual Inspection and Enforcement of Existing CUP Conditions. Require annual inspections and enforcement of CUP conditions, including ensuring the most up to date spill prevention and safety technology.

e. Real-Time Detection and Monitoring of Emissions and Plumes.

CFROG suggests the County add a policy to the Draft Plan to require monitoring of oil and gas exploration and production sites, including the pipelines used to convey the oil and gas, through the use of cameras or other technology to detect emissions and plumes in real time:

Policy HAZ-xx Inspection and Monitoring of Oil and Gas Facilities. New discretionary oil and gas development and any proposed expansion of or changes to existing oil and gas operations shall be conditioned to require monitoring through installation of continuous emission monitoring systems (CEMS) for air quality emissions and continuous effluent quality monitoring system (CEQMS) for water pollution, or equivalent monitoring measures (including but not limited to thermal imaging cameras) capable of detecting and recording emissions and plumes in real time.

f. Pipeline Inventory and Maintenance Records.

The Draft Plan indicates that oil and gas transport lines have been mapped on the County's GIS. Draft Plan at 7-21. In addition to mapping these facilities, however, the County should also keep accurate records of maintenance and control technology for these pipelines. It is important to track the age of the pipelines and the technology installed on these pipelines to prevent spills from ruptures. By having this information at hand, the County will have the tools to prioritize specific pipelines for maintenance, and in a seismic event, the ability to identify the pipelines requiring immediate attention. Also, if one pipeline fails, by comparing the age and technology on the pipeline, the County can identify those other pipelines in similar conditions that will need to be replaced prior to another failure. CFROG suggests the addition of a new policy to require oil and gas producers to furnish the County with the relevant records on the maintenance and technology installed on those pipelines.

Policy HAZ-xx (Pipeline Inventory and Maintenance Records). Require all oil and gas producers with active pipelines to furnish the County with accurate and up to date maintenance and safety technology records.

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IV. The DEIR's Proposed Buffer Requirements For Oil and Gas Operations Are Insufficient to Protect Public Health.

The Draft Plan proposes setbacks from oil and gas operations to protect sensitive receptors from toxic pollutants. Draft Plan at 6-12. Proposed General Plan policy COS-7.2: Oil Well Distance Criteria would require new discretionary oil wells to be located 1,500 from residences and 2,500 feet from schools. DEIR Mitigation Measure PR-1 proposes revisions to this policy to limit the buffer to 1,500 feet from all sensitive receptors. DEIR at 2-40 and 4.12-18. The GPU DEIR indicates that there are currently 23 active and idle oil wells within 2,500 feet of schools and 715 active wells within 1,500 feet of homes in the County. DEIR at 4.12-14.

O20-27

A number of recent studies and literature reviews have discussed impacts from oil and gas development, including emissions of criteria and toxic air pollutants, water pollution, noise, light, and biological hazards like Valley Fever.⁵ Many of these studies provide a foundation supporting the establishment of setbacks and for imposing setbacks of at least 2,500 feet from oil and gas operations.

For example, a literature review conducted by Nicole J. Wong, MPH, suggests that far greater setback distances are necessary to protect against adverse health outcomes,

⁵ In addition to the studies discussed in detail below, numerous studies and literature reviews have detailed harm from fracking and other forms of oil and gas development. *See, e.g.,* Concerned Health Professionals of NY and Physicians for Social Responsibility, *Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)* (6th ed. June 2019), attached as Exhibit 16; Kristina Marusic, *After a decade of research, here's what scientists know about the health impacts of fracking*, Environmental Health News (April 15, 2019), available at <https://www.ehn.org/health-impacts-of-fracking-2634432607.html> (visited Feb. 25, 2020). Notably, although these studies focused on the health effects of fracking, a comprehensive review of well stimulation techniques (including fracking) by the California Council on Science and Technology ("CCST") concluded that "[a]ll forms of oil and gas development, not just that enabled by well stimulation, may cause similar public health risks." Seth D. C. Shonkoff, et al., *Chapter Six: Potential Impacts of well Stimulation on Human Health in California*, in Jane C. S. Long, et al., California Council on Science and Technology, *An Independent Scientific Assessment of Well Stimulation in California, Volume II: Potential Environmental Impacts of Hydraulic Fracturing and Acid Stimulation* at 375 (updated July 2016), available at <https://ccst.us/wp-content/uploads/160708-sb4-vol-II-6-1.pdf> (visited Feb. 25, 2020).

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particularly from exposure to air pollutants.⁶ Based on studies showing adverse health effects from air and water pollution at distances well over one-half mile, Ms. Wong concluded that “a 2,500-foot setback recommendation is on the *lower end* of the range of distances where research has determined harmful health and quality of life impacts of toxic emissions and exposures.”⁷

In another example, a study⁸ considered the minimum distance that might be required in case of a blow-out or explosion event by investigating historical evacuation data. This study determined that the average evacuation zone for such incidences is 0.8 miles, or 4,224 feet.⁹ In addition, the Environmental Health Project (EHP), a public health organization consisting of a consortium of experts in environmental studies and public health, agreed that 1.0 to 1.25-mile distance (6,600 feet) from unconventional oil and gas development (i.e., fracking) is an acceptable minimum to protect human health. Additionally, the study recommends greater setback distances for settings where vulnerable subpopulations might gather, such as schools, day care centers, and hospitals.

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In sum, these recent reviews, and the numerous scientific studies considered therein, provide scientific and factual support for development of setbacks in excess of 2,500 feet. An setback of at least 2,500 feet is necessary to protect the health and safety of County residents.

Mitigation Measure PR-1 properly expands the list of “sensitive use structures” to which Policy COS-7.2 would apply. DEIR at 4.12-18. However, the measure would reduce the buffer distance from schools from 2,500 feet to 1,500 feet. As discussed above, ample scientific information indicates that a 1,500-foot buffer is likely insufficient to protect public health and safety.

⁶ Nicole J. Wong, MPH, *Existing Scientific Literature on Setback Distances from Oil and Gas Development Sites* (version 2, Nov. 2017), available at <http://www.stand.ia/research-reports.html>, attached as Exhibit 17.

⁷ *Id.* at 1; see also *id.* at 6 (Table 1) (comparing distances at which several studies documented potential adverse health outcomes with 2,500-foot proposed setback distance) (emphasis added).

⁸ Haley, M., McCawley, M., Epstein, A. C., Arrington, B., & Bjerke, E. F. (2016). *Adequacy of current state setbacks for directional high-volume hydraulic fracturing in the Marcellus, Barnett, and Niobrara Shale Plays*. ENVIRONMENTAL HEALTH PERSPECTIVES, 124(9), 1323, available at <https://ehp.niehs.nih.gov/doi/full/10.1289/ehp.1510547>

⁹ *Id.* at 3.

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In particular, reducing the proposed buffer distance from schools as proposed in Mitigation Measure PR-1 would be both unsupported and unwise. Children are often outdoors at schools, daycare centers, and recreation facilities, where they can be exposed to significant hazards. For example, on March 6, 2006, a small earthquake caused a break in an idle well bore in Upper Ojai, causing oily brine to flow to the surface for months. See DOGGR, 2006 Annual Report of the State Oil & Gas Supervisor at 26 (2007), excerpt attached as Exhibit 18; see also *The Next Big One*, VC Reporter (Aug. 22, 2013), at <https://vcreporter.com/2013/08/the-next-big-one/> (visited Feb. 25, 2020); Jhon Arbelaez, Shaye Wolf, and Andrew Grinberg, *On Shaky Ground: Fracking, Acidizing, and Increased Earthquake Risk in California* at 13 (March 2014), attached as Exhibit 19. Drilling near schools and daycares could expose many more children to similar (or far worse) hazards. Therefore, CFROG respectfully requests that the County revise Policy COS-7.2 to require a minimum setback distance of 2,500 feet from *all* sensitive receptors, including schools, daycares, residences, and medical facilities.

O20-27
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Finally, Policy COS-7.2 would apply only to “new discretionary oil and gas wells.” DEIR at 4.12-18; Draft Plan at 6-12.¹⁰ The proposed policy thus leaves numerous residents with no protection from existing oil and gas wells. See DEIR at 4.12-16 (Figure 4.12-2). Although CFROG recognizes that some of these existing wells may be subject to vested rights, existing operations should nonetheless be amortized and phased out as soon as legally possible.

Accordingly, the County should evaluate an additional mitigation measure consisting of the following policy and implementation program:

Policy COS-xx Phase-Out of Existing Oil and Gas Operations Near Sensitive Uses. Existing oil and gas exploration and production activities located closer than the minimum distance from sensitive use structures established by Policy COS-7.2 shall be terminated within the shortest period of time possible, consistent with protection of any vested rights and applicable constitutional limitations.

O20-28

Implementation Program COS-X: To implement Policy COS-xx [Phase-Out], on or before January 1, 2023, the County shall develop and propose for adoption an ordinance providing for amortization of existing oil and gas exploration and production

¹⁰ As proposed in the Draft Plan, Policy COS-7.2 applies only to “oil wells,” while in the DEIR, the policy would apply to “oil and gas wells.” The policy clearly should apply to both oil and gas wells.

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activities located closer than the minimum distance from sensitive use structures established by Policy COS-7.2, notice and hearing requirements, and any other provisions necessary to phase out such uses as quickly as possible in a manner consistent with state and federal law.

O20-28
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V. The DEIR Improperly Eliminated and Failed to Analyze Alternatives That Would Reduce or Avoid Significant Impacts.

The DEIR does not comply with the requirements of CEQA because it fails to undertake a legally sufficient study of alternatives to the Project. A proper analysis of alternatives is essential to comply with CEQA’s mandate that, where feasible, significant environmental damage be avoided. Pub. Resources Code § 21002 (projects should not be approved if there are feasible alternatives that would substantially lessen environmental impacts); CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(f). The primary purpose of CEQA’s alternatives requirement is to explore options that will reduce or avoid adverse impacts on the environment. *Watsonville Pilots Assn. v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1089. Therefore, the discussion of alternatives must focus on project alternatives that are capable of avoiding or substantially lessening the significant effects of the project, even if such alternatives would impede to some degree the attainment of the project objectives or would be more costly. CEQA Guidelines § 15126.6(b); *see also Watsonville Pilots*, 183 Cal.App.4th at 1089 (“[T]he key to the selection of the range of alternatives is to identify alternatives that meet most of the project’s objectives but have a reduced level of environmental impacts”).

O20-29

As a preliminary matter, the DEIR’s failure to disclose the extent and severity of the Project’s climate impacts necessarily distorts the document’s analysis of Project alternatives. As a result, the alternatives are evaluated against an inaccurate representation of the Project’s impacts. Proper identification and analysis of alternatives is impossible until Project impacts are fully disclosed. Moreover, as discussed above, the document’s analysis is incomplete and/or inaccurate so that it is simply not possible to conduct a comparative evaluation of the Project’s and the alternatives’ impacts.

In any case, the DEIR improperly circumscribes its analysis of potential Project alternatives and makes no serious attempt to describe an alternative that avoids or substantially minimizes the climate impacts of the Project. Comments on the Notice of Preparation for the EIR, including comments from CFROG, urged the County to analyze alternatives that would reduce oil and gas production. CFROG also requested that the County add policies and programs that would achieve similar purposes in its comments on the Preliminary Draft Plan. See June 5, 2019 Comments at 3-5, 25-30.

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The DEIR identifies three alternatives that would address climate impacts related to GHG emissions. These include: the Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative, the Eliminate or Reduce Existing Oil and Gas Wells or Production Alternative, and the Carbon Neutrality Alternative. As discussed in more detail below, the DEIR, however, declined to evaluate any of these proposals as alternatives, and instead rejected them all as infeasible. The DEIR's refusal to evaluate these additional policies, either as alternatives or mitigation measures, was improper.

A. Alternatives That Would Reduce Oil and Gas Production Were Improperly Rejected.

The DEIR rejected alternatives that would limit oil and gas production on two grounds. First, the DEIR found such alternatives "focuse[d] on one specific land use and [did] not comprehensively address most of the basic project objectives." DEIR at 6-9. Yet the DEIR does not identify a single project objective that would not be met by an alternative that provides a comprehensive plan for development in the County while simultaneously reducing reliance on oil and gas exploration and production. Such an alternative would still satisfy most if not all of the objectives listed in the DEIR. It would also avoid or substantially lessen significant impacts of oil and gas development. Nothing in CEQA contemplates or permits elimination of an alternative that meets most project objectives solely on the basis that it would reduce environmental impacts associated with a subset of land uses. And even if CEQA did preclude analysis of alternatives that primarily focus on a subset of land uses, the alternatives' provisions still could serve as mitigation measures for the significant effects of those land uses. Either way, the DEIR fails to justify its elimination of these provisions from detailed consideration.

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Second, the DEIR claims eliminating or reducing existing oil and gas operations would "present legal and economic feasibility issues." DEIR at 6-9. This claim, however, is entirely conclusory and lacks any supporting explanation or analysis. It is also wrong.

Reducing both new and existing oil and gas operations in the County is legally feasible. Nearly a century of case law confirms that local governments may determine where oil and gas operations occur, and may even prohibit such operations altogether. *See, e.g., Higgins v. Santa Monica* (1964) 62 Cal.2d 24; *Beverly Oil*, 40 Cal.2d 552; *Pacific Palisades Assn. v. City of Huntington Beach* (1925) 196 Cal. 211; *Hermosa Beach Stop Oil Coalition*, 86 Cal.App.4th 534; *Friel v. Los Angeles County* (1959) 172 Cal.App.2d 142. A 1976 opinion of the Attorney General (59 Ops. Cal. Atty. Gen. 461) suggested that while some local attempts to regulate the precise manner of oil and gas production might be preempted, local governments generally retain their traditional authority to control land use and protect public health; the Attorney General concluded in

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this context that an ordinance completely prohibiting oil and gas development probably would *not* be preempted. *See id.* at 478, 484.

Moreover, although many existing oil and gas wells in the County may be subject to vested rights, the County may constitutionally require the elimination of vested nonconforming land uses provided owners and operators are given an opportunity to come into compliance during a reasonable amortization period commensurate with the investment involved. *National Advertising Co. v. County of Monterey* (1970) 1 Cal.3d 875, 879. California courts have long recognized amortization periods as valid means to balance the competing interests of a property owner’s property rights and a local agency’s need to implement zoning changes to benefit public health and welfare. *Gage*, 127 Cal.App.2d at 460; *see also United Bus. Com. v. City of San Diego* (1979) 91 Cal.App.3d 156, 180 (reasonable amortization period satisfies due process requirements); *Livingston Rock and Gravel Co. v. Los Angeles* (1954) 43 Cal.2d 121, 126-28. Other jurisdictions follow this exact approach; for example, the Los Angeles Planning and Zoning Code currently provides a 20-year amortization period for termination of nonconforming oil and gas operations. L.A. Municipal Code § 12.23(C)(4). The DEIR has not demonstrated that reduction or elimination of existing operations is legally infeasible, and thus fails to comply with CEQA as a matter of law. *See City of San Diego v. Board of Trustees of California State University* (2015) 61 Cal.4th 945, 956.

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Finally, although the DEIR cites unspecified “economic infeasibility issues,” it fails to provide any evidence or analysis to back up its conclusions. An EIR must contain facts and analysis, not just the “bare conclusions of a public agency.” *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 736 (quoting *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.)

B. The DEIR Improperly Disclaims the County’s Authority to Fight Climate Change.

The DEIR omits detailed consideration of a “carbon neutrality” alternative based primarily on the assumption that the County lacks the authority and the ability to undertake the fundamental changes necessary to avoid the very worst impacts of climate disruption. DEIR at 6-10 to 6-12. Nobody disputes that confronting the climate crisis will require daunting social and economic transformations. Yet this entire section of the DEIR effectively claims that solving the problem is too difficult, too expensive, and ultimately someone else’s responsibility. Simply throwing up our hands and allowing the climate crisis to overtake our communities, however, should never be an option.

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Nobody would argue that the County must create a carbon-free economy all on its own. The point, rather, is that prompt and decisive action at all levels of government will be necessary to achieve this goal. The DEIR recites a litany of necessary actions, but it makes no effort to distinguish which actions lie wholly or partially within the County’s control. The fact that a “coordinated effort of multiple levels of government” may be needed (DEIR at 6-11) does not provide the County with an excuse to claim it has no responsibility to participate. Nor does the DEIR’s weak complaint that taking actions within the County’s control (such as improving public transit) “may have financial constraints” (*id.*) suffice to demonstrate that all such actions are infeasible. The California Supreme Court has twice rejected public agencies’ attempts to disclaim their portion of responsibility for mitigation that required coordination among different agencies and levels of government based on unsupported claims of legal infeasibility. *See City of San Diego*, 61 Cal.4th 945; *City of Marina v. Board of Trustees of California State University* (2006) 39 Cal.4th 341.

O20-31
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A “carbon neutral” alternative would consist of actions the County could take in implementing its General Plan. The DEIR paints a caricature of such an alternative in order to reject it. Whatever the effort required, failure to work toward and achieve a carbon-free economy by mid-century will expose Ventura County to almost incalculable social and economic damage. The County cannot wait until 2040 or beyond for someone else to do the hard work. It has to start now, with a frank and serious look at alternatives that would commit the County to doing its fair share to avoid catastrophe.


VI. Conclusion

We appreciate your consideration of these comments. CFROG looks forward to continuing to work with the Planning Commission, Board of Supervisors, and County staff throughout the General Plan Update process.

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Very truly yours,

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Kevin P. Bundy

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Attachments:

Exhibit 1 Washington Post, "California climate change: Fires, floods and a fight over free parking," December 5, 2019

Exhibit 2 Stats.2019, ch. 23, Item 0555-001-3228 (Budget Act - Assembly Bill No. 74)

Exhibit 3 Carbon Neutrality Studies Scope of Work, Study 1

Exhibit 4 Carbon Neutrality Studies Scope of Work, Study 2

Exhibit 5 DOGGR 2017 (annual report)

Exhibit 6 Ventura County Air Pollution Control District, Part 70 Permit No. 00012, Section No. 2 at 1 (Table No.2) (May 14, 2019)

Exhibit 7 Bloomberg News, "NASA Flew Gas Detectors Above California, Found 'Super Emitters'," November 7, 2019

Exhibit 8 "A Third of California Methane Traced to a Few Super-Emitters,"
<https://climate.nasa.gov/news...>

Exhibit 9 Myhre, G., et al., 2013: Anthropogenic and Natural Radiative Forcing. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press

Exhibit 10 Ventura County Methane Plum Data

Exhibit 11 Carbon Energy Corporation Corporate Overview 2019

Exhibit 12 Ventura County Air Pollution Control District, Order Granting Interim Variance, Hearing Board Case No. 878

Exhibit 13 Letter Report from County Counsel, Leroy Smith, to the County Board of Supervisors

Exhibit 14 "The 2013–2016 induced earthquakes in Harper and Sumner Counties, southern Kansas" Bulletin of the Seismological Society of America. Justin L. Rubinstein, William L. Ellsworth, and Sara L. Dougherty [abstract]

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Exhibit 15 “Studies Link earthquakes to fracking in the Central and Eastern US,”
Seismological Society of America. Science Daily April 26, 2019

Exhibit 16 Concerned Health Professionals of NY and Physicians for Social
Responsibility, *Compendium of Scientific, Medical, and Media Findings Demonstrating
Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)* (6th ed. June
2019)

Exhibit 17 Nicole J. Wong, MPH, *Existing Scientific Literature on Setback Distances
from Oil and Gas Development Sites* (version 2, Nov. 2017)

Exhibit 18 DOGGR 2006 Annual Report of the State Oil & Gas Supervisor at 26 (2007)
[excerpt]

Exhibit 19 Jhon Arbelaez, Shaye Wolf, and Andrew Grimberg, *On Shaky Ground:
Fracking, Acidizing, and Increased Earthquake Risk in California* (March 2014)

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cont.

cc: Climate First: Replacing Oil & Gas

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| Letter O20 | Climate First: Replacing Oil & Gas Kevin P. Bundy, Shute, Mihaly & Weinberger LLP February 27, 2020 |
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O20-1 The comment summarizes more detailed comments provided elsewhere in the comment letter. Refer to responses to comments O20-2 through O20-33 regarding the draft EIR’s analysis of greenhouse gas (GHG) emissions, use of air quality thresholds, compliance with California Environmental Quality Act (CEQA), proposed 2040 General Plan policies, oil and gas operations, and project alternatives, as well as other issues.

The County acknowledges Climate First: Replacing Oil & Gas’s June 5, 2019, letter on the 2040 General Plan, which was reviewed and considered in preparation of the draft EIR. Where concerns raised in the June 5, 2019 letter are reiterated in this letter, they are responded to below. With respect to the 2040 General Plan’s approach to oil and gas policies and the suggestion that a “shift in direction” relative to petroleum extraction should be considered as an alternative or series of mitigation measures to reduce impacts identified in the EIR, refer to the discussion of project alternatives that would limit active and idle wells to reduce emissions (Section 4.4.4) and eliminate or reduce existing oil and gas wells (Section 6.4.5).

O20-2 The comment asserts that the draft EIR fails to meet CEQA requirements and summarizes more detailed comments regarding mitigation measures and alternatives provided elsewhere in the comment letter. Refer to responses to comments O20-3 through O20-33, below, regarding feasible mitigation measures and alternatives to reduce the project’s significant impacts.

O20-3 The comment asserts that the 2040 General Plan largely fails to reduce GHG emissions, presents incomplete and inaccurate GHG data, and lacks specific, enforceable measures to achieve GHG emission reductions. Refer to Master Response MR-1.A for discussion of the accounting of baseline and forecast GHG emissions from oil and gas development in the 2040 General Plan and draft EIR, and policies and programs of the 2040 General Plan related to GHG emissions reduction. Refer also to the response to comment O20-8 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions.

O20-4 This comment expresses concern with the completeness and accuracy of the baseline GHG inventory, particularly regarding emissions associated with oil and gas production. The comment identifies numerical inconsistencies between the 2015 stationary source emissions estimates within pages 43 to 45 in Appendix D of the draft EIR. The 2015 emissions estimates on page 43 in Appendix D incorrectly used global warming potential factors from IPCC’s Fourth Assessment Report. However, these values were not linked to the final results. All other

emissions estimates use global warming potentials from IPCC's Fifth Assessment Report. Per this and other similar comments, the stationary source emissions estimates have been revised. These revisions are discussed in Master Response MR-1 and revisions to draft EIR Appendix D in Attachment 2 to the final EIR.

The comment also expresses concern that natural gas combustion emissions from the oil and gas sector are not being properly accounted for because natural gas combustion is a major source of CO₂ emissions from the oil and gas sector in the state. According to the State's annual oil and gas reports, no natural gas was produced from Ventura County in 2015 (California Department of Conservation 2015). However, associated gas is produced in the county as part of crude oil production. Emissions from associated gas combustion are included in the county's inventory. Associated gas is natural gas that is produced as a by-product of crude oil production, rather than directly mined. Thus, the scope of emissions analyzed in the EIR properly accounts for all relevant emissions from oil and gas production in the county.

The comment also expresses concern that the county's oil and gas emissions are too low when compared to the county's percentage of oil and gas production in the State; and that the inventory does not include emissions related to the transport of oil and gas production. Per this and other similar comments, the quantification of emissions from oil and gas production have been revised to use county-specific emissions data from a 2007 CARB oil and gas survey, which was then scaled to 2015 and future years based on the county's oil production in 2015 and anticipated production in future years. Forecasted oil production was revised, based on responses to other comments, to reflect production trends beginning from 1980. Refer to Master Response MR-1.A and revisions made to Appendix D of the draft EIR as shown in Attachment 2 of the final EIR. Attachment 2 includes a more detailed discussion of the methodology used to quantify the oil and gas emissions inventory and forecast, including a discussion of the scope of oil and gas emissions included in the inventory.

The comment also expresses concern that aviation emissions are excluded from the inventory. The communitywide GHG inventory does not include emissions associated with aviation, as emissions associated with interstate commercial transport are addressed through federal agency planning. The U.S. Federal Aviation Administration's (FAA's) Office of Energy and Environment works collaboratively with the International Civil Aviation Organization, as well as its Committee on Aviation Environmental Protection, to address aviation's impact on the environment. The FAA supports the policy work of the International Civil Aviation Organization and the technical work conducted by the Committee on Aviation Environmental Protection in partnership with the Department of State, Environmental Protection Agency, and other federal agencies. For more information, refer to the U.S. Aviation GHG Reduction Plan (FAA 2015).

The comment also expresses concern that it is unclear whether emissions from operations at the Port of Hueneme are included in the inventory. The Port is located within the City of Port Hueneme's incorporated boundary, part of a

special district (Oxnard Harbor District), and the inventory does not include emissions related to operations at the Port of Hueneme.

O20-5 This comment addresses the accounting of emissions from aviation industry and operations at the Port of Hueneme in the baseline GHG inventory.

The communitywide GHG inventory does not include emissions associated with aviation, as emissions associated with interstate commercial transport are addressed through federal agency planning. The UFAA's Office of Energy and Environment works collaboratively with the International Civil Aviation Organization (ICAO), as well as its Committee on Aviation Environmental Protection, to address aviation's impact on the environment. The FAA supports the policy work of the International Civil Aviation Organization and the technical work conducted by the Committee on Aviation Environmental Protection in partnership with the Department of State, Environmental Protection Agency, and other federal agencies. For more information, refer to the U.S. Aviation GHG Reduction Plan (FAA 2015).

The Port is located within the City of Port Hueneme's incorporated boundary, part of a special district (Oxnard Harbor District), and the inventory does not include emissions related to operations at the Port of Hueneme.

A revised version of draft EIR Appendix D is provided in Attachment 2 to this final EIR, which clarifies that the following activities were not included in the GHG inventory: airport ground support equipment, commercial harbor craft, cargo handling equipment, military, and ocean-going vessels.

O20-6 The comment asserts that "super emitters" contribute to GHG emissions in Ventura County and that the draft EIR and 2040 General Plan fail to disclose these emissions, analyze their impacts, or identify emission reduction measures for them. Refer to Master Response MR-1.A for a discussion about the consideration of "super emitters" in the draft EIR analysis. As explained in the master response, the GHG emissions inventory was produced using the 2013 ICLEI U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions, the latest version available at the time of publication. This is an industry standard protocol used by local governments throughout the United States for quantification of communitywide GHG emission. "Super emitters" were not included in the inventory because they are not a component of this protocol and there is lack of scientific consensus on a technical definition of these sources. Refer to response to comment O6-30 for a discussion of the basis for projections specific to the oil and gas sector. The 2040 General Plan does not provide flawed baseline data that has undermined the planning process. Master Response MR-1.B provides further discussion of the emissions targets established by the County and the relationship to State goals. No revisions to the 2040 General Plan or draft EIR have been made in response to this comment.

O20-7 The comment states that projections of "business as usual" emissions from the oil and gas sector in the 2040 General Plan and draft EIR lack adequate justification, and speculates that projections for this activity were based upon population, employment and housing as they were for other sectors. This is not

accurate. As shown in the “Assumptions” section of Appendix D to the draft EIR (page 52) and in the revised version of draft EIR Appendix D in Attachment 2 to the final EIR, forecasted emissions from oil and gas production were scaled from the projected increase of oil production in the county through 2050.

The comment suggests that the increase in local oil and gas production runs counter to California’s trends of grid decarbonization, electrified transportation and increased building energy efficiency in California. While some oil and gas generated is used within California, it is also sold into national and international markets for refinement and consumption that are not influenced by California’s policy preferences for grid decarbonization, electric vehicles, and building energy efficiency. Additionally, natural gas is the main fossil fuel used within buildings and for statewide electricity generation. According to the California Energy Commission, oil and petroleum-based fuels accounted for just 0.16 percent of the state’s total electric system generation in 2018 (CEC 2019). State policies concerning these activities would have a negligible effect on local oil production.

As explained in response to comment O6-30, there was a calculation error in the scaling factor used to forecast emissions through 2050 in Appendix D to the draft EIR. In response to this and other similar comments, the calculations for stationary source inventory emissions and forecasts have been completely revised in the final EIR and are included in the revised version of draft EIR Appendix D in Attachment 2 to this final EIR. The updates to the GHG calculations more accurately reflect the anticipated trends in emissions from the oil and gas industry. Refer to Master Response MR-1.A and the Revised Appendix D for additional discussion of the revisions made to the stationary source emissions inventory and forecast.

These revised emissions estimates would not change the impact conclusions of the draft EIR. As described in Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR, future GHG emissions in the county would be on a downward trajectory compatible with State plans, policies, and regulations that would also result in GHG reductions in the county; however, due to uncertainty regarding regulatory reductions in the transportation sector and the County’s minimal growth, Impact 4.8-1 (Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment) and Impact 4.8-2 (Conflict with an Applicable Plan, Policy, or Regulation for the Purpose of Reducing the Emissions of GHGs) would remain significant and unavoidable.

The comment also points to two draft scopes of work between the University of California and the Governor as evidence that the State is actively transitioning away from fossil fuels. These scopes describe a feasibility study to be conducted in the future by researchers, not an officially adopted State plan. The comment gives two examples of statewide legislation and policies said to be missing from the GHG forecast, Zero Net Energy (ZNE) improvements to the building code, and the state’s Short-Lived Climate Pollution Strategy. It is correct that ZNE was not considered as one of the legislative reductions in the GHG forecasting. The commenter’s description of ZNE as “improvements to the building code” is not an accurate characterization, and conflates the State’s aspirational goals for ZNE buildings established 12 years ago under an Energy Efficiency Strategic Plan

(Engage 360 2011) with the actual building code requirements that have been more recently adopted in California Energy Code Title 24 Part 6. In 2008, the California Energy Commission and California Public Utilities Commission established ZNE as a “goal” for all new residential buildings by 2020 and new commercial buildings by 2030 and later developed a series of Action Plans identifying actions needed to achieve this goal. However, incorporation of residential ZNE requirements into the 2019 California Energy Code, effective January 1, 2020 did not occur and was substituted with a rooftop solar ordinance offsetting the electric load of homes, falling short of the original ZNE goal (NRDC 2018). While ZNE may become a code requirement in the future, the timing and shape that these code requirements will take remains uncertain and were thus incorporated into the 2040 General Plan as a policy under COS-8.6, Zero Net Energy and Zero Net Carbon Buildings, rather than assumed as a statewide mandate for purposes of calculating GHG emission forecasts for the draft EIR.

The comment states that Appendix D of the draft EIR does not mention the State’s Short-Lived Climate Pollution Strategy. Senate Bill 1383, which is a component of the State’s the Short-Lived Climate Pollution Strategy is listed on the fourth row down on page 29 of the Appendix D to the draft EIR. Senate Bill 1383 addresses organic waste diversion to reduce methane emissions from waste decomposition. Organic waste reduction regulations pursuant to the Short-Lived Climate Pollution Strategy were also among the State laws analyzed as part of the relevant State policies for the 2040 General Plan. Table B-5 of the 2040 General Plan identifies which plans were considered.

For a discussion of the 2040 General Plan’s consistency with of the State’s 2017 Climate Change Scoping Plan, see Master Response MR-1.B.

O20-8

The comment asserts that the measures included in the 2040 General Plan do not meet the County’s GHG reduction targets and goals. The comment is correct and the draft EIR acknowledges on page 4.8-49 that, “(w)ith the modest amount of forecast future growth in the county, substantial GHG reductions would need to be derived from measures targeting existing development, infrastructure, and associated activity levels... While the County encourages and promotes the reduction of or changes to these activities contributing to GHG emissions, it does not have the authority to enforce measures that may potentially infringe upon private property rights, reduce the economic competitiveness of local businesses, or inhibit the ability for residents to travel between residences, jobs, and amenities.”

The comment also states that the 2040 General Plan and draft EIR do not include enforceable, concrete commitments to mitigation as required under CEQA. The comment asserts further that “enforceable measures and quantification” are “required to demonstrate consistency with” targets and goals. This is not accurate.

The 2040 General Plan does include measurable targets for GHG reductions for 2030, 2040, and 2050 that are aligned with the State’s legislative GHG reduction targets and other reduction goals (page 4.8-6). Where feasible, the draft EIR estimates the anticipated emissions reductions from certain measures (displayed

in Table 4.8-1) using Intergovernmental Panel on Climate Change's Global Warming Potential values from the most recent Fifth Assessment Report. In preparing the GHG analysis provided in the draft EIR, the County considered, and included references to, the proposed 2040 General Plan policies and implementation programs most applicable to the analysis. As explained in the methodology subsection in Section 4.8, "Greenhouse Gas Emissions," (page 4.8-7), the analyses evaluate whether the GHG reduction benefits of these policies and programs are supported by substantial evidence. Substantial evidence leading to estimates of GHG emissions resulting from implementation of the 2040 General Plan include both qualitative and quantitative assessments, consistent with Section 15064.4(a) of the State CEQA Guidelines. The draft EIR includes a detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county (pages 4.8-37 to 4.8-45).

Table 4.8-5 summarizes the policies and programs that would have quantifiable GHG reductions by 2030 (page 4.8-39). Implementation of the quantified policies and programs in Table 4.8-5 would collectively provide reductions of 151,903 MTCO_{2e} by 2030, an approximate 9 percent reduction from forecast 2030 levels and 30 percent of the reductions needed to meet a target of 1,113,972 MT CO_{2e} for consistency with emissions targets identified in Policy COS-10.2 (41 percent below 2015 levels by 2030). An additional 361,250 MTCO_{2e} of reductions would be needed to close the gap with the 2030 target (page 4.8-40).

Note that revisions made to draft EIR Appendix D shown in Attachment 2 to this final EIR have resulted in slight modification of these numbers, refer to Chapter 3, "Revisions to the Draft EIR." It is now estimated that 242,748 MTCO_{2e} of reductions would be needed to close the gap with the 2030 target.

Other policies and programs of the 2040 General Plan would also result in GHG reductions, but specific amounts cannot be determined at this time as described on page 4.8-39. Qualitative analysis of the GHG reduction benefits of 43 programs included in the 2040 General Plan to reduce GHG emissions is provided in Table 4.8-6 (pages 4.8-40 to 4.8-43). The draft EIR also includes seven feasible mitigation measures that address the potentially significant GHG emissions impacts of the 2040 General Plan (draft EIR pages 4.8-45 to 4.8-47). Thus, the draft EIR correctly identifies and considers 2040 General Plan policies and programs in the GHG emissions analysis conducted in the draft EIR and correctly includes feasible and enforceable mitigation measures in the draft EIR analysis of GHG emissions. Mitigation Measures GHG-1, GHG-2, GHG-4, CTM-1, CTM-2, and CTM-3 would reduce GHG emissions. However, as noted on page 4.8-49 of the draft EIR, "Most of the GHG reduction policies and implementation programs included in the 2040 General Plan, and the mitigation measures identified above, are targeted to future development (as opposed to existing development), because these are the activities where the County has the greatest ability to enforce regulations, ordinances, and design standards." The 2040 General Plan policies and recommended mitigation measures would not be sufficient to reduce GHG emissions to the established 2030 and 2040 reduction target because the policies, while supportive of future GHG reductions, do not

contain enough specificity for their numeric contribution to the established 2030 and 2040 targets to be quantified. The draft EIR (page 4.8-52) explains that:

“No additional feasible mitigation has been identified at this time beyond the mitigation measures identified above and the policies and implementation programs of the 2040 General Plan. Under the 2040 General Plan future GHG emissions in the county would be on a downward trajectory compatible with State plans, policies, and regulations that would also result in GHG reductions in the county.”

In Impact GHG-2 (page 4.8-50), the draft EIR explains that the 2040 General Plan includes several implementation programs with a quantifiable effect on future GHG emissions, and a substantial number of additional programs and policies in every GHG emission sector that would result in further GHG emissions, although their effect on GHG emissions cannot be quantified at this program level of analysis. The 2040 General Plan policies and programs complement the main area of local government influence over GHG emissions, including renewable energy and energy efficiency, land use decisions, and local transportation infrastructure and policy. The available information that can be quantified demonstrates that future emissions in the county would be on a downward trajectory through 2050. Qualitative evidence shows that the many policies and programs that cannot be quantified at this time would lead to further GHG reductions and additional progress toward State GHG reduction targets. However, for these reasons and those described in Impact 4.8-1, the County cannot meaningfully quantify the effect of all its 2040 General Plan policies and programs on future GHG emissions, and therefore, it cannot conclude, at this program level of analysis, that future GHG emissions in the county under the 2040 General Plan would be sufficiently reduced to meet the State’s 2030 or post-2030 targets. No revision to the draft EIR is required in response to this comment.

O20-9 The comment asserts that the draft EIR did not identify feasible mitigation measures for significant GHG emissions impacts. Refer to Master Response MR-1.C for discussion of the feasible mitigation measures included in the draft EIR to reduce the 2040 General Plan’s significant GHG emissions impacts.

O20-10 The comment states that the 2040 General Plan and draft EIR do not adequately address methane emissions from the oil and gas sector by omitting policies, programs, or mitigation measures to reduce methane emissions from oil and gas operations. A series of recommendations are made by the commenter in comments and addressed in response to comments O20-18, O20-19, O20-20, O20-21, O20-22, O20-23, O20-24, O20-25, and O20-26.

As stated in the “Regulatory Setting” subsection of Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR, methane emissions are regulated through CARB’s GHG Regulations for Crude Oil and Natural Gas with local assistance from the Ventura County Air Pollution Control District (VCAPCD). These regulations, adopted in 2018, require reporting and retrofitting of existing wells to reduce methane emissions in existing operations. The regulations also apply to new oil and gas wells requiring permits from VCAPCD. Thus, the 2040 General

Plan and draft EIR do not include policies, programs, or mitigation measures for methane emissions.

O20-11

The comment asserts that the draft EIR attempts to avoid responsibility for proposing mitigation. As described in response to comment O20-8, the draft EIR proposes seven mitigation measures to reduce the significant GHG emissions impacts of the 2040 General Plan. The conclusion that impacts would be significant and unavoidable was reached primarily because (1) the 2040 General Plan is intended to guide future development, which comprises a limited share of the projected GHG emissions and (2) effectiveness of many proposed implementation programs cannot be reliably quantified at this program level of analysis, although the draft EIR provides qualitative evidence to demonstrate that these types of programs achieve GHG reductions.

The sentence from the draft EIR that is quoted in this comment was not intended to express that the County has a general lack of legal authority to implement any specific mitigation measure addressing GHG emissions or climate change. Rather, the sentence was intended to list factors that the County may consider in determining whether any such mitigation measure is “feasible” pursuant to the California Environmental Quality Act in accordance with the balancing process that is referenced in the draft EIR’s following sentence.

The second paragraph on page 4.8-49 of the draft EIR is revised as follows:

With the modest amount of forecast future growth in the county, substantial GHG reductions would need to be derived from measures targeting existing development, infrastructure, and associated activity levels. Most emissions that are forecast to occur in the county are from energy use in existing buildings, vehicle use and travel behavior influenced by the existing land use pattern and transportation systems, landfilled waste, and established agricultural operations. While the County encourages and promotes the reduction of or changes to these activities contributing to GHG emissions, it may decide that certain mitigation measures are infeasible based, for example, on their ~~does not have the authority to enforce measures that may potentially~~ infringement upon private property rights, reduction in the economic competitiveness of local businesses, or inhibition on the ability for residents to travel between residences, jobs, and amenities. Pursuant to Section 15093 of the State CEQA Guidelines, CEQA requires the lead agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable. These factors are considered by the decision-making body of the lead agency following certification of the EIR and prior to making a decision about whether to approve the project ~~constrain the ability for the County to reduce GHG emissions from existing activities through additional mitigation measures.~~

O20-12 This comment asserts that the draft EIR appears to conclude that the County may weigh the benefits of the 2040 General Plan against its environmental consequences without first proposing and adopting all feasible measures to mitigate or avoid significant impacts.

There are two impacts (Impact 4.8-1 and Impact 4.8-2) evaluated in draft EIR Section 4.8, “Greenhouse Gas Emissions.” The draft EIR finds that the 2040 General Plan could result in significant and unavoidable effects in both impact discussions, despite application of seven mitigation measures.

As part of a detailed discussion of impact significance after mitigation, the County references the role of decision-makers in balancing effects on the environment against economic and other factors is in discussion in the subsection “Significance after Mitigation” on pages 4.8-49 and 4.8-52. Here, the County explains that most of the forecast GHG emissions in 2030 and beyond are caused or influenced by energy use in existing buildings, vehicle use and travel behavior on existing transportation systems, landfilled waste, and agricultural uses. It is the obligation of the decision-making body of the lead agency that chooses to approve a project for which an EIR has been certified to determine if there are considerations that make additional mitigation infeasible. Because most emissions are expected to be generated from existing uses, effective mitigation would mandate changes that “may reduce the economic productivity of established businesses, and/or impose limitations on technologies available for agricultural production, transportation, and construction.” Further, “the County has limited authority to enforce stringent actions resulting in GHG reductions beyond what have been already been included in the 2040 General Plan” and proposed as mitigation measures in the draft EIR. This is a description of CEQA procedure and is provided after the draft EIR environmental analysis and consideration of feasible mitigation measures. The draft EIR does not include a premature proclamation that the project’s benefits outweigh its environmental impacts or otherwise “disclaim its responsibility to develop feasible mitigation by prematurely claiming that the project’s benefits outweigh its environmental drawbacks.” Refer also to response to comment O20-11, which clarifies the statement of factors that may be considered by the County after certification of the final EIR and when considering project approval on page 4.8-49.

O20-13 The comment states that the 2040 General Plan fails to provide any basis for streamlining analyses of cumulative GHG impacts in CEQA associated with subsequent projects. It states that neither the 2040 General Plan nor the CAP contains sufficient specific, enforceable GHG reduction measures to support streamlined CEQA review of future projects CEQA Guidelines section 15183.5 and that this should be made more explicit in the 2040 General Plan.

The draft EIR includes Mitigation Measure GHG-3, which would eliminate Implementation Program COS-EE. As explained on page 4.8-48 of the draft EIR, this could reduce potential GHG emissions reductions because design features or alternatives for individual projects cannot all be evaluated in a programmatic EIR at a county-wide scale, and because the types of emerging technologies that could be available when projects are proposed over the next two decades cannot be determined at this time. Mitigation Measure GHG-3 specifies that the CEQA

streamlining provision proposed as COS-EE in the 2040 General Plan be removed, and that the potential GHG emissions impacts of future, discretionary projects be reviewed in accordance with the most recent adopted version of the Initial Study Assessment Guidelines (ISAG) at the time of project-level environmental review.

The comment suggests adding a statement to the 2040 General Plan clarifying this approach and removing references to the streamlining provisions of Section 15183.5. The County agrees and has removed references to tiering and streamlining the GHG analysis for projects subject to environmental review pursuant to Section 15183.5 of the State CEQA Guidelines in the 2040 General Plan on pages 12-4, B-3, B-5, B-24 to B-25 and B-57. Specifically, in Chapter 12, "Glossary and Acronyms," the definition of streamlining under the California Environmental Quality Act (CEQA) on page 12-4 will be revised to remove, "or tiering and streamlining GHG emissions analysis for projects consistent with a climate action plan or GHG reduction plan, per CEQA Guidelines Section 15183.5" from the parenthetical example. The introduction to, and text of, Table B-1 beginning on page B-3 has been modified. Implementation Program COS-EE has been removed from Table B-9 and the corresponding explanation of COS-EE implementation from pages B-24 through B-25 has been deleted. Finally, Implementation Program COS-EE has been removed from Table B-9 on page B-57. These changes are provided in the Ventura County Planning Commission hearing materials for July 16, 2020 (see exhibit for "Planning Division Recommended Revisions to the 2040 General Plan").

These changes do not affect the analysis or conclusions of the EIR. No revisions to the draft EIR have been made in response to this comment.

O20-14

The comment recommends that a new mitigation measure be considered that would require all discretionary projects in the county to use the Ojai Valley thresholds pursuant to the Ventura County Air Pollution Control District (VCAPCD) Air Quality Assessment Guidelines (AQAG) when undergoing CEQA review. The threshold of significance for daily ROG and NO_x emissions in the Ojai Valley which is referenced in the Ojai Valley Area Plan, applies to sources that are not permitted by VCAPCD, and were added to the VCAPCD's Air Quality Assessment Guidelines in 1989. The reference to this threshold was thereafter added to the Ojai Valley Area Plan in 1995. Currently the VCAPCD recommends two different thresholds for ROG and NO_x emissions for individual discretionary projects: 5 pound per day for Ojai Valley and 25 pound per day for the remainder of the county for both ROG and NO_x, for emissions from sources that are not permitted by VCAPCD. As discussed on page 4.3-6 of the draft EIR, "In consideration of new and more stringent NAAQS and CAAQS adopted since 2000, VCAPCD identified numerical thresholds for project-generated emissions of ozone precursors that would determine whether a project's non-VCAPCD permitted emissions would result in a cumulative, regional contribution (i.e., significant) to the baseline nonattainment status of Ventura County." Also discussed on page 4.3-6 of the draft EIR, "CEQA-related air quality thresholds of significance are tied to achieving or maintaining attainment designations with the NAAQS and CAAQS, which are scientifically substantiated, numerical

concentrations of criteria air pollutants considered to be protective of human health.”

The comment does not provide reasoning for why reducing the countywide threshold would improve air quality or reduce public health risk. The adoption of the Ojai Valley thresholds for the rest of the county would not in and of itself result in reduced air quality emissions as a threshold is not inherently a mitigation measure. As discussed on page 4.3-18, “Policies HAZ-10.05 and HAZ-10.12 would require that discretionary development with significant adverse air quality impacts only be approved if it is conditioned with all reasonable mitigation measures to avoid, minimize or compensate for the impact.” A reduction in the air quality thresholds would not reduce air quality emissions or reduce air quality impacts. As such, this suggested mitigation measure is not included in the EIR and no revisions to the EIR are needed.

O20-15

This comment asserts that the VCAPCD’s AQAG violate CEQA and that both the AQAG and the County’s ISAG must be revised in a manner that reflects CEQA’s requirements. Refer to response to comment O5-27 regarding thresholds of significance. As referenced in the comment, a June 5, 2019 letter submitted by the commenter claimed that the AQAG guidelines were unlawful because a discretionary project’s total emissions should exclude permitted stationary sources when comparing the project to the recommended thresholds for significance determination. The letter claims that only non-permitted sources are counted toward the threshold while permitted sources from the same project are ignored. This is an incorrect interpretation of the VCAPCD guidance. As stated on page 5-9 of the AQAG, “Air emissions from any project-related stationary air emissions sources that do not require permits from the District should be estimated and included in total project emissions... Air emissions from a wide range of stationary sources are controlled through the District’s air pollution permit program. The District permit program mitigates emission increases from stationary sources by requiring emission control devices, emission process limits, and emission offsets.” All discretionary projects’ emissions are evaluated pursuant to the VCAPCD guidance, whether through the numeric thresholds or the permitting process. This guidance is consistent with other air districts throughout the state, including the Bay Area Air Quality Management District and the Sacramento Metropolitan Air Quality Management District.

The comment also asserts that the air quality thresholds used in the draft EIR must be consistent with CEQA requirements. As explained on page 4.3-5 of the draft EIR, “To develop thresholds of significance for this section of the draft EIR, the County has deviated from the ISAG threshold criteria, where appropriate, to appropriately consider the programmatic nature of a general plan for the entire unincorporated area and to incorporate the 2019 revisions to the Appendix G checklist.” Page 4.3-6 provides a bulleted list of the thresholds used in the air quality analysis, which are consistent with CEQA requirements. No revisions to the draft EIR are needed.

O20-16

Refer to Master Response MR-4 regarding the draft EIR analysis and conclusions related to setbacks, pipelines, flaring, and the adequacy of the reports cited in the draft EIR analysis of impacts to petroleum resources. With

respect to the earthquake risk, the cited Report of the Oil and Gas Supervisor indicates that the process of well repair began soon after the event.

The commenter also identifies a typographical error in Policy COS-7.2, as provided in Mitigation Measure PR-1 on page 4.12-18 of the draft EIR, which incorrectly indicates that this policy applies to gas wells. The 2040 General Plan, Conservation and Open Space Element includes Policy COS-7.2: Oil Well Distance Criteria which states, “The County shall require new discretionary oil wells to be located a minimum of 1,500 feet from residential dwellings and 2,500 from any school,” (page 6-12). Further, the draft EIR accurately identifies Policy COS-7.2 on page 4.12-8. Oil wells are commonly referred to as oil and gas wells based on that fact that they frequently produce both oil and gas. The draft EIR Policy COS 7.2 in Mitigation Measure PR-1 included reference to gas wells, which is not consistent with Policy COS-7.2 in the 2040 General Plan. The inclusion of gas wells in Mitigation Measure PR-1 was completed in error. Therefore, in response to this comment, Policy COS 7.2 in Mitigation Measure PR-1 has been revised on page 4.12-18 to delete the reference to gas wells as follows:

Mitigation Measure PR-1: Revised Policy COS-7.2: Oil Well Distance Criteria.

The County shall include the following revised policy in the 2040 General Plan.

COS-7.2: Oil Well Distance Criteria

The County shall require that new discretionary oil ~~and gas wells to be located~~ be sited a minimum of 1,500 feet from the well head to residential dwellings dwelling units and 2,500 from any school sensitive use structures which include dwellings, childcare facilities, hospitals, health clinics, and school property lines.

O20-17

The comment provides an argument to support the assertion that draft EIR Mitigation Measure PR-2 and Mitigation Measure PR-3, which would modify Policy COS-7.7 and Policy COS-7.8 proposed in the 2040 General Plan to reduce the effects on availability of petroleum resources identified in the EIR analysis, are inadequate mitigation measures under CEQA. Specifically, the comment asserts that these mitigation measures are improperly deferred, do not provide guidance or concrete performance standards on how feasibility determinations must be made, and would take place out of public view and without a hearing.

In this case, the environmental impact under evaluation in the draft EIR is whether implementation of the 2040 General Plan would result in the loss of availability of a known petroleum resource that would be of value to the region and the residents of the State (Impact 4.12-4). The analysis finds that the County’s proposed policies (COS-7.7 and COS-7.8), while potentially beneficial in other ways, would result in the loss of availability of known petroleum resources in some cases, which the draft EIR concludes is a potentially significant impact. As mitigation, the draft EIR modifies these policies in Mitigation Measures PR-2 and PR-3 to establish a standard by which the

requirements set forth in these policies would be adhered unless they result in the loss of availability of known petroleum resource.

Specifically, the proposed revision to COS-7.7 in Mitigation Measure PR-2 would replace the condition that “oil and produced water shall not be trucked” with language acknowledging that requiring exclusive use of pipelines for conveying oil and produced water would be technologically or economically infeasible in certain cases and therefore, result in the loss of availability of known petroleum resource. With Mitigation Measure PR-2, the County could allow trucking of crude oil and produced water, and therefore, avoid loss of availability of a known petroleum resource “if the proponent demonstrates that conveying the oil and produced water via pipeline is infeasible.” Similarly, in Policy COS-7.8, the condition that “flaring and venting shall not be allowed” is revised in Mitigation Measure PR-3 to state that flaring and venting may be allowed, and therefore avoid the loss of availability of a known petroleum resource “if the proponent demonstrates that conducting operations without flaring or venting is infeasible.”

Therefore, Mitigation Measures PR-2 and PR-3 would clearly commit the County to mitigation that would avoid or substantially lessen the loss of availability of petroleum resources: the measures set forth standards by which the County would be able to approve new discretionary oil wells (Mitigation Measure PR-2) and oil and gas wells (Mitigation Measure PR-3) where the County has determined that requirements to convey crude oil or processed water (Mitigation Measure PR-2) and/or restrict flaring or venting (Mitigation Measure PR-3) would be infeasible and therefore, result in the loss of availability of known petroleum resources if still required.

In the cases cited by the commenter, mitigation was found to be ineffective because it included an “if feasible” clause such that implementation was not guaranteed and the decision about mitigation was deferred. In Mitigation Measures PR-2 and PR-3, “if feasible” is the mitigation because it allows the County to consider all proposals and does not limit the potential for extraction at the program level. Whether the County’s future project-level analysis determines that the requirements of COS-7.7 and COS-7.8 are or are not feasible is immaterial to the adequacy of Mitigation Measures PR-2 and PR-3 presented in the draft EIR. Allowing project proponents to demonstrate infeasibility of these policies, subject to approval by the County, means that new discretionary wells for which the requirements are infeasible could still operate and access available petroleum resources. There is no deferral of mitigation for impacts of the 2040 General Plan. Further, it is precisely the authority and function of the County’s Planning Division to review and consider future discretionary development proposals. This includes conducting appropriate project-level CEQA analysis with the requisite public participation.

The commenter is incorrect in asserting that the application of these policies would occur administratively without a public hearing. Under the County’s zoning ordinances, a public hearing is required for all discretionary permit requests that would be subject to the policies. Consequently, every County decision applying the policies would occur at a public hearing.

These measures have been revised as shown below to clarify the definition of feasible and that the County is responsible for approving feasibility determinations prepared by project proponents.

Mitigation Measure PR-2: Revised Policy COS-7.7: Limited Conveyance for Oil and Produced Water.

The County shall include the following revised policy in the 2040 General Plan.

Policy COS-7.7: Limited Conveyance for Oil and Produced Water. The County shall require new discretionary oil wells to use pipelines to convey crude oil and produced water, if feasible.¹ ~~oil and produced water shall not be trucked.~~ Trucking of crude oil and produced water may only be allowed if the proponent demonstrates, subject to approval by the County, that conveying the oil and produced water via pipeline is infeasible. In addition, trucking of crude oil and produced water is allowed in cases of emergency and for testing purposes consistent with federal, state and local regulations.

1. “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

Mitigation Measure PR-3: Revised Policy COS-7.8: Limited Gas Collection, Use, and Disposal. The County shall include the following revised policy in the 2040 General Plan.

Revised Policy COS-7.8: Limited Gas Collection, Use, and Disposal. The County shall require that gases emitted from all new discretionary oil and gas wells be collected and used or removed for sale or proper disposal, if feasible.¹ ~~Flaring or venting shall may~~ only be allowed if the proponent demonstrates, subject to approval by the County, that conducting operations without flaring or venting is infeasible. In addition, flaring or venting is allowed in cases of emergency ~~or~~ and for testing purposes consistent with federal, State, and local regulations.

1. “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into

account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

O20-18 This comment cites CEQA’s requirements that mitigation measures in an EIR be “fully enforceable” and then asserts that many policies and programs of the 2040 General Plan “relied on to mitigate” GHG emissions impacts are unenforceable and should be made mandatory. The comment appears to assert that policies included in the 2040 General Plan do not meet CEQA requirements for mitigation measures in an EIR.

In preparing the GHG analysis provided in the draft EIR, the County considered, and included references to the proposed 2040 General Plan policies and implementation programs most applicable to the analysis. As explained in the methodology subsection in Section 4.8, “Greenhouse Gas Emissions,” (page 4.8-7), the analyses evaluate whether the GHG reduction benefits of these policies and programs are supported by substantial evidence. Substantial evidence leading to estimates of GHG emissions resulting from implementation of the 2040 General Plan include both qualitative and quantitative assessments, consistent with Section 15064.4(a) of the State CEQA Guidelines. See Master Response MR-1-C for a description of the policies, programs, and measures included in the 2040 General Plan and draft EIR.

O20-19 The comment states that the 2040 General Plan has vague and unenforceable policies and programs that do not commit the County to specific actions and, thus, fail to mitigate impacts. The comment points out that some policies in the 2040 General Plan do not have associated implementation programs. It then describes Mitigation Measure GHG-4, which seeks to align these policies with additional programs through a stakeholder process as “unlawful” because it cannot serve as CEQA mitigation.

The case cited in the comment, *Anderson First*, concerns mitigation for traffic impacts in an EIR involving a gas station project. While mitigation at an individual project level can be expected to incorporate a high degree of specificity in the design requirements as mitigation, a general plan relies on policies and programs to guide future decision making over a larger scale, hence the analysis of the draft EIR as a programmatic document. As such, flexibility is provided within the 2040 General Plan for additional programs to be developed with stakeholder input that support implementation of the 2040 General Plan’s established policies.

The Climate Emergency Council established under COS-CC is intended to advise the Board of Supervisors on the latest science concerning climate change and potential actions that can be implemented. Addressing climate change is a grand challenge for communities that requires ongoing attention. Through the GHG Reduction Policy Enhancement Program proposed under Mitigation Measure GHG-4, the Climate Emergency Council would take on an additional

role of recommending programs to the Board of Supervisors, consistent with policies adopted as part of the 2040 General Plan.

For clarity, the County has revised Mitigation Measure GHG-4 to clarify the scope of its Greenhouse Gas Reduction Policy Enhancement Program and to clarify the membership and scope of the Climate Emergency Council. The full text of revised Mitigation Measure GHG-4 is provided below:

Mitigation Measure GHG-4: New Implementation Program COS-X HAZ-X: Greenhouse Gas Reduction Policy Enhancement Program and Revised Implementation Program COS-CC: Climate Emergency Council

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program COS-X HAZ-X: Greenhouse Gas Reduction Policy Enhancement Program

The Climate Emergency Council (CEC) that would be established under COS-CC shall develop recommended subprograms which implement the 52 policies identified in Table 4.8-7& of the draft EIR that do not have associated implementation programs in the 2040 General Plan. Any recommendations that would require amendments to the General Plan, including any subprograms that may include expansions to programs already proposed in the 2040 General Plan, shall be provided to the County Planning Director. The Planning Director shall include the recommendation in a report for consideration by the Planning Commission and Board of Supervisors. This report shall be presented to the Board of Supervisors.

For any additional future policies that may be adopted as part of the County's Greenhouse Gas (GHG) Reduction Strategy (2040 General Plan, Policy COS-10.1), the CEC may recommend new subprograms. The CEC shall demonstrate in the materials submitted to the Board of Supervisors that the proposed subprograms and policies would result in quantifiable GHG emission reductions that further the County's progress towards achieving the 2030, 2040, and 2050 GHG reduction targets and goals established in the 2040 General Plan. The GHG emission reduction policy topics that may be considered and analyzed by the CEC for recommendation to the Board of Supervisors are identified in the Table 4.8-7 and include but are not limited to the following:

- ▶ Sustainable Technologies;
- ▶ Regional Bicycle Infrastructure;
- ▶ Funding and Maintenance for Sidewalks;
- ▶ Amtrak Service Improvements;
- ▶ Routine Use of Alternative Transportation Options;
- ▶ Permeable Pavement;
- ▶ Facilities for Emerging Technologies;
- ▶ Electric Vehicle Charging Stations;

- ▶ Neighborhood Electric Vehicles;
- ▶ Shared Mobility Operations;
- ▶ Sustainable Community Facility Design;
- ▶ Energy Efficient Facility Construction, Purchases, Leases, Retrofits, and Expansions;
- ▶ Agricultural Waste Reuse;
- ▶ Value-Added Alternatives to Waste Disposal;
- ▶ Smart Grid Development;
- ▶ Consistent Fire Protection Standards for New Development;
- ▶ Soil Productivity;
- ▶ Incentives for Energy Efficiency;
- ▶ Battery Energy Storage Systems;
- ▶ Air Pollutant Reduction;
- ▶ Air Pollution Impact Mitigation Measures for Discretionary Development;
- ▶ Transportation Control Measures Programs;
- ▶ Alternative Transportation Modes;
- ▶ Urban Greening;
- ▶ Integrated Pest Management Practices;
- ▶ Technological Innovation; and
- ▶ Renewable Energy Facilities.

The CEC's recommended GHG reduction subprograms and policies shall be presented to the Planning Commission for review and recommendation to the Board of Supervisors, and then to the Board of Supervisors for consideration and approval, no later than 2025. The Board of Supervisors shall have sole authority to adopt (including as modified) and direct the County's implementation of the subprograms and policies that are developed and recommended by the CEC. Any CEC recommendation that would require amendments to the 2040 General Plan, County ordinances, policies or regulations shall be processed and approved by the County in accordance with all applicable legal requirements.

~~Any recommendations that would require amendments to the General Plan, including any subprograms that may include expansions to programs already proposed in the 2040 General Plan, shall be provided to the County Planning Director. The Planning Director shall include the recommendation in a report for consideration by the Planning Commission and Board of Supervisors. This report shall be presented to the Board of Supervisors by 2025.~~

The County shall also include the following revised implementation program in the 2040 General Plan.

Implementation Program COS-CC: Climate Emergency Council
The County shall establish a Climate Emergency Council (CEC) by a resolution of the Board of Supervisors to advise the Board of Supervisors on climate action planning and implementation of the Climate Action Plan (CAP) goals, policies, and programs.

The County agency or department responsible for implementation of this program shall draft, administer, and maintain the CEC bylaws. Initial establishment of the CEC and its bylaws shall include the following terms, duties, and membership composition:

- ▶ Term of each member is two years. At the conclusion of a term, a CEC member may be re-appointed or re-selected, as applicable, for a consecutive term by the appointing authority.
- ▶ Duties of the CEC members include attendance at duly called meetings; review, in advance, of all written material provided in preparation for CEC meetings; serve and participate on committees and/or sub-committees; and contribute to the CEC's advisory recommendations to the Board of Supervisors;
- ▶ The officers of the CEC shall be Chairperson and Vice-Chairperson.
 - Officers shall be elected annually at regular meeting each year by CEC members. Nomination shall be made from the floor. Election shall be by simple majority.
 - Officers shall serve a one-year term. An officer may be re-elected, but no individual shall serve more than three full consecutive terms in the same office. No member shall hold more than one office at a time.
 - The Chairperson shall preside at all meetings of the CEC, sign all correspondence, reports, and other materials produced by the CEC, and perform any and all other duties prescribed by the CEC from time to time. The Chairperson may serve as an ex-officio member of all committees.
 - The Vice-Chairperson shall represent the Chairperson and/or substitute in performance of the Chairperson during their absence.
- ▶ Membership of the CEC shall be comprised of the following:
 - One person representing each Supervisorial District who has demonstrated interest in and knowledge of climate action planning shall be nominated by each of the five members of the Board of Supervisors, and confirmed by a majority of the Board of Supervisors resulting in a total of five Supervisorial District representatives;
 - One resident from each of the designated disadvantaged communities identified in the 2040 General Plan who has demonstrated an understanding of their community's needs as well as an interest in and knowledge of climate action

planning shall be appointed by a majority of the Board of Supervisors; and

- Two additional at-large members who have demonstrated special interest, competence, experience, or knowledge in climate action planning shall be selected by a majority of the CEC members.
- Each member is entitled to one vote on each matter submitted to a vote of the CEC.

References within the draft EIR version of Mitigation Measure GHG-4 referring to Planning Director approval of amendments to the 2040 General Plan have been deleted. It is accurate, however, to note that the specifics of the programs developed by the Climate Emergency Council cannot be known at this time. As explained in the “Significance After Mitigation” subsection (draft EIR page 4.8-48): “Mitigation Measure GHG-4 could result in additional GHG emission reductions by prompting the County to explore subprograms based on the recommendations of a Climate Emergency Council that support the policies and implementation programs of the 2040 General Plan. This approach would allow the County to develop programs and actions with increased specificity using the latest available research, tools, and methodologies available in the evolving field of climate action planning and GHG reduction.” The comment offers no suggestions for evaluation.

Mitigation Measure GHG-4 would create a new program that creates an important role for local stakeholders within the County whose expertise and perspectives will be highly valued. This represents a good-faith effort by the County to continue to evaluate ways to address emissions in the unincorporated county. Specific reductions in GHG emissions cannot be attributed to this mitigation measure, however, and Impacts 4.8-1 and 4.8-2 remain significant and unavoidable.

O20-20 The comment summarizes more detailed comments provided elsewhere in the comment letter. Refer to responses to comments O20-21 through O20-26, regarding proposed 2040 General Plan policies.

O20-21 The comment proposes that certain new policies be added to the Land Use Element of the 2040 General Plan as “mitigation measures and/or as part of a ‘Climate and Public Health Alternative’ that would reduce the significant impacts of oil and gas development.” Policies proposed in this comment would: “prohibit new oil and gas extraction on all lands within the County’s unincorporated area” to reduce GHG emissions and protect public health and welfare; make existing oil and gas operations become nonconforming uses that would be phased out according to a specified schedule; terminate all nonconforming existing oil and gas operations in the shortest time period necessary and no later than 2045 unless prohibited by State or federal law.

Refer to Master Response MR-4.J, “Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations),” for a discussion on mitigation measures in the form of new General Plan policies to phase out existing oil and gas facilities. Refer to Section 6.4.4, “Limit Active and Idle Wells and Reduce Oil

Well Emissions Alternative,” (draft EIR page 6-8) and Section 6.4.5, “Eliminate or Reduce Existing Oil and Gas Wells or Production Alternative,” (draft EIR page 6-9) for a discussion of alternatives to the proposed 2040 General Plan that would limit increases in the number of active and idle wells in the county (Section 6.4.4) and eliminate or greatly reduce the number of existing oil and gas wells in the county, and/or the amount of oil and gas extracted from existing wells in the county (Section 6.4.5).

As explained in the draft EIR (Section 6.4.4), the alternative to limit increases in the number of active and idle wells was considered but rejected from further evaluation because major elements of an alternative to limit increases in the number of new discretionary oil and gas wells are included in the 2040 General Plan, including policies COS-7.2 regarding buffer distances from residential dwellings and schools, COS-7.8 regarding use of pipelines to convey oil and produced water, and COS-7.9 regarding collection of gases instead of flaring.

The draft EIR explains that an alternative that would eliminate or greatly reduce the number of existing wells (Section 6.4.5) was rejected from further evaluation because it focuses on one specific land use and does not comprehensively address most of the basic project objectives. This alternative would also present economic feasibility issues that could be implicated by County efforts to eliminate or reduce production from existing oil and gas wells (page 6-9), which would need to occur over an extended time period in order to be legally feasible.

The commenter’s request that mitigation measures in the form of new General Plan policies that would prohibit new oil and gas extraction on all lands within the county’s unincorporated area are not a component of the project under evaluation (i.e., the 2040 General Plan). The existence of these existing oil and gas facilities are part of the baseline as considered in the evaluation of environmental impacts in the draft EIR. Impacts resulting from the change that implementation of the 2040 General Plan on baseline conditions are evaluated in the draft EIR with corresponding mitigation measures to lessen significant environmental impacts, where applicable. As such, the commenter’s proposed policies have not been identified as potential mitigation measures in the draft EIR.

O20-22

The comment suggests that additional policies related to oil and gas operations should be incorporated into the 2040 General Plan to require that all new or expanded wells undergo discretionary review and CEQA review and that oil and gas facilities operating with antiquated conditional use permits be subject to the County Zoning Ordinance, 2040 General Plan, and other local regulations and standards. As noted in the comment, the Board of Supervisors has directed staff to prepare an ordinance expanding the discretionary approval requirements for expansion of existing oil and gas facilities. This is occurring as a process separate from the 2040 General Plan. If implemented, more future activities would be considered discretionary and would be subject to the requirements of the policies proposed in the 2040 General Plan.

The comment also asserts that not requiring discretionary review for all new and expanded oil and gas operations in the 2040 General Plan means that the draft EIR “fail(s) to ensure” that new and expanded oil and gas operations “will comply with

new policies and programs to reduce GHG emissions and address other impacts.” The analysis in the draft EIR assumes that the 2040 General Plan policies will apply only to discretionary wells permits. The 2040 General Plan and draft EIR have no obligation to ensure that actions under established permits subject to ministerial review meet the same requirements proposed for discretionary actions.

The impact analysis conducted in the draft EIR evaluates the effects that 2040 General Plan policies and programs would have on future GHG emissions associated with 2040 General Plan implementation, including oil and gas extraction-related emissions associated with 2040 General Plan implementation. This comment is not otherwise related to the adequacy of the draft EIR, as it does not demonstrate how the policies proposed would address significant impacts identified in the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer to Section 4.12, “Mineral and Petroleum Resources,” in the draft EIR for a discussion of the potential for the 2040 General Plan to affect petroleum and mineral resources.

O20-23

The comment requests evaluation of a policy that would prohibit certain oil and gas extraction methods, such as well stimulation and cyclic steaming, as a mitigation measure, because these extraction methods could adversely affect air quality, greenhouse gas emissions, toxic and seismic hazards, and water quality. Note, however, that these types of oil and gas extraction methods have not been identified in the draft EIR as resulting in any potentially significant impacts associated with implementation of the 2040 General Plan. Therefore, because no significant impacts were identified, it would not be appropriate for the County to identify prohibitions on these activities as mitigation measures in the draft EIR for the 2040 General Plan. The specific effects and merits of proposed oil and gas extraction methods will be evaluated during project-level permit review of new discretionary oil and gas wells conducted by California Geologic Energy Management Division (CalGEM, formerly DOGGR) and the County. Refer to Chapter 3, “Revisions to the Draft EIR,” which includes additions to Section 4.12.1, “Background Report Setting Updates,” in the draft EIR for additional information about the responsibilities and jurisdiction of CalGEM and the County regarding petroleum extraction methods and procedures. As explained in this section, CalGEM has regulatory authority over well stimulation and underground injection. The County lacks legal authority to directly regulate or prohibit well stimulation, cyclic steaming, and other subsurface oil and gas production methods due to State law preemption. Consequently, this policy would be legally infeasible. Refer to Master Response MR-4.A for further discussion of the County’s authority to regulate oil and gas development.

O20-24

The comment suggests revisions to policies included in the Conservation and Open Space Element and additional policies related to petroleum extraction and energy use be added to the 2040 General Plan. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

The new and revised policies related to oil and gas resources are not evaluated in this final EIR because they would not directly address significant impacts

identified in the draft EIR. Similarly, the proposed revisions to energy-related policies are not evaluated in detail because Section 4.6, “Energy,” of the draft EIR concludes that the 2040 General Plan would not result in wasteful, inefficient, or unnecessary consumption of energy or conflict with or impede State or Local Plans for Renewable Energy or Energy Efficiency. As a result, no mitigation is required. In addition, although Policies COS-8.1, COS-8.7, COS-8.8, and COS-8.9 are listed for context in Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR, they are not relied upon in the analysis and the proposed revisions would not substantially reduce identified impacts. The commenter’s three new policies presented as energy resource conservation measures to further reduce GHG emissions are discussed in greater detail below.

- ▶ ***Commenter’s Policy COS-xx, Carbon-free Economy. The County will prioritize and facilitate a rapid transition to a carbon-free economy countywide.***
 - It is unclear what actions would be taken to “prioritize” and “facilitate” a transition to a carbon free economy. Without clear performance criteria, it would not be possible to gauge whether this measure is effectively implemented or what, if any, effect on the potential for the 2040 General Plan to generate GHG emissions would result. For this reason, this policy has not been considered as mitigation for the impacts identified in Section 4.8 of the draft EIR.

Note that the 2040 General Plan includes policies supportive of reducing use of nonrenewable energy resources. For example, through Policy COS-8.6, the County would support the transition to zero net carbon for new buildings. In addition, the draft EIR evaluated Zero Net Energy Buildings Alternative in the draft EIR that focuses on creating incentive programs to encourage the retrofit of existing buildings, which account for the majority of GHG emissions in the county. As discussed in Chapter 6, “Alternatives,” modest reductions in GHG emissions would be anticipated because “building emissions would account for a relatively small fraction of the County’s greenhouse gas inventory and forecast and the County’s authority is limited” (draft EIR page 6-21).

- ▶ ***Commenter’s Policy COS-xx, Non-fossil Fuels for County Facilities and Fleets. The County will actively pursue a rapid transition to a diversity of non-fossil fuel alternatives for all County facilities and vehicle fleets.***
 - This policy would not effectively mitigate impacts identified in the draft EIR because it is duplicative of policies already considered in the analysis. As identified in Section 4.8 of the draft EIR, alternative fuel vehicle purchases would be prioritized through Policy PFS-2.6 and renewable energy features would be encouraged in all discretionary development (Policy COS-8.8). Through Conservation and Open Space Element Implementation Program COS-T, the County would continue to review its energy consumption

performance and implement programs designed to increase energy efficiency in County-owned buildings, including investigating and implementing new energy technologies such as solar and fuel cells.

- ▶ ***Commenter’s Policy COS-xx, Non-fossil Fuels Manufacturing and Distribution. The County will actively pursue, through the development of incentives and streamlined permit review, increasing a diversity of renewable energy manufacturing and distribution facilities countywide.***
 - This policy would not effectively mitigate impacts identified in the draft EIR because it is duplicative of policies already considered in the analysis. As identified in Section 4.8 of the draft EIR, the County would work to decarbonize communitywide electricity supply through Policy COS-8.5. Conservation and Open Space Element Implementation Program Q would incentivize the development of the Renewable Energy Priority Zone sites. To do so “the County shall consider waiving permit fees and providing a reduction on the annual property tax assessment for the portion of land used for renewable energy generation or storage.” Further, through Policy EV-4.4, the County would “identify appropriate locations to allow for development of renewable energy generation and storage facilities and encourage the development of innovative approaches to renewable energy deployment, including solar power, wind power, wave energy, distributed power systems and micro-grids, and other appropriate renewable sources and storage and distribution system.”

The comment also references potential GHG mitigation measures not included in the 2040 General Plan and draft EIR. Refer to response to comments O1-29 and O20-30 for mitigation measures considered for the 2040 General Plan and draft EIR that were determined to be infeasible. Response to comment O20-08 further addresses enforcement measures and mitigation as required under CEQA.

The draft EIR includes an analysis of 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county (pages 4.8-37 to 4.8-45). Moreover, Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR includes seven feasible mitigation measures that meet CEQA requirements and address the potentially significant GHG emission impacts of the 2040 General Plan (draft EIR pages 4.8-45 to 4.8-47). Thus, the draft EIR correctly identifies and considers feasible and enforceable mitigation measures to reduce GHG emissions.

O20-25

The comment suggests that additional policies should be incorporated into the 2040 General Plan that would impose additional (undefined) County safety standards for oil and gas pipelines that traverse fault lines and require “seismic and other geotechnical studies” that evaluate proposed injection wells at the County-level. The comment is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer to Section 4.7, “Geologic Hazards,” in

the draft EIR for a discussion of the potential for the 2040 General Plan to expose people or structures to significant seismic ground shaking.

O20-26 The comment suggests additional policies that could be considered in the 2040 General Plan to support established State and federal regulations related to petroleum extraction, use and transport of hazardous materials, and remediation of abandoned well sites. The comment is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

O20-27 Refer to response to comment O20-16.

O20-28 Refer to response to comment O20-16.

O20-29 This comment asserts that the draft EIR analysis of alternatives does not comply with CEQA and that the draft EIR's "failure to disclose the extent and severity of the Project's climate impacts distorts the document's analysis of Project alternatives." The draft EIR provides a legally sufficient study of alternatives. In Chapter 6, "Alternatives," the draft EIR explains the County's obligation. Section 15126.6(a) of the State CEQA Guidelines requires EIRs to describe "... a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will avoid or substantially lessen the significant adverse impacts of a project, and foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible."

With respect to the draft EIR analysis of GHG emissions impacts, as established in the above responses, the County provided a reasoned analysis of GHG impacts, which concluded that the 2040 General Plan would result in significant and unavoidable GHG-related impacts because it cannot be determined at this program level of analysis that future GHG emissions in the unincorporated county would meet State 2030 and post-2030 targets for GHG reduction (Impact 4.8-1 and Impact 4.8-2). Based on the conclusion that these impacts would be significant, the County considered alternatives to the 2040 General Plan in the draft EIR that would avoid or substantially lessen the effects while supporting the Guiding Principles contained in Section 1.2 of the 2040 General Plan.

As described in response to comment O20-21, two alternatives that principally would limit oil and gas extraction were considered in the draft EIR but dismissed from detailed evaluation. Also refer to the response to comment O20-30.

O20-30 As noted by the commenter, three alternatives that could reduce GHG impacts were dismissed from further analysis. However, the three alternatives that were selected for detailed analysis in the draft EIR (Alternative 2: Existing Community and Urban Area Designations Alternative, Alternative 3: Dense Cores Alternative, and Alternative 4: Zero Net Energy Buildings Alternative) would each lessen the

significant GHG emissions impacts of the 2040 General Plan, although not to a less than significant level.

The commenter provides no evidence to indicate that an alternative general plan that includes either further restrictions of oil and gas production or that prohibits the land use would avoid or substantially lessen any of the significant effects caused by implementation of the 2040 General Plan as proposed. It should be noted, that in the 2015 GHG inventory oil and gas production only accounts for 16.3 percent of GHG emissions within the county (Attachment 2 to the final EIR). Further, policies addressing existing oil and gas wells would not address environmental impacts associated with implementation of the 2040 General Plan. In addition, the draft EIR does not identify significant impacts attributable to future oil and gas extraction specifically that would warrant such a targeted alternative. Refer to the response to comment O20-21 explaining the reasons why the “Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative,” (draft EIR page 6-8) and the “Eliminate or Reduce Existing Oil and Gas Wells or Production Alternative,” (draft EIR page 6-9) were rejected from detailed consideration in the draft EIR. Refer to response to comment O20-31 for discussion of the “Carbon Neutrality Alternative” and the reasons why it was rejected from further evaluation in the draft EIR (starting at draft EIR page 6-9). Also refer to Master Response MR-4, Section MR-4.J, “Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations),” and MR-4.A, “County’s Authority to Regulate Oil and Gas Development,” for response to the comment’s assertion that reducing both new and existing oil and gas operations in the County is legally feasible and discussion of the County’s authority to regulate oil and gas development.

As described in response to comment O20-21, alternatives that principally would limit oil and gas extraction were considered in the draft EIR but dismissed from detailed evaluation. Also, as previously noted in Section 4.8 of the draft EIR, due to regulations adopted in 2018, methane emissions from oil and gas extraction are regulated through CARB’s GHG Regulations for Crude Oil and Natural Gas with local assistance from the VCAPCD. These regulations require reporting and retrofitting of existing wells to reduce methane emissions in existing operations. The regulations also apply to new oil and gas wells requiring permits from VCAPCD. Additionally, CalGEM has jurisdiction over nearly 101,300 wells throughout the State that are defined as active or idle oil producers. The recently established Idle Well Program has created mandates for idle oil and gas wells that include a compliance schedule to test for leaks and plug and abandon wells, engineering analysis for wells and enhanced idle well management plans.

The draft EIR includes policies and implementation programs to reduce GHG emissions in the county (pages 4.8-37 to 4.8-45), and mitigation measures that meet CEQA requirements and address the potentially significant GHG emission impacts of the 2040 General Plan (draft EIR pages 4.8-45 to 4.8-47). Thus, the draft EIR correctly identifies and considers 2040 General Plan policies and programs in the GHG emissions analysis conducted in the draft EIR and correctly includes feasible and enforceable mitigation measures in the draft EIR analysis of GHG emissions.

O20-31 The comment states that the draft EIR improperly disclaims the County's authority to fight climate change, asserting that the draft EIR omits detailed consideration of a project alternative focused on "carbon neutrality."

The draft EIR provides a robust discussion of the reasons that the Carbon Neutrality Alternative is dismissed. Although carbon neutrality is often used colloquially to describe activities that do not substantially contribute to release of GHGs, by definition, such an alternative would require a mechanism to ensure that any carbon emissions are accounted for and offset (usually through purchase of credits) or wholly eliminate the release of carbon dioxide from all existing and future land use and activities in the unincorporated county. Achieving carbon neutrality would require "transformational changes to all aspects of society" that "are outside of the County's or any individual local government's ability to directly control or effect" (draft EIR page 6-10).

This alternative would require "[m]ajor changes to lifestyles and behaviors of individual residents and businesses...either as a result of major government intervention or in tandem with it" (draft EIR page 6-11). The discussion in the draft EIR describes many obstacles to implementing this alternative, which include mandating retrofit of existing homes, creating new employment opportunities, and eliminating fossil fuel consumption in existing buildings. The County concluded that requiring carbon neutrality for the entire unincorporated county would be infeasible due to the County's limited authority to mandate such changes, particularly to existing structures and employment sectors, the significant private and public costs to implement, and because of the County's lack of legal authority to implement and potential infringement on property rights.

However, please note that the 2040 General Plan does include policies and implementation programs to achieve GHG reductions and the draft EIR includes detailed discussion (pages 4.8-37 to 4.8-52) of how implementation of the 2040 General Plan would put the County's future emissions on a downward trajectory and would be consistent with and supportive of a larger State, national, or international effort to achieve carbon neutrality (for discussion of the 2040 General Plan's policies and implementation programs to reduce GHG emissions refer to Section 4.8, "Greenhouse Gas Emissions"). Further, Alternative 4, which is evaluated in detail, is the Zero Net Energy Building Alternative. This alternative focuses on creating incentive programs to encourage the retrofit of existing buildings, which account for the majority of GHG emissions in the county. Alternatives 2 and 3, also evaluated in detail in the draft EIR, would reduce the significant GHG emissions impacts of the 2040 General Plan through creation of more compact development pattern and integration of land uses relative to the 2040 General Plan, which would reduce the number and length of single occupancy vehicle trips, and support notable increases in walking, biking, use of public transit, and other alternatives to driving.

O20-32 This comment is a concluding statement and does not raise a significant environmental issue for which a response is required.

O20-33 The comment references attachments to the main body of the letter. The County has reviewed the attachments and determined that they do not contain comment on the content or conclusions of the draft EIR, nor do they raise any significant environmental issues for which a response is required. All comment letters submitted to the County on the draft EIR are provided with complete attachments in Attachment 1 to this final EIR.

MusickPeeler

ATTORNEYS AT LAW

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LOS ANGELES
ORANGE COUNTY
SAN DIEGO
SAN FRANCISCO
SANTA BARBARA COUNTY
VENTURA COUNTY

**Letter
021**

FILE NO: 13084 021

February 25, 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

Ventura County Board of Supervisors
Attn: Susan Curtis, Manager, General Plan Update Section
General Plan Update
800 South Victoria Avenue L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County 2040 General Plan Draft Environmental Impact Report (State Clearinghouse No. #2019011026)

Dear Ms. Curtis:

On behalf of Coast Ranch Family, LLC ("Coast"), I write to you with comments concerning the Draft Environmental Impact Report for the 2040 General Plan ("DEIR"). Coast is a significant landowner and mineral owner in Ventura County and the lessor under operating oil and gas leases. Upon review of the DEIR, we conclude that it is deficient in a number of ways and we respectfully request that the DEIR be significantly revised and recirculated as required by the California Environmental Quality Act and the corresponding State CEQA guidelines.

O21-1

Rather than repeat all of the deficiencies, we hereby incorporate by reference the detailed commentaries supplied to you by Aera Energy, LLC substantially concurrently with this letter as well as the comments from the Western States Petroleum Association and other operators of producing fields in Ventura County.

O21-2

From an overview perspective, the single biggest defect is the failure to consider the economic consequences of various policies contained within the Draft Ventura County 2040 General Plan as depicted in the DEIR. The loss of royalty income to a significant number of lessors, the significant increased cost to the economy should oil and gas production be further negatively impacted, the loss of property tax revenue to the County, the failure to address the feasibility or more appropriately said the infeasibility of many of the measures contained in the DEIR, etc. render the DEIR as materially deficient and therefore in violation of CEQA.

O21-3

We tried to be respectful of your time by not just repeating the detailed comments otherwise provided as referenced above, but please be assured that does not mean that those

O21-4

Musick, Peeler & Garrett LLP

MusickPeeler

Ventura County Board of Supervisors
February 25, 2020
Page 2

comments are not significant and require deep attention in the form of a curing of the legal deficiencies and of recirculation of the DEIR prior to any approval of the 2040 General Plan. | O21-4 cont.

Thank you for your attention to these comments.

Very truly yours,



Laura K. McAvoy
for MUSICK, PEELER & GARRETT LLP

LKM:srk
cc: Coast Ranch Family, LLC
1203509.1

Musick, Peeler & Garrett LLP

| | |
|-----------------------|------------------------------------------------------------------------------------------------------|
| Letter O21 | Coast Ranch Family LLC Laura K. McAvoy, Musick, Peeler, & Garrett LLP February 25, 2020 |
|-----------------------|------------------------------------------------------------------------------------------------------|

- O21-1 The description of Coast’s role and operations in Ventura County are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.
- O21-2 The commenter refers to letters submitted by Aera Energy, Western States Petroleum Association (WSPA), and “other operators.” Refer to responses to Letters O5 and O6 (from Aera Energy LLC) and O37 (from WSPA).
- O21-3 The comment asserts that the draft EIR failed to consider economic consequences associated with policies in the 2040 General Plan. However, EIRs are not required to treat a project’s economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR. Also refer to the response to comment O2-10.
- O21-4 The commenter refers to letters submitted by Aera Energy, WSPA, and “other operators.” Refer to responses to Letters O5 and O6 (from Aera Energy LLC) and O37 (from WSPA).
- Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.



Community
Environmental
Council

26 West Anapamu St., 2nd Floor, Santa Barbara, CA 93101
 (805) 963-0583 FAX: (805) 962-7080

Letter
O22

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- Deborah Williams

February 27, 2020

Board of Supervisors, Ventura County
 Ventura County Government Center
 Hall of Administration
 800 S. Victoria Avenue
 Ventura, CA 93009

Re: Ventura County 2040 General Plan: Draft Environmental Impact Report

Dear Chair Bennett and Supervisors,

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Ventura County General Plan Update. The Community Environmental Council (CEC) is working with dozens of partners on many climate solution projects throughout Ventura County, including electric vehicle readiness, energy efficiency planning, renewable energy and energy storage development, food waste reduction, and carbon farming and sequestration activities.

Ventura County is the fastest warming county in the lower 48 United States, and is already experiencing a range of devastating and expensive impacts¹. While language in the DEIR is careful to point out that federal policy lacks support for strong emissions regulation and that most local GHG emissions will come from current development, the State of California is leading with innovative programs to drive down emissions and the County should implement the most effective local policies that will curb emissions, mitigate impacts, and build community resilience in the current climate crisis.

CEC strongly urges the County to set higher carbon reduction goals, as well as incorporate a carbon neutrality goal at or before 2045, as guided by Executive Order B-55-18, mandating that California reaches carbon neutrality by 2045. CEC suggests the County of Ventura adopt a similar goal as the County of Santa Barbara, planning for a 50% reduction of greenhouse gas emissions from 1990 levels by 2030. CEC also encourages the County to set aggressive carbon neutrality goals, such as the City of San Luis Obispo's current Climate Action Plan seeking carbon neutrality by 2035.

¹ <https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-california/>

O22-1

O22-2



Community
Environmental
Council

26 West Anapamu St., 2nd Floor, Santa Barbara, CA 93101
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As acknowledged in the draft General Plan (page 4.8-40), the County will not reach the goal of reducing emissions to 41.3% of 2015 baseline levels by 2030 through the policies outlined. Although the County’s goal is to reach the 2030 goals for GHG emissions reductions, the DEIR only quantifies approximately 30% of those emissions reductions and leaves the rest to mostly voluntary actions. Further, the DEIR indicates that the climate impacts of GHG emissions resulting from growth over the next 20 years will be “significant and unavoidable”, yet presents very few quantifiable mitigation actions to reduce them. As a result, the County is at a very high risk for failing to meet its own GHG emissions reduction goals, the state’s goals of Carbon Neutrality by 2045, and for experiencing increased climate impacts.

O22-2
cont.

In response, CEC suggests modifying existing policies or creating new policies to include more quantifiable targets to support the following:

- An oil and gas tax on new and existing operations that seeks to slowly phase out oil and gas production by 2045, in line with State carbon neutrality goals, while creating revenue to fund climate action programs
- Parking and pricing policies that disincentivize driving
- Electrification of light duty and medium-heavy duty vehicles
- Increased zero-emissions vehicle miles traveled
- Electrification of the county fleet
- An actionable food waste reduction plan that supports SB 1383
- An unincorporated county zero waste goal
- Restrictions on new oil and gas development
- Elimination of existing oil and gas operations within environmental justice communities
- Programs to sequester carbon in our natural and working lands

O22-3

Adopting these enforceable policies will have a measurable impact that can be accurately assessed in the EIR.

In 2019, CEC partnered with the Ventura County Regional Energy Alliance and the Ventura County Air Pollution Control District to develop an Electric Vehicle Readiness Blueprint² that outlined targets and strategies for a county-wide transition to zero emissions vehicles in-line with State mandates. We suggest that the County refer to this document as a reasonable guide for setting policy goals with quantifiable impacts. The County can leverage its role as an employer of approximately 8,000 people to enact measures such as building charging stations at all county facilities and establishing programs to help employees adopt EVs at a faster rate than the general population.

The County can lead by example by emulating the State’s mandates for zero emissions vehicles in its general services department³. The County can also look to the City of San Luis Obispo’s goal of replacing

² <https://www.vcenergy.org/electric-vehicle-blueprint/>

³ <https://green.ca.gov/fleet/about/initiatives/>



Community Environmental Council

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40% of VMT with electric miles by 2030 for setting its own similar target in the unincorporated County areas.

As it stands, Appendix B is not an actionable climate action plan. It kicks the can down the road by proposing a Climate Emergency Council (CEC), established under COS-CC, to consider future policies. Instead, actionable policies should be included by the County through this planning process.

O22-3
cont.

CEC would like to recognize the efforts of the general plan team to incorporate Environmental Justice themes throughout the draft General Plan; however, there is a glaring lack of accountability to Ventura County's environmental justice and frontline communities in the DEIR as well as a lack of prioritizing projects that would correct these historic injustices. Specifically, there is no analysis or mitigation strategy to support the plan's Environmental Justice guiding principle to "...protect disadvantaged communities from a disproportionate burden posed by toxic exposure and risk...". Failure to deeply analyze which communities face disproportionate impacts, beyond the SB 244 definition of a "disadvantaged unincorporated community" creates a gap in addressing their needs outside of the parameters of basic environmental protection outlined in LU-17.3.

O22-4

CEC recommends that the County establish a more substantial, locally relevant definition of an Environmental Justice Community with both qualitative and quantitative elements. The County should also prioritize specific mitigation measures for disproportionately impacted communities, or set enhanced mitigated measures for growth in those communities, and incorporate them into the EIR.

While the draft plan and draft EIR are stated to be in line with state mandates for GHG emissions reductions, they fall short of meeting the bold and drastic changes needed to help our communities be truly adaptive and resilient. The draft General Plan fails to adequately mitigate for climate change impacts, finding a significant and avoidable impact. Other communities have adopted more complete Climate Action Plans that calculate mitigation measure that allow these agencies to reduce their emissions in line with State goals. The County of Ventura's planning fails in these areas and needs significant revision before the EIR can be certified and the General Plan adopted.

O22-5

Sincerely,

Sigrid Wright

Executive Director, Community Environmental Council

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|-----------------------|--------------------------------------------------------------------------------------------------|
| Letter O22 | Community Environmental Council Sigrid Wright, Executive Director February 27, 2020 |
|-----------------------|--------------------------------------------------------------------------------------------------|

- O22-1 The description of the Community Environmental Council’s role and the climate change background in Ventura County are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- O22-2 The comment recommends setting higher carbon reduction goals and a carbon neutrality goal for the 2040 General Plan consistent with executive orders and goals set by the County of Santa Barbara and the City of San Luis Obispo. Refer to Master Response MR-1 for discussion of how the County established its GHG reduction target for 2030 and reduction goals for 2040 and 2050 in alignment with State targets and goals.
- O22-3 The comment recommends a series of new or modified policies. Each of the recommendations was considered as follows:
- ▶ An oil and gas tax on new and existing operations that seeks to slowly phase out oil and gas production by 2045, in line with State carbon neutrality goals, while creating revenue to fund climate action programs
 - Refer to Comment Response O2-12.
 - ▶ Parking and pricing policies that disincentivize driving
 - Refer to Comment Response 01-19.
 - ▶ Electrification of light duty and medium-heavy duty vehicles
 - Supported through the expansion of EV charging stations and neighborhood EVs in LU-11.3, CTM-6.5, CTM-6.6, and PFS-2.8.
 - ▶ Increased zero-emissions vehicle miles traveled (VMT)
 - The 2040 General Plan Circulation, Transportation and Mobility Element seeks to reduce VMT from all types of vehicles, in compliance with Senate Bill 743.
 - ▶ Electrification of the County fleet
 - Program PSF-F calls for the County to provide support for the use of electric vehicles and would provide charging for these vehicles at County facilities.
 - ▶ An actionable food waste reduction plan that supports Senate Bill 1383
 - Program PSF-L Food Waste Recovery is an action that would support the intent of this recommendation. Under this program the County shall

provide educational and informational materials to restaurants, grocery stores, and other food providers, as part of food handler permitting, to support donation of safe, unused food to non-profit service agencies.

- ▶ An unincorporated county zero waste goal
 - Refer to comment response O1-19.
- ▶ Restrictions on new oil and gas development
 - Refer to Master Responses MR-1 and MR-4.
- ▶ Elimination of existing oil and gas operations within environmental justice communities
 - Refer to Master Responses MR-1 and MR-4.
- ▶ Programs to sequester carbon in our natural and working lands
 - Refer to 2040 General Plan Policy AG-5.5 and AG-L Carbon Farming Practices which describes several potential actions that the County would support to increase carbon sequestration and directs the County to initiate such programs. Policies COS-C and COS-H also support sequestration through tree planting. Impact discussion 4.8-2, page 4.8-51 states “as part of future monitoring activities, the County may also consider new technologies that support GHG reduction or CO2 sequestration and determine the potential application of these within the county.”

O22-4 The comment states that the draft EIR does not include analysis or mitigation to support the 2040 General Plan’s Environmental Justice guiding principle and define a locally relevant definition of an “Environmental Justice Community.” Environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. However, EIRs are not required to treat a project’s economic or social effects as significant effects on the environment (CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The social issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR.

O22-5 Refer to Master Response MR-1 for discussion of the draft EIR’s significant and unavoidable impact conclusions for GHG emissions (Impacts 4.8-1 and 4.8-2) and the feasible mitigation measures included in the draft EIR to address the significant GHG emissions impacts of the 2040 General Plan.



Letter
023

LiUNA! LABORERS'
LOCAL 585
Feel the Power

February 27, 2020

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, California 93009

Re: General Plan Update Draft Environmental Impact Report Comments

Dear Ms. Curtis,

We represent workers in Ventura County through the Tri-Counties Building & Construction Trade Unions, LiUNA Local 585, International Brotherhood of Electrical Workers (IBEW 952), and Southwest Carpenters.

Our organization advocates for local government policies that support the rights of workers, their families and communities. We advocate for policies that support a strong economy that provides robust opportunities for a skilled, well-trained workforce. We are committed to fight against policies that restrict the ability to work in the high-paying jobs that afford our members lifetime career opportunities.

O23-1

The Draft Environmental Impact Review (DEIR) does not sufficiently evaluate the impacts that the General Plan policies will have on jobs and the economy. It falls short of addressing the housing crisis facing Ventura County. It does not do enough to address the need for increasing housing supply in the county.

O23-2

The General Plan Update disproportionately targets the local oil and gas industry that have worked in Ventura County for decades. The DEIR underrepresents the number of workers who would be impacted by the oil and gas policies outlined in the General Plan.

We represent a diverse group of workers who depend on high-paying jobs with upward mobility and benefits for our families. The suggestion that our members should re-train from a specialized skill they have dedicated their career to is objectionable. The DEIR must address the salary differences and opportunities between the suggested green jobs of a carbon neutral economy and those currently held by the skilled workforce.

Our primary goal is to ensure our members' jobs and families are protected. Upon review of the General Plan Update it is clear that jobs will be impacted and in some cases eliminated and that is not reflected in this iteration of the DEIR.

We respectfully ask that the county revises and recirculates the DEIR and takes the time to thoughtfully analyze the impacts these policies will have on working families. The General Plan is a critical factor in the county's economic success. It should encourage economic growth and opportunity for working people.

O23-3

Sincerely,

Martin Rodriguez
President
Tri-Counties Building & Construction Trades Council

Tony Skinner
Executive Secretary-Treasurer
Tri-Counties Building & Construction Trades Council

Jeff Bode
Business Manager
International Brotherhood of Electrical Workers Local 952

Anthony Mireles
Business Manager
LiUNA Laborers Local 585

Mercy Urrea
Southwest Regional Council of Carpenters

| | |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Letter O23 | <p>Laborers' International Union of North America Martin Rodriguez, President, Tri-Counties Building & Construction Trades Council Tony Skinner, Executive Secretary-Treasurer, Tri-Counties Building & Construction Trades Council Jeff Bode, Business Manager, International Brotherhood of Electrical Workers Local 952 Anthony Mireles, Business Manager, LiUNA Laborers Local 585 Mercy Urrea, Southwest Regional Council of Carpenters February 27, 2020</p> |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

- O23-1 The description of the role of the commenting organization is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- O23-2 The comment generally asserts that the draft EIR provides an insufficient evaluation of the impacts of the 2040 General Plan on jobs and the economy and does not address the need for increased housing in the county. EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The comment does not establish a connection between impacts on jobs and the economy and any adverse physical changes to the environment not already addressed in the draft EIR. Therefore, any evaluation of these impacts would be considered speculative under the California Environmental Quality Act and the County correctly excluded such analysis from the draft EIR.
- Housing and the potential for the 2040 General Plan to contribute to demand for housing that cannot be accommodated by the land use designations established in the land use diagram is evaluated in Section 4.14, "Population and Housing," in the draft EIR. Specifically, the analysis on page 4.14-10 indicates: "While an increase in employment opportunities within the plan area is expected during the 2040 planning horizon, the county has adequate capacity to meet the current Regional Housing Needs Assessment allocation for housing in all household income categories. In addition, policies and programs within the 2040 General Plan would ensure that housing needs, including future housing needs for the projected increase in low-income employment would be met." No changes to the draft EIR have been made in response to this comment.
- O23-3 The comment expresses concern that the draft EIR underrepresents the number of workers that would be affected by the oil and gas policies in the 2040 General Plan and that the draft EIR does not address impacts related to loss of jobs in the oil and gas industry. However, EIRs are not required to treat a project's economic or social effects as significant effects on the environment (CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The economic issues raised in this comment would not

result in any adverse physical changes to the environment not already addressed in the draft EIR.

Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.



Letter
024

February 24, 2020

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, California 93009

Via email: GeneralPlanUpdate@ventura.org

Re: General Plan Update Draft Environmental Impact Report Comments

Dear Ms. Curtis,

The Oxnard Chamber of Commerce advocates for policies that will lead to both economic growth and a stronger community. The Chamber works on behalf of over 500 businesses and organizations that employ more than 30,000 people. We promote the business and economic well-being of Oxnard’s diverse community to benefit enterprises, large and small. The Chamber advocates for public policies that continue the creation and retention of jobs in order to promote a healthy Oxnard economy.

O24-1

We appreciate the opportunity to comment on the General Plan’s Draft Environmental Impact Report (DEIR). This collaboration allows the Chamber to continue to support policies that will create both a sustainable energy future and a growing economy for our region.

One of the overarching concerns with the DEIR is the lack of specificity related to how the environment is actually protected by these proposals. This is in part due to the descriptions surrounding many of the suggested policies being very vague and lacking sufficient details. Not only does this make these projects more difficult to explain and comprehend, but it also allows for more room for error when attempting to implement such projects.

O24-2

Additionally, the analysis surrounding the various projections and forecasts in the DEIR is often flawed, biased, and misleading as part of a larger effort to discredit Ventura oil and gas producers who make significant contributions to the County. In section 6.4.6, Carbon Neutrality, the rejection is appropriate. However, it severely understates the number of individuals employed in the oil and gas industry. Would the DEIR consider adding jobs that would be impacted by a complete shutdown? It should consider service employees, contractors, accountants, food service vendors. Jobs in the oil and gas industry are high paying and cannot simply be replaced with a mass quantity of green energy jobs. A proper comparison of salaries would be important to fully understand the impacts of the proposed policies.

O24-3

Furthermore, in 2018, the industry provided more than \$56 million to state and local taxes, of which \$21 million that went to supporting Ventura County schools and public safety agencies. The DEIR did not address where this significant portion of the budget would be addressed.

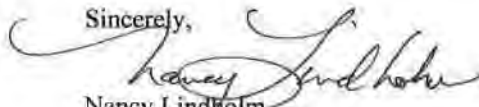
Housing is perhaps the most important issue facing Ventura County. The DEIR does not sufficiently address solutions to this issue and the potential impacts of its proposals. Implementation Program AG-X, Mitigation Measure GHG-1, or Policy COS-6.5 are all items that impact the availability of affordable housing. The General Plan outlines policies that limit the construction and development of new affordable housing. Why is Implementation Haz X not considered a hindrance to building more affordable housing? A suitable alternative would continue to allow natural gas since it is the most affordable and reliable heat source for low-income houses. The DEIR does not take into consideration sky high electricity bills as the alternative to natural gas.

O24-4

Residents have entrusted the Planning Department with this process. The DEIR has the potential to play a significant role in creating a sustainable economic future, but only if it is carefully tailored to the greater needs of Ventura County. We urge you to revise and recirculate it to the public.

O24-5

Sincerely,



Nancy Lindholm
President/CEO

| | |
|-----------------------|-----------------------------------------------------------------------------------------|
| Letter O24 | Oxnard Chamber of Commerce Nancy Lindholm, President/CEO February 24, 2020 |
|-----------------------|-----------------------------------------------------------------------------------------|

O24-1 The description of Oxnard Chamber of Commerce’s role in the county is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

O24-2 The comment asserts that the draft EIR lacks sufficient detail regarding “suggested policies” and how the environment is “actually protected by these proposals” and states that this causes “these projects (to be) more difficult to explain and comprehend” and “room for error when attempting to implement such projects.” No specific references or examples are provided to support this claim. The draft EIR analyzes, at a programmatic level, the physical environmental changes that could occur upon implementation of the 2040 General Plan and provides sufficient specificity regarding the environmental protections anticipated to result from the proposed policies and programs of the 2040 General Plan. Where the benefits of the policies and programs are unclear or otherwise not supported by substantial evidence, they have not been relied upon as the basis for impact significance conclusions in the draft EIR. Refer to Master Response MR-2 for more explanation of how policies and programs of the 2040 General Plan are evaluated in the impact analysis conducted in the draft EIR.

O24-3 The comment claims that the analysis in the draft EIR is “flawed, biased, and misleading” and serves a greater initiative to “discredit Ventura oil and gas producers.” The only substantiation provided is the lack of specific information about the quantity and salary of individuals employed in the oil and gas industry and the taxes paid by the oil and gas industry in the draft EIR explanation of why the Carbon Neutrality Alternative was dismissed from detailed analysis in the

draft EIR. The draft EIR acknowledges that individuals employed in the oil and gas industry could be displaced by this alternative and the County has limited authority to set aside jobs in the renewable energy sector specifically for these employees. Further detail is not necessary to support the dismissal of the alternative.

Note that EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR.

O24-4

The comment describes the importance of housing in the county, states that the draft EIR “does not sufficiently address solutions” to the issue of housing, and asserts that the draft EIR does not sufficiently address impacts to affordable housing, including impacts from Mitigation Measure AG-2 (Implementation Program AG-X) regarding agricultural conservation easements to offset loss of Important Farmland, Mitigation Measure GHG-1 (Implementation Program HAZ-X), which would prohibit natural gas infrastructure in new residential development, and Policy COS-6.5, which requires an evaluation of mineral resources where discretionary development is proposed on land identified on the current mineral resource zone maps by the California Geological Survey and requires setbacks from existing mining operations (2040 General Plan, Section 6.5 Soil and Mineral Resources, page 6-11). The comment specifically refers to natural gas as the “most affordable” heat source for low-income households and the “sky high” cost of electricity.

The population and housing effects of the proposed 2040 General Plan policies are evaluated in the draft EIR in Section 4.14, “Population and Housing.” Using the significance thresholds provided in the State CEQA Guidelines and adopted in the County's Initial Study Assessment Guidelines, the draft EIR analysis of housing impacts addresses whether implementation of the 2040 General Plan would eliminate three or more existing affordable housing units or displace substantial numbers of people or housing units (Impact 4.14-1 starting at page 4.14-5) and result in low-income employment opportunities that could generate demand for new housing that exceeds the County's inventory of land to develop low-income housing (Impact 4.14-3 starting on page 4.14-9). The draft EIR concludes that these impacts would be less than significant because implementation of the 2040 General Plan would not displace substantial numbers of housing units, including affordable housing units, and because the 2040 General Plan includes policies and programs to provide adequate provision of low-income housing for projected increases in low-income employment opportunities through 2040. The implementation of these two mitigation measures and 2040 General Plan policy would not result in direct or indirect impacts on affordable housing that are not already analyzed in the draft EIR.

The draft EIR is not required to analyze how implementation of the above policies would affect the affordability or cost of housing. As discussed above, EIRs are not required to treat a project's economic or social effects as significant effects

on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. In addition, a Lead Agency need not speculate about environmental impacts (State CEQA Guidelines, § 15145). The comment does not provide any facts or evidence regarding how the 2040 General Plan would affect the cost of housing or the “affordability” of housing; these economic impacts are speculative and not reasonably foreseeable. Moreover, any physical impacts resulting from such economic impacts cannot be defined and are not reasonably foreseeable. Evaluation of these impacts of the two mitigation measures and General Plan policy on the cost of housing or affordable housing was correctly excluded from the impact analysis conducted in the draft EIR.

O24-5 Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.



BOARD OF HARBOR COMMISSIONERS
 Jess Ramirez President
 Jason T. Hodge Vice President
 Mary Anne Rooney Secretary
 Jess Herrera Commissioner
 Celina Zacarias Commissioner

Letter 025

PORT MANAGEMENT
 Kristin Decas CEO & Port Director

Foreign Trade Zone #205

February 27, 2020

Ms. Susan Curtis
 General Plan Update Manager
 County of Ventura
 800 S. Victoria Ave.
 Ventura, CA 93009

**RE: Comment on Draft Environmental Impact Report for the County of Ventura
 Draft 2040 General Plan**

Dear Ms. Curtis,

The Port of Hueneme appreciates the opportunity to comment on the *Draft EIR* for the County's *2040 General Plan*. The inclusion and thoroughness exhibited throughout this document is appreciated. The Port applauds the detailed work of County staff, and the deliberate inclusion of economic vitality spurring sustainable development within our County.

O25-1

We respectfully submit the following comment:

1. Pg. 4.13-29 Impact 4.13-7 Expose Noise-Sensitive Land Uses to Railroad Noise and Vibration that Exceeds Applicable Standards

We ask the County to revise this section to clarify that the costs associated with measuring noise levels surrounding railways for the 2040 General Plan Policies – HAZ-9.2 and HAZ-9.6 will not be placed on the owner or operator of the railroad.

O25-2

We suggest the following text to clarify:

“However, 2040 General Plan Policies-HAZ-9.2 and HAZ-9.6 would ensure indoor noise levels in habitable rooms do not exceed 45 dBA CNEL and outdoor noise levels do not exceed 60 dBA L10 and would require an acoustical analysis to determine noise levels and provide appropriate reduction measures. *Costs associated with measuring these noise levels will not be the burden of the railroad owner, nor operator.* As required by 2040 General Plan Policy HAZ-9.1, the County would

P.O. Box 608 • 333 Ponomo Street • Port Hueneme, CA 93044-0608 • 805-488-3877 • 805-488-2620 fax



prohibit discretionary development which would be impacted by noise that cannot be reduced to meet the standards prescribed in Policy HAZ-9.2.”

O25-2
cont.

Sincerely,

Kristin Decas
CEO & Port Director

The Port of Hueneme
Oxnard Harbor District

| | |
|-----------------------|-----------------------------------------------------------------------------------------------------------|
| Letter O25 | Port of Hueneme: Oxnard Harbor District Kristin Decas, CEO & Port Director February 27, 2020 |
|-----------------------|-----------------------------------------------------------------------------------------------------------|

- O25-1 This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- O25-2 The comment requests that the draft EIR be edited to state that railroad owners and operators would not be responsible for costs associated with measuring railroad noise levels in responses to Policies HAZ-9.2 and HAZ-9.6 proposed in the 2040 General Plan. This comment about the entity responsible for bearing certain costs in response to policies of the 2040 General Plan is noted but is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

Renaissance Petroleum, LLC

P.O. Box 20456
Bakersfield, CA 93390-0456
Phone 661-324-9901 / Fax 661-324-9902

Letter
026

February 26, 2020

By: Email only

Ms. Susan Curtis
General Plan Update Manager
Ventura County Planning Division
800 S. Victoria Ave.,
Ventura, CA 93009

Re: Comments to Draft EIR to Ventura County General Plan

Dear Ms. Curtis,

I find redundancy and flaws in the description and analysis of the 2040 General Plan released January 13, 2020 (Draft EIR) that significantly impact potential policy changes. I will specifically address two proposed new policy items associated with Section 4.12, Mineral and Petroleum Resources.

O26-1

1. On page 4.2-8, the Draft EIR is proposing “**new policy**” as described as COS-7.2 (revised page 4.12-18): Oil Well Distance Criteria. Under this new policy the “*County shall require that new discretionary oil and gas wells be sited a minimum of 1,500 feet from the well head to sensitive use structures which include dwellings, childcare facilities, hospitals, health clinics, and school property lines.*” In light of the “significant and unavoidable” impact that COS-7.2 (DEIA page 4.12-22) would have on hampering or precluding access to petroleum resources in Ventura County and potentially exposing the County to liability for damages associated with precluding landowners the right to enjoy the benefit of the development of their mineral resources, the County should suspend the inclusion COS-7.2 until the State legislature has had the opportunity to deal with the matter and develop policy (i.e. AB345) which most probably will be in conflict with any form of COS-7.2 that the County develops.

In the last several years there has been an abundance of information published by setback advocates concerning setbacks from oil and gas production facilities. Health related studies of populations living in the vicinity of an oil and gas production facility are not conclusive, and may be significantly biased by knowledge that a facility, previously unknown, is “discovered” to exist. From my own review of the published sources, none conclusively establish an appropriate setback distance and, because wells and facilities differ, not one size fits all. A steam injection related facility on the Oxnard Plain is significantly different from a light oil and gas facility on the Oxnard Plain; both oil and gas, but each has radically differing impacts. The former having the lingering smell of tainted rotten eggs and the latter no noticeable emissions impacts at all. The majority of the published studies used by both the Los Angeles County and California Council on Science and Technology that were cited as support in the Draft EIR were performed in areas outside of California (i.e. TX, CO, PA etc.) where the regulatory requirements for emissions from oil and gas facilities are significantly less stringent than those required in California, of which the APCD in Ventura County has been ahead of the pack for over a decade.

O26-2

In conclusion, suspending action of a setback requirement until the State has generated policy is a prudent course of action given the uncertainty associated with the implantation of COS-7.2 and the potential liability that the County could be exposed to in the future. Lastly, existing Ventura County policy has not been demonstrated to be inadequate.

Oil & Gas Exploration – Exploration Management – New Business Development

2. On page 4.2-8, the Draft EIR is proposing “**new policy**” as described as COS-7.7 (revised page 4.12-31): Conveyance for Oil and Produced Water. Under this new policy the “*County shall require new discretionary oil wells to use pipelines to convey crude oil and produced water, if feasible. Trucking of crude oil and produced water may only be allowed if the proponent demonstrates that conveying the oil and produced water via pipeline is infeasible. In addition, trucking of crude oil and produced water is allowed in cases of emergency and for testing purposes consistent with federal, state and local regulations.*” The current VCNCZO establishes oil development guidelines and states that “An applicant should use the guidelines in the design of the project and anticipate their use as permit conditions, unless the applicant can demonstrate that they are not feasible or practicable” (VCNCZO §8107-5.5.) and further states that “Pipelines should be used to transport petroleum products off-site to promote traffic safety and air quality” (VCNCZO §8107-5.5.a).

O26-3

As stated in the above, the requirement to utilize pipelines to transport petroleum products is based on the feasibility and practicality of utilizing a pipeline as oppose to other sources of transportation such as trucking. Feasibility and practicality include the economic feasibility of a pipeline in support of a project. I am cited on page 4.12-23 of the DEIR analysis where my firm, Renaissance Petroleum, LLC (RenPet), provided Ventura County an economic evaluation for the interconnection of RenPet’s Cabrillo Oil Field to a pipeline to transport crude oil. The DEIR correctly summarizes the findings that such a project would be uneconomic.

Figure 4.12-4 of the Draft EIR is fatally flawed. The map purportedly displays “Major Oil Transmission Pipelines” in yellow and includes an orange “2 Mile Setback” in an effort to show the proximity of the majority of the oil production in Ventura County to crude oil pipelines. As a significant flaw, the lines shown as yellow on Figure 4.12-4 **include gas transmission lines**. These gas transmission lines represent the majority of the “Major Oil Transmission Pipelines” shown on the map. Please refer to the Grand Jury sourced map attached to my 2016 memo for an accurate presentation of crude oil transmission pipelines in Ventura County (see attached). There is significantly less access to a crude oil pipeline than Figure 4.12-4 and its setback distance suggests, and south of SR 101 there is very limited access. The implantation of COS-7.7 could strand significant crude oil resources located south of SR 101 to the financial detriment of the landowners in this area and Ventura County. As a result, what is characterized as a potentially significant impact (DEIR page 4.12-31) **should be elevated to a significant impact, based on the flawed map included in the DEIR as Figure 4.12-4.**

O26-4

Thank you very much for your consideration of my comments.

Respectfully submitted,



Marc Wade Traut
President

Attachment MWT memo to file 12-22-2016

| | |
|-----------------------|--------------------------------------------------------------------------------------|
| Letter O26 | Renaissance Petroleum, LLC Marc Wade Traut, President February 26, 2020 |
|-----------------------|--------------------------------------------------------------------------------------|

- O26-1 The comment summarizes more detailed comments provided elsewhere in the comment letter. See responses to comments O26-2 through O26-4, below, regarding proposed 2040 General Plan policies.
- O26-2 Refer to Master Response MR-4 for discussion regarding 2040 General Plan Policy COS-7.2, which would require that new discretionary oil and gas wells be located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school.
- O26-3 Refer to Master Response MR-4 for discussion regarding 2040 General Plan Policy COS-7.7, which would require new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be allowed to be trucked for new discretionary oil wells.
- O26-4 The comment asserts that the Figure 4-12.4 (Major Oil Transmission Pipelines Map in the draft EIR inaccurately depicts both oil and gas transmission lines. Figure 4-12.4 (draft EIR page 4.12-25) depicts the major oil transmission pipelines in the County as reported by the following Geographic Information System (GIS) mapping layers: CAL FIRE 2007 (State), 2008 (Local), and 2016 (Federal); USGS, 2013; DOGGR, 2019. Similarly, Figure 4.12-5 Major Gas Transmission Pipelines Map includes the major gas transmission pipelines in the County as reported by the following GIS mapping layers: CAL FIRE 2007 (State), 2008 (Local), and 2016 (Federal); USGS, 2013; DOGGR, 2019; VCAPCD, 2017. These figures depict the individual oil (Figure 4-12.4) and gas (Figure 4-12.5) transmission pipelines as reported by the agencies responsible for providing regulatory oversight and GIS mapping layers mapping layers to local jurisdictions. Therefore, both figures depict the best available data for oil and gas transmission pipelines in the county. No revisions to the draft EIR have been made in response to this comment.



Letter
027

Jennifer Pe
Environmental Po
555 W. Fifth Street, GCT 2105
Los Angeles, CA 90013

Email: jpezda@semprautilities.com

6/21/2019
Susan Curtis
RMA Planning Division, General Plan Update
800 South Victoria Avenue., L #1740
Ventura, CA 93009-1740

RE: Ventura County 2040 General Plan Update and Climate Action Plan

Dear Ms. Curtis,

SoCalGas appreciates the opportunity to submit comments on County’s Preliminary Public Review Draft General Plan (Draft Plan). We have been continually engaged in the development of the Draft Plan and further appreciate the opportunities to attend public workshops, planning commission meetings, and participate in online surveys as means to submit feedback throughout the planning process. We believe this document will provide valuable direction for the County to pursue effective, long-term sustainable planning goals. SoCalGas especially supports the County’s direction to pursue policies that promote furtherance of renewable energy development and expansion while also contributing to regional and local resiliency. We support many of the policies currently included in the Draft Plan and look forward to partnering with the County to achieve these ambitious strategies and actions. We do believe the Draft Plan could benefit from active identification and incorporation of the following takeaways:

- **The Draft Plan can be greatly enhanced by pursuing significant synergies between production and use of renewable natural gas (RNG) and the County’s renewable energy goals, waste reduction/diversion targets, and emission reduction strategies.**
- **Because the pipeline system that delivers RNG is inherently resilient to aboveground climate events, it can greatly help increase the resiliency of County infrastructure and operations to climate hazards and impacts.**

O27-1

Most prominently, we are excited at the potential opportunities that exist between the county’s waste reduction and diversion targets, as stated in the Draft Plan, and development and use of RNG resources that can drive and incentivize their attainment. RNG can be produced from existing waste streams within the County, including organic waste, green waste, and agricultural waste. This aligns with the goals of Strategy PFS-5.5 – “support the beneficial reuse of agricultural wastes...such as energy generation” and PFS-5.6 – “promote value-added alternatives to solid waste management, such as...energy.” Further, the organic waste diversion incentives generated by RNG production would also help the County achieve the organic waste diversion targets mandated under SB 1383. Similarly, use of existing waste

resources to produce RNG aligns with the County’s emphasis to increase the use of renewable energy as stated in Policy COS-8 and its supporting strategies that advocate promoting development and use of renewable energy resources (including bioenergy) and transitioning to zero net energy buildings (Strategies COS-8.1 and 8.5, respectively). We are ecstatic to see that such synergies are acknowledged in the GHG Mitigation and Climate Adaptation Measures in the County’s Draft Climate Action Plan, Appendix B of the Draft Plan, such as in Policy AG-L which prompts the County to develop a program to coordinate public-private local investment in biogas control systems.

Because RNG is produced from existing methane sources that are otherwise being emitted into the air, unabated, capturing these emissions to produce RNG helps reduce both regional and local methane and GHG emissions. As a short-lived climate pollutant, methane has a greater global warming potential than carbon dioxide—specifically, methane is approximately 28 times more potent than carbon dioxide in the atmosphere^{1,2}. From a lifecycle perspective, because RNG production removes a greater quantity of more potent GHG emissions from the air than what it produces at end uses, its production is a **carbon negative process**, and can be used to offset other uses that cannot achieve carbon neutrality. As the County is aware, SoCalGas recently filed a request with the California Public Utilities Commission seeking to offer RNG to all customers, which would have significant potential to significantly reduce both local and regional GHG emissions. In fact, replacing only 20% of existing natural gas supply with RNG achieves the same emissions reductions as electrifying the entire building sector by 2030, but at one-third of the cost.³ For these reasons, we recommend that the Draft Plan include additional policies and supportive strategies to promote both production and use of RNG as an incentive mechanism to enhance organic waste reduction/diversion, in addition to use as a renewable fuel option for decarbonizing the building and transportation sectors.

O27-1
cont.

The underground natural gas system is more resilient than the aboveground electric system

Use of RNG as a renewable energy source also has synergies with County resilience goals and targets. As stated at the recent Planning Commission General Plan Update Workshop on June 13th, 2019, County staff directly acknowledged the dual importance of decarbonizing energy supplies but while also keeping in mind the critical importance of energy reliability. As we know, the impacts of global climate change are set to continually increase in severity, which will result in more severe wildfires, storms, and floods. Wildfire risk, specifically, is one of the most prominent climate change hazards facing the County, especially as just over the past two years Southern California has experienced two of the largest wildfires in the State’s history that burned millions of acres and destroyed thousands of homes and property, a significant portion of which occurred within Ventura County. To this end, SoCalGas supports the draft policies

¹ IPCC. Global Warming Potential Values https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf

² California Air Resources Board (CARB). Understanding Global Warming Potentials. <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>

³ PR Newswire. New Study Advises Policymakers to Consider Renewable Natural Gas for Low-Carbon Buildings Strategy. August 8, 2018. <https://www.prnewswire.com/news-releases/new-study-advises-policymakers-to-consider-renewable-natural-gas-for-low-carbon-buildings-strategy-300691318.html>

aimed at enhancing local adaptive capacity such as Policy HAZ-11.4, which supports education and outreach efforts to inform local communities about climate change impacts, and Policy HAZ-P, which aims to identify critical infrastructure vulnerable to extreme heat.

As seen in the recent wildfires and mudslides that ravaged Southern California, energy system vulnerability is a significant factor that affects local resilience to such hazards. As the electric system is almost entirely aboveground, it is significantly more exposed to threats and, when impacted, can not only leave hundreds to thousands of residents without power at their homes, but also affect operation of critical facilities. For example, in 2017 the Thomas Fire damaged electric power lines throughout the City of Ventura. Because the City's water pumps to supply water to firefighters ran on electricity without any other form of backup power, firefighters were unable to get water from the pumps to put out burning residences⁴. If the water pumps had been connected to a backup power system, such as a natural gas generator, firefighters would have been able to access the water.

In contrast, as the natural gas system is mostly underground, it is very resilient to extreme weather events. For example, in 2012, after Superstorm Sandy, the entire natural gas system in the Northeast was essentially intact, allowing residents to support back-up generators, cook, and keep warm. Businesses with natural gas-powered fuel cells were able to operate and compressed natural gas (CNG) buses in New Jersey were used to shuttle residents to safety⁵. Further, when Hurricane Harvey temporarily disabled almost 30% of the nation's refining capacity, CNG shuttles were able to continue operating, and hospitals that had on-site combined heat and power systems were able to provide urgently needed medical attention, despite flooding. These examples demonstrate the critical role natural gas infrastructure can play in supporting local and regional energy supply resilience in the face of extreme climate events and use of renewable natural gas can achieve additional co-benefits in reducing GHG emissions.

SoCalGas has been engaging with stakeholders and consultants to conduct case studies and risk assessments of the natural gas system with the intent to demonstrate the security and resilience of our system. SoCalGas intends to use this information to help local and regional cities and counties undertake similar efforts to identify system and infrastructure vulnerability. We also offer our annual Climate Adaptation and Resilience Grant⁶ to local cities and counties to help fund efforts to update and develop local adaptation and resilience plans. We greatly appreciate recognition of our grant in the Draft Climate Action Plan and encourage the County to apply during this year's application period.

O27-1
cont.

⁴ ICF. Case Studies of Natural Gas Sector Resilience Following Four Climate-Related Disasters in 2017. <https://www.socalgas.com/1443742022576/SoCalGas-Case-Studies.pdf>

⁵ https://www.energy.gov/eere/articles/5-ways-alternative-fuels-aid-response-hurricanes-and-natural-disasters?utm_source=EERE+Weekly+Digest+of+Clean+Energy+News&utm_campaign=f048cbec65-EMAIL_CAMPAIGN_2017_09_25&utm_medium=email&utm_term=0_96dffafa2f-f048cbec65-34678197

⁶ SoCalGas Climate Adaptation and Resiliency Planning Grant Program. <https://www.socalgas.com/smart-energy/sustainability-at-socalgas/climate-grant>

Looking forward, we believe renewable natural gas will play an important role in the County's renewable energy plans and help it achieve State GHG emission reduction goals, organic waste diversion goals, as well as climate resiliency goals. Decarbonizing our natural gas delivery system keeps intact the inherent energy efficiencies of direct uses of natural gas, at lower carbon-content, while also demonstrating synergies with County waste reduction goals by boosting efforts to enhance organic waste management and recycling. SoCalGas appreciates the opportunities provided by the County to engage throughout the formation of this Draft Plan and hopes to continue communication for the duration of the planning process. If you have any questions, please do not hesitate to reach out via telephone or email. Thank you!

O27-1
cont.

Sincerely,



Jennifer Pezda, MESM
Environmental Policy Advisor
Southern California Gas Company

| | |
|-----------------------|--------------------------------------------------------------------------------------------|
| Letter O27 | SoCalGas Jennifer Pezda, MESM, Environmental Policy Advisor February 27, 2020 |
|-----------------------|--------------------------------------------------------------------------------------------|

- O27-1 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.



Letter 028

Dean
Director of Policy, Strategy and Eng

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Susan Curtis
Manager, General Plan Update Section
Ventura County Resource Management Agency, Planning Division
800 South Victoria Avenue, L #1740
Ventura, CA 93009-1740

RE: County of Ventura – Draft 2040 General Plan Update EIR

Dear Ms. Curtis,

Southern California Gas Company appreciates the opportunity to submit comments on the Draft 2040 General Plan EIR (“DEIR”) and believes the document will provide valuable direction for the County to pursue effective, long-term development goals, as well as enhance local sustainability objectives. In particular, we support proposed policies that encourage beneficial reuse of County-generated waste for energy generation. Such policies have great potential to help reduce County GHG emissions, especially from agriculture and human waste streams.

O28-1

However, SoCalGas is concerned by one of the County’s proposed mitigation measures: MM GHG-1: New Implementation HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development:

Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development – To support the proposed reach codes under COS-S, the 2040 General Plan shall include a new program in the Hazards and Safety element that prohibits the installation of new natural gas infrastructure in new residential construction through amendments to the Ventura County Building Code. This program shall also be extended to include commercial building types such as offices, retail buildings, and hotels where the use of natural gas is not critical to business operations and contain appliances that can be feasibility substituted with electricity powered equivalents.” (pg. 4.8-45-46).

O28-2

While we support the County’s attempt to reduce emissions associated with buildings, this mitigation measure is technology-restrictive, may actually increase emissions and will limit the County’s ability to explore other innovative approaches to achieve emissions reductions in the future without deleveraging residents and businesses to hedge themselves against climate risks such as wildfires and household rising energy costs.

This type of ban would contravene California state law and policy as it relates to the availability of natural gas as a resource for residents and to the provision of a reliable and resilient energy supply. In addition, such a ban raises concerns under federal law.

Further, the DEIR’s analysis and treatment of MM GHG-1 is legally flawed under the California Environmental Quality Act (“CEQA”). First, the DEIR fails to consider, discuss or analyze the environmental effects of implementing MM GHG-1. Second, the County cannot rely on MM GHG-1 to mitigate GHG impacts caused by the 2040 General Plan because MM GHG-1 is “infeasible” under CEQA. Lastly, by finding that climate change impacts would remain significant and unavoidable even with implementation of MMs GHG-1 through GHG-3, the County has neglected to consider other GHG emission reduction strategies as potential mitigation in the DEIR.

O28-2
cont.

1. The DEIR Fails to Analyze the Environmental Impacts Associated with MM GHG-1

CEQA Guidelines section 15126.4(a)(1)(D) provides that, if a mitigation measure would itself cause significant environmental impacts, those impacts must be discussed in the EIR.¹ Here, the DEIR discusses what MM GHG-1 would consist of (*i.e.*, implementation of programs to prohibit natural gas infrastructure in new residential development, otherwise known as “Reach Codes”), notes that MM GHG-1 would implement Policy COS-8.6, which “will encourage zero net carbon emissions building design, which was assumed for quantifying GHG reduction benefits of the program”, and states that implementation of a Reach Code will be predicated on a “cost-effectiveness study” by the California Energy Commission (“CEC”).² However, the DEIR fails to discuss the potential environmental effects from implementing a Reach Code that bans or restricts natural gas in residential and/or commercial buildings.

O28-3

Substantial evidence indicates that adopting and implementing MM GHG-1 and Reach Codes could lead to the following significant environmental impacts under CEQA.

- **Utilities and Service Systems** – In the CEQA Guidelines Appendix G checklist,³ section “XIX. Utilities and Service Systems” asks whether proposed projects would “[r]equire or result in the relocation or construction of new or expanded water, wastewater treatment or storage drainage, *electric power*, ... facilities, the construction or relocation of which *could* cause significant environmental effects.”

¹ 14 Cal Code Regs. § 15126.4(a)(1)(D); *see also Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1027; *Stevens v. City of Glendale* (1981) 125 Cal.App.3d 986; *Ocean View Estates Homeowners Assn., Inc. v. Montecito Water Dist.* (2004) 116 Cal.App.4th 396, 400 (mitigation measures employed to prevent downstream flooding associated with reservoir project may themselves have a significant environmental impact, but was not analyzed); *Gray v. Cty. of Madera* (2008) 167 Cal.App.4th 1099, 1118 (EIR did not address potentially significant impacts associated with water quality mitigation measures).

² DEIR at 4.8-47.

³ *See* Governor’s Office of Planning and Research, Final Adopted Text of Revisions for CEQA Guidelines, http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf.

Adoption and implementation of a Reach Code would require new buildings to either be all-electric or, if mixed-fuel, likely subject to higher levels of energy efficiency than all-electric buildings. It is reasonably foreseeable that some developers will choose to develop buildings with all-electric energy, which will increase the demand for electricity; however, there is no analysis in the DEIR as to whether (i) the local grid has the generating resources and capacity to meet such increased demand for electricity, or (ii) whether the local public utility or load-serving entity has sufficient distribution or transmission assets to provide increased service in a safe and reliable manner.⁴ The DEIR fails to quantify increased electricity demand, how many additional generation, distribution or transmission assets may be needed to facilitate this increased demand, or how the construction or relocation of such assets could impact the environment.⁵

The need to substantially overbuild local power systems when natural gas is not used as a base load means that a much greater amount of land, habitat and related physical resources will be impacted by solar and wind generation facilities. In a scenario where natural gas is banned across the state, new solar arrays and wind farms will need to be fabricated, transported to, and installed throughout California at more than five times the historical rate of deployment every year for the next 25 years.⁶ This deployment will significantly impact the physical environment across California. The fabrication, transportation and construction of the required generation facilities will also generate GHG emissions that would have cumulative climate change impacts.

In addition, as more electric energy is utilized new transmission capacity must be fabricated, transported to and installed throughout the state to connect with thousands of miles of new nationwide transmission lines. Additional transmission facilities will have significant impacts to the physical environment and result in aesthetic and potentially cultural impacts. The fabrication, transportation, and construction of new transmission equipment and capacity will also generate GHG emissions.

Because renewable generation is intermittent, California will also be required to increase power storage capacity to unprecedented levels if natural gas is banned. Additionally, California would need to dramatically increase hydropower capacity by increasing the size of state reservoirs by as much as 100 times above current levels. Battery storage on this scale would have significant hazardous materials, human health,

O28-3
cont.

⁴ See, e.g., Pub. Res. Code § 451 (“Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.”).

⁵ Cf. *California Clean Energy Comm. v. City of Woodland* (2014) 225 Cal.App.4th 173, 208 (EIR for shopping center lacked required energy analysis despite stating, among other things, that existing facilities were sufficient to serve the project: “In addition, a substation, multiple utility lines (60 kV, 115 kV, and 230 kV), and gas transmission lines exist in the area to serve the buildout of the proposed project.”).

⁶ Clean Air Task Force, Comments On SB 100 Joint Agency Report - Charting a Path to a 100% Clean Energy Future, September 19, 2019, <https://efiling.energy.ca.gov/GetDocument.aspx?tn=229800&DocumentContentId=61244> (CATF 2019).

fire, fire suppression, and policing services, GHG emissions, and physical impacts. The construction of new hydropower storage would similarly have significant air quality, aquatic plant, animal and habitat, land, GHG emissions, water and hydrology, public safety, and other impacts.

O28-3
cont.

CEQA caselaw holds that EIRs must consider the effects of changes to the environment that can result from an expansion of facilities, services, or utilities to serve the project.⁷ Here, DEIR Chapter 4.17 does not cross-reference MM GHG-1 and fails to discuss how implementation of MM GHG-1 may lead to expanded facilities, services or utilities that would be necessary in the future when a Reach Code is adopted.

- **Greenhouse Gas (GHG) Impacts** – Implementation of a Reach Code under MM GHG-1 is predicated on the assumption that 100% electrified buildings are more energy-efficient and have a smaller carbon footprint than buildings with gas-powered appliances. Yet, multiple, independent studies demonstrate that such an assumption is not accurate.
 - In May 2019, the U.S. Department of Commerce, National Institute of Standards and Technology (“NIST”) published a study of the energy use, environmental impacts, and economic performance of residential buildings using either electricity or natural gas for space and domestic water heating. The analysis was based on a single-family home meeting all applicable building code requirements in Maryland. The NIST research concluded that a natural gas-heated home is more economical, results in “lower environmental impacts across numerous impact categories,” including lower GHG emissions, has a faster heating response time and generates a greater level of indoor comfort than an all-electric residence. In particular, GHG emissions were found to be higher because of the greater amount of fuels required to produce electricity for home use compared with the use of natural gas equipment in a residence.⁸
 - Although California has a larger proportion of renewable utility-scale energy than Maryland, consistent with the NIST study the CEC has also shown that, on average, natural gas generates substantially lower GHG emissions than electrical building use in California. As shown below, in 2018 the CEC estimated that electricity use in buildings produces a greater level of GHG emissions than natural gas about 60 percent of the year in California.⁹ Natural gas results in lower GHG emissions during a significant majority of all morning and evening hours in all months, the periods of highest residential energy demand. The significantly lower GHG emissions from natural gas use in California buildings

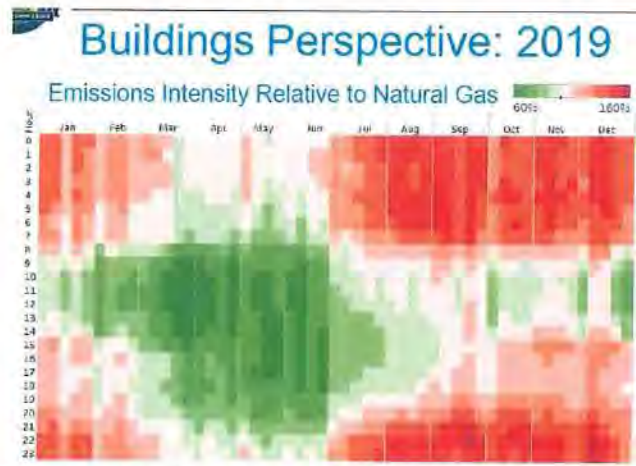
O28-4

⁷ *Galeta Union Sch. Dist. v. Regents of Univ. of Cal.* (1995) 37 Cal.App.4th 1025; *El Dorado Union High Sch. Dist. v. City of Placerville* (1983) 144 Cal.App.3d 123.

⁸ E. O’Rear, D. Webb, J. Kneifel and C. O’Fallon. *Gas vs electric: Heating system fuel source implications on low-energy single-family dwelling sustainability performance*. Journal of Building Engineering. September 2019 issue. Full text available at https://tsapps.nist.gov/publication/get_pdf.cfm?pub_id=926046.

⁹ CEC, Building Decarbonization, 2018 Update – Integrated Energy Policy Report, Presentation by M. Brook at June 14 2018 IEPR Workshop at 16, <https://efiling.energy.ca.gov/GetDocument.aspx?tn=223817>.

reflects the fact that, except during daytime hours from about March to June, intermittent solar and wind is insufficient to meet in-state building energy demand. When intermittent renewable energy is not available, electrical generation is less efficient and produces a greater level of GHG emissions than natural gas use in California buildings.



O28-4
cont.

- Other researchers have also questioned whether requiring all electric buildings might, however unintentionally, result in higher GHG emissions. Household energy demand tends to peak in the morning and evening hours, when residents are preparing to leave for or returning from work, school or other activities and when intermittent renewable power, particularly solar, is unavailable. At these times, electric supplies must be produced from other sources, including natural gas-fired power plants. Converting fuels, such as natural gas, to electricity to meet home demands is less efficient than directly using natural gas. As a result, a Stanford University researcher has estimated that when renewable power is unavailable, such as during the evening hours, residential electricity consumption produces *three times* more GHG emissions than natural gas.¹⁰
- The County cannot assume that, over time, GHG emissions from electrical generation will be reduced during peak morning and evening periods when natural gas is currently a lower emission energy source in the state. Recent studies indicate that even if additional intermittent wind and solar generation capacity is deployed, gas-fired electrical facilities will almost certainly remain essential to stabilize the state’s power grid. The gas-fired generators serving the state, however, may be forced to increasingly operate as short-term inefficient

¹⁰ See Anthony R. Kavscek, *Is a natural gas ban an ‘antidote to climate change’?*, San Jose Mercury News (Nov. 12, 2019), https://mercurynews-ca.newsmemory.com/?publink=754c8d2e3_13411ac. Professor Kavscek is a member of the Energy Resources Engineering faculty at Stanford University.

“peaker plants” which are known to emit more GHG emissions.¹¹ Thus, it is far from clear that an all-electric building mandate will reduce GHG emissions.

The DEIR must disclose and acknowledge potential GHG impacts that could occur from shifting building energy use from natural gas to electric power given reasonably foreseeable conditions in which electrical energy consumption would produce more GHG emissions than natural gas building use.

O28-4
cont.

- **Energy Impacts** – Under the CEQA Appendix G Checklist, a project may involve a significant environmental impact if it would result in “wasteful” or “inefficient” energy consumption. MM GHG-1 seeks to prohibit the installation of new natural gas infrastructure in new residential construction. But nowhere does the DEIR discuss how that may result in either (i) a failure to use already captured natural gas, or (ii) the expenditure of additional energy to transport or divert natural gas elsewhere. Studies have shown that low carbon natural gas may continue to be a viable resource in assisting the state with reaching its climate goals, and should continue to be utilized in typically hard to electrify thermal applications in residential, commercial and industrial uses.¹² Specifically, Renewable Natural Gas (“RNG”), or biomethane, can be produced from biomass wastes (e.g. forest, agriculture, waste water and food and green waste) and then processed to inject into existing pipelines. Because its production removes more potent greenhouse gas from the air (methane) compared to what is produced when used (carbon dioxide), RNG production can be carbon negative from a lifecycle perspective. The County cannot determine whether full electrification policies will have unintended consequences of “wasteful” or “inefficient” energy use, without first analyzing these impacts in the DEIR.

O28-5

- **Public Health and Safety** – In an era of increasingly dry and warm climates, and increased population in the wildfire urban interface along with build out of electrical infrastructure that could be an ignition source to serve population growth, California wildfires are occurring at increased frequencies and severities. Each of the three California investor-owned utilities adhere to wildfire mitigation plans (“WMP”) submitted to and approved by the California Public Utilities Commission (“CPUC”) — which establish internal mechanisms and protocols for de-energization events, also known as Public Service Power Shutoffs (“PSPS”). PG&E’s most recent PSPS event (occurring on October 6, 2019) impacted over 728,980 customers in 35 counties across the Sacramento Valley, Sierra Foothills, North Bay, South Bay, East Bay, Central Coast,

O28-6

¹¹ See, e.g., Mark Thurber, *Gas-fired generation in a high-renewables world*, Stanford University School of Earth, Energy & Environmental Sciences and Precourt Institute for Energy Natural Gas Initiative, NGI Research Brief (June 2018), https://ngi.stanford.edu/sites/g/files/sbiybj14406/f/NGI_Brief_2018-06_R3_Thurber.pdf.

¹² Energy + Environmental Economics, *Decarbonizing Pipeline Gas to Help Meet California’s 2050 Greenhouse Gas Reduction Goal* (Jan. 2005), https://www.ethree.com/wp-content/uploads/2017/02/E3_Decarbonizing_Pipeline_01-27-2015.pdf.

and parts of Southern California.¹³ Southern California Edison (“SCE”)— the investor-owned utility whose service territory includes the County — is likewise obligated to implement PSPS protocols in certain circumstances giving risk to wildfires and has done so on numerous occasions in 2019 and 2020. For example, on November 15-17, 2019, SCE instituted a PSPS event that was initially estimated to impact 31,975 customers on 48 circuits across four counties (including the County), although had a much smaller impact than originally considered.

It is evident that increasing the amount of power needed from the electrical grid, such as by reducing the use of natural gas and increasing the use of electricity, will only exacerbate these problems. Until that time, however, PSPS events will be the “new norm,” both in Northern and Southern California. In addition to the large-scale economic losses that customers suffer as a result of a PSPS event, public safety issues can also arise due to several factors. These include loss of power at critical medical facilities, added strain on first responder services (such as local police departments and EMTs), loss of school days, and disruption of critical city infrastructure during emergency responses (such as traffic lights). Although MM GHG-1 will contribute to an overloaded grid and exacerbate the economic and safety implications from future, likely PSPS events; the DEIR mentions none of these issues.

O28-6
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The County should consider how increased deployment of other technologies, such as microgrids and energy storage projects, can help achieve decarbonization and resiliency goals. A 2018 CEC report found that microgrid projects offer a number of “value propositions,” including renewable energy integration, grid resiliency, and carbon reductions.¹⁴ The CEC report concluded that microgrid projects align with the state’s Renewables Portfolio Standard and GHG reduction mandates.¹⁵ The County should analyze the effectiveness of these mitigation options instead of a ban on natural gas.

- **Impacts on Biological Resources, Water Quality and Noise Stemming From Additional Renewable Generating Resources** – As stated above, the County has not demonstrated how adopting and implementing MM GHG-1 will impact existing electricity demand. In other words, no evidence exists to support the notion that existing or future electricity load could meet energy demands if natural gas infrastructure is banned for all future residential construction. Rather, it is reasonably foreseeable that new renewable energy resources will be needed, in addition to those required under the California Renewables Portfolio Standard (“RPS”), to meet new building electrification policies. The CEC’s 2019 *California Energy Efficiency Action Plan Staff Report* acknowledges that statewide

O28-7

¹³ PG&E, “Public Safety Power Shutoff (PSPS) Report to the CPUC Oct. 9-12, 2019 De-Energization Event” (Oct. 25, 2019), at https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-10.09.19.pdf.

¹⁴ Asmus, Peter, Adam Forni, and Laura Vogel. Navigant Consulting, Inc. 2017. *Microgrid Analysis and Case Study Report*. California Energy Commission. Publication Number: CEC-500-2018-022, <https://ww2.energy.ca.gov/2018publications/CEC-500-2018-022/CEC-500-2018-022.pdf>

¹⁵ *Id.* at ii.

building electrification efforts “will seek to increase the share of renewable generation on the electricity grid....”¹⁶

The DEIR does not analyze how development of foreseeable additional renewable generating resources will impact the environment. Because it is likely that the County can determine with particularity the amount of MW or MWh that will be needed to fully implement MM GHG-1 in years to come, an accompanying analysis of generating resources and their potential environmental impacts must be provided. These renewable resource facilities are known to have their own environmental impacts associated with construction and operation, including but not limited to, impacts on federal and California sensitive species, water quality and quantity, nearby noise receptors, and project-related air quality impacts.

O28-7
cont.

Because such commercial-scale facilities might be located outside the County does not insulate the County from its obligation to consider the indirect environmental impacts from MM GHG-1. Indeed, “the purpose of CEQA would be undermined if the appropriate governmental agencies went forward without an awareness of the effects a project will have on areas outside of the boundaries of the project area.”¹⁷ It is well-settled that “the project area does not define the relevant environment for purposes of CEQA when a project's environmental effects will be felt outside the project area.”¹⁸

- Environmental Justice** – “Environmental justice” is defined as “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” Gov. Code § 65040.12(e). An Attorney General report defines “fairness” in this context to mean that “the benefits of a healthy environment should be available to everyone, and the burdens of pollution should not be focused on sensitive populations or on communities that already are experiencing its adverse effects.” “In addition, though CEQA’s main purpose is to evaluate whether a project may have a significant effect on the physical environment, “human beings are an integral part of the environment.”

O28-8

The CEQA Guidelines state that “[e]conomic or social effects of a project may be used to determine the significance of physical changes caused by the project. For example, if the construction of a new freeway or rail line divides an existing community, the construction would be the physical change, but the social effect on the community would be the basis for determining that the effect would be significant.” Here, MM GHG-1 would require the construction of new electric infrastructure, including within the County, to supply the electricity necessary to support a natural gas ban. This

¹⁶ California Energy Commission, *2019 Energy Efficiency Action Plan Draft Staff Report*, <https://efiling.energy.ca.gov/getdocument.aspx?tn=229496>.

¹⁷ *Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 369.

¹⁸ *County Sanitation Dist. No. 2 of Los Angeles County v. County of Kern* (2005) 127 Cal.App.4th 1544, 1582–1583.

physical change to the environment will lead to cost increases for ratepayers, an economic impact which must be considered under CEQA.

Before the County can adopt MM GHG-1, the DEIR must consider the impact it will have on customer affordability and ratepayers. About 90 percent of residential energy consumers in Southern California use natural gas for space and water heating, and ratepayers prefer a choice in how they heat their homes and cook their food. Further, according to a 2018 study produced by Navigant Consulting on behalf of the California Building Industry Association, switching to all-electric appliances could cost single-family homeowners in Southern California “over \$7,200 and increase energy costs by up to \$388 per year.” Low-income customers would be the most burdened by the costs of building electrification.

O28-8
cont.

Thus, as a resulting of adopting MM GHG-1, the County will have effectively established an unnecessary energy policy that will disproportionately impact its disadvantaged communities. Under CEQA, the County cannot gloss over this potential impact.

Given the substantial evidence that adopting and implementing MM GHG-1 will result in potential significant environmental impacts, the County is required to undertake proper CEQA review of such impacts, including both the direct and indirect environmental impacts stemming therefrom.

2. MM GHG-1 is Not “Feasible” under CEQA

Pursuant to CEQA Guidelines section 15126.4(a)(1), an EIR must “describe feasible measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy.” “Feasible” means “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”¹⁹ Courts do not defer to an agency’s determination that mitigation measures will work when their efficacy is not apparent and there is no evidence in the record showing they will be effective.²⁰ Here, there is no evidence that MM GHG-1 is feasible as a means to mitigate GHG-related impacts associated with the 2040 General Plan. In fact, evidence demonstrates that natural gas bans are environmentally, economically and technologically infeasible.

O28-9

Intermittent Renewable Generation Inhibits Feasibility of a Natural Gas Ban

Since 2015, several studies have evaluated the results of multiple assessments of national and California decarbonization strategies and options.²¹ Other studies have considered the power

¹⁹ CEQA Guidelines § 15364.

²⁰ See, e.g., *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1168; *Communities for a Better Env’t v. City of Richmond* (2010) 184 Cal.App.4th 70, 95; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1116-17.

²¹ See, e.g., P. Loftus et al., A critical review of global decarbonization scenarios: what do they tell us about feasibility?, WIREs Climate Change, January/February 2015, https://www.researchgate.net/publication/267875650_A_critical_review_of_global_decarbonization_scenarios_w

system and costs associated with relying solely on intermittent renewable power for decarbonization, in contrast with approaches that also utilize fossil fuels with CCS or renewable natural gas (“RNG”).²² These studies consistently conclude that renewable generation without a reliable baseload power source cannot achieve deep carbonization, will require installing massive amounts of additional generation and distribution facilities, and will be unaffordable.

- Relying on variable renewable sources such as wind, hydroelectric and solar to decarbonize will require the fabrication, installation and operation of approximately 3 to 10 times the level of solar and wind facilities that would be required if a reliable lower-carbon energy source was also utilized.²³ This overbuilding is required as intermittent power cannot achieve its nominal nameplate capacity—100 megawatts of solar or wind power will produce approximately 20-40 percent of capacity per year compared with approximately 90 percent capacity rates for natural gas. Thus, a much larger power system must be built to produce enough energy.
- As the percentage of intermittent renewable power serving a community increases, the amount of energy that is “curtailed” or wasted because it is not produced when needed can approach 40 percent of total generation.²⁴ Due to the timing mismatch between demand and the availability of solar and wind power, wind and solar would be unable to meet about 30 percent of California’s annual energy demand.²⁵ As a result, massive electrical power storage must be constructed, installed and operated

O28-9
cont.

[hat do they tell us about feasibility A critical review of global decarbonization scenarios](#) (analysis of 17 decarbonization studies); J. Jenkins et al., Deep decarbonization of the electric power sector: insights from recent literature, Energy Innovation Reform Project, March 2017, <https://www.innovationreform.org/wp-content/uploads/2018/02/EIRP-Deep-Decarb-Lit-Review-Jenkins-Thernstrom-March-2017.pdf> (analysis of 30 decarbonization studies); S. Brick, Renewables and decarbonization: studies of California, Wisconsin and Germany, The Electricity Journal, 2016,

https://www.researchgate.net/publication/299380869_Renewables_and_decarbonization_Studies_of_California_Wisconsin_and_Germany/fulltext/57dc15a408ae4e6f18469f9d/299380869_Renewables_and_decarbonization_Studies_of_California_Wisconsin_and_Germany.pdf?origin=publication_detail (analysis of California, Wisconsin and German studies); and J. Jenkins et al., Getting to zero-carbon emissions in the electric power sector, Joule, 2018, <https://www.sciencedirect.com/science/article/pii/S2542435118305622> (analysis of 40 studies).

²² See, e.g., N. Sepulveda et al., The role of firm low-carbon electricity resources in deep decarbonization of power generation, Joule, November 2018,

<https://www.sciencedirect.com/science/article/pii/S2542435118303866?via%3Dihub> and B. Frew et al., Flexibility mechanisms and pathways to a highly renewable US electricity future, Energy, 2016,

<https://web.stanford.edu/group/efmh/jacobson/Articles/Other/16-Frew-Energy.pdf>.

²³ See, e.g., P. Loftus et al., A critical review of global decarbonization scenarios: what do they tell us about feasibility?, WIREs Climate Change, January/February 2015,

https://www.researchgate.net/publication/267875650_A_critical_review_of_global_decarbonization_scenarios_what_do_they_tell_us_about_feasibility A critical review of global decarbonization scenarios and J. Jenkins et al., Deep decarbonization of the electric power sector insights from recent literature, Energy Innovation Reform Project, March 2017, <https://www.innovationreform.org/wp-content/uploads/2018/02/EIRP-Deep-Decarb-Lit-Review-Jenkins-Thernstrom-March-2017.pdf>.

²⁴ J. Jenkins et al., Getting to zero-carbon emissions in the electric power sector,

Joule, 2018, <https://www.sciencedirect.com/science/article/pii/S2542435118305622> based on

²⁵ CATF 2019.

to capture a community’s surplus intermittent power generation. In California alone, storing surplus generation would require batteries with an instantaneous capacity “larger than the generating capacity of the entire US electric grid.” Even assuming battery storage costs fall dramatically to \$80 per megawatt, California communities would be required to pay about \$2.9 trillion to secure the necessary power storage.²⁶

- To increase the reliability of intermittent renewable energy, significant new large-scale transmission will be required to “knit together diverse wind, sun and hydro resources” including as much as “a twenty-fold increase in US transmission capacity and interties for very high renewable energy scenarios, according to the National Renewable Energy Laboratory.”²⁷
- Due to the need for overbuilding, energy storage increases, and new transmission capacity, decarbonization using intermittent renewables without reliable low-carbon power sources would be unattainably expensive. The cost of electricity generation in California has been estimated to rise from about \$58 per megawatt hour with 60 percent renewable generation to \$389 using 80 percent renewable power, and an astonishing \$1,402 per megawatt hour at 100 percent renewable levels even assuming that the cost of wind, solar and storage falls substantially.²⁸ Other studies have estimated that California communities would pay more than \$1,600 per megawatt hour using 100 percent renewable power.²⁹

O28-9
cont.

A Natural Gas Ban is Economically Infeasible for Customers

According to 2019 survey data published by the U.S. Energy Information Agency, the average household in California currently consumes about 7 megawatt hours of energy at a cost of approximately \$1,000 (\$0.14 per kilowatt hour). Published estimates indicate that California electrical generation costs could rise by 8 to 24 times current levels with 60 percent renewable power, higher utilization of renewables than at present. California households would also use more electrical power over time for transportation and other needs under a 100 percent renewable power scenario. Assuming that the average household electrical demand increases to 10 megawatt hours per year,³⁰ and that prices do not significantly increase until renewable use reaches 80 to 100 percent of total generation, the average California household electric bill

O28-10

²⁶ CATF 2019.

²⁷ CATF 2019.

²⁸ CATF 2019.

²⁹ J. Temple, The \$2.5 trillion reason we can’t rely on batteries to clean up the grid, MIT Technology Review, July 27, 2018, <https://www.technologyreview.com/s/611683/the-25-trillion-reason-we-cant-rely-on-batteries-to-clean-up-the-grid/>.

³⁰ EIA, *How much electricity does an American home use?* (Oct. 2, 2019), <https://www.eia.gov/tools/faqs/faq.php?id=97&t=3> (explaining that in 2018, the average annual electricity consumption for a U.S. residential utility customer was 10,972 kWh).

would increase to about \$8,000 per year at 80 percent renewable use, and to about \$24,000 per year with 100 percent renewable use.

Annual cost increases of this magnitude could be expected to stimulate significant population relocation to lower cost communities. Physical relocation, including the use of larger, high emission vehicles, could have significant impacts on air quality, population and housing. High household energy costs would also have significant health and safety impacts, including higher mortality and illness rates for vulnerable populations due to the inability to heat or cool homes. Direct relocation GHG emissions, and additional emissions that could occur from the movement of large amounts of households to lower cost communities with higher average household emission rates could also generate significant cumulative climate change impacts.

O28-10
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Higher electrical power costs could also result in the relocation, or failure to open and operate businesses in the state and the relocation of these activities to lower cost, higher-emission communities. As discussed in a January 2020 report by the California Legislative Analyst’s Office, California communities already have disproportionately higher energy costs than most of the U.S. compared with marginal generation expenses. Consequently, higher costs associated with 100 percent renewable energy could generate significant GHG impacts.

3. The DEIR Finds that GHG Impact 4.8-1 Will Remain Significant and Unavoidable, but Does So Without Considering Other Feasible and Effective GHG Mitigation

Under CEQA, a lead agency may not adopt a project unless it has eliminated or substantially lessened all significant effects on the environment, or determined that remaining significant effects are acceptable due to overriding considerations.³¹ Here, the County concluded that, with the implementation of all identified GHG mitigation measures, Impact 4.8-1 would remain significant and unavoidable.³² However, the County cannot adopt this finding without implementation all feasible mitigation measures.³³ While it is true that “an EIR need not analyze ‘every imaginable alternative or mitigation measure’ ...,” it “must respond to specific suggestions for mitigating a significant environmental impact unless the suggested mitigation is facially infeasible.”³⁴

O28-11

SoCalGas urges the County to consider other GHG emission-reduction strategies that are scalable and easier to implement, more resilient and more affordable. Specifically, the use of renewable gases such as hydrogen and renewable natural gas (RNG), are low carbon to negative fuels that can dramatically reduce county greenhouse gas emissions and provide optionality and flexibility for the energy system.

³¹ Pub. Res. Code. § 15092(b).

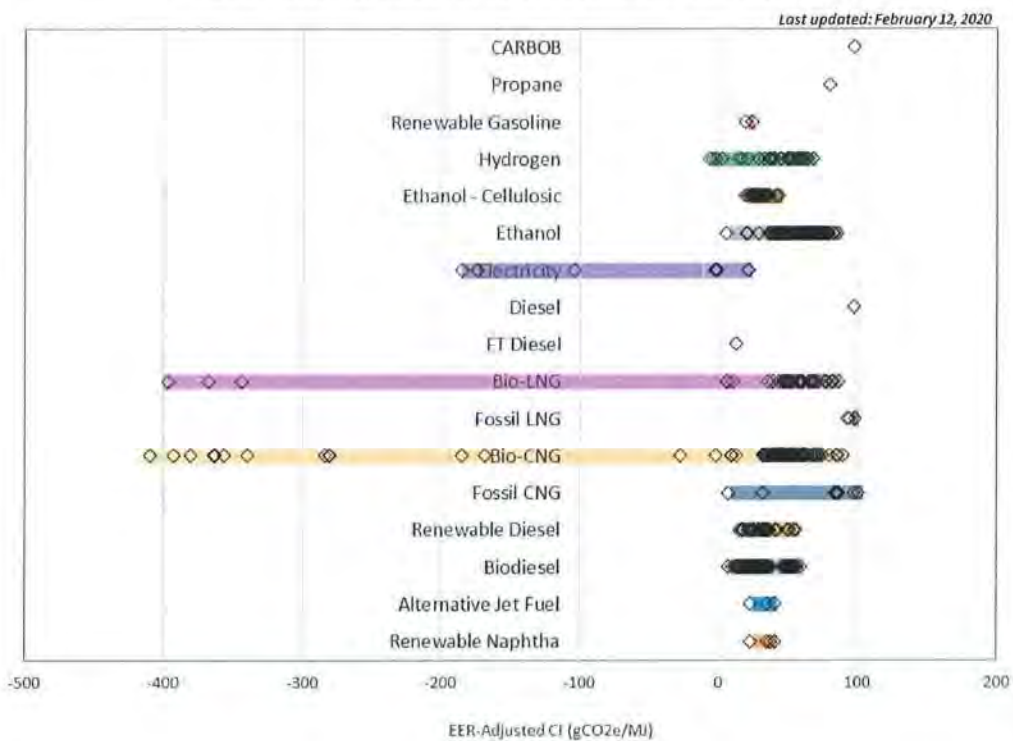
³² DEIR at 4.8-49.

³³ Guidelines §§ 15043(a), 15092(b).

³⁴ *Los Angeles Unified Sch. Dist. v. City of Los Angeles* (1997) 58 Cal. App. 4th 1019, 1029; citing *San Francisco Ecology Center v. City and County of San Francisco* (1975) 48 Cal.App.3d 584, 596 (EIR did not respond to School District’s suggestion that air conditioning and filtering might prove feasible means of reducing air quality impacts under proposed plan).

As stated in our prior comment letter for the General Plan Update (attached), RNG, or biomethane, can be produced from a variety of waste resources (e.g. agricultural waste, forest biomass, waste water, and landfills) and then processed to meet pipeline specifications. Further, green hydrogen can be produced from excess solar and wind power generated when demand is low. The hydrogen can then be stored for later use in hydrogen fueling stations, be used for electric generation in fuel cells, and/or blended into the gas pipeline system to decarbonize gas supply which benefits all sectors. This technology, called Power-to-Gas, has been demonstrated in numerous pilot projects, including UC Irvine.³⁵

Carbon Intensity Values of Current Certified Pathways (2020)



O28-11
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Renewable Gases Can Achieve Numerous Co-Benefits

Because most production of renewable natural gas removes methane from the air and converts it to carbon dioxide when used, RNG production can be significantly carbon negative from a

³⁵ UCI Samueli School of Engineering. UCI and SoCalGas Partner to Design “Advanced Energy Community.” December 2017. Available at: <https://engineering.uci.edu/news/2017/12/uci-and-socialgas-partner-design-advanced-energy-community>

³⁶ California Air Resources Board. LCFS Certified Pathway Carbon Intensities. February 2020. Available at: <https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities>

lifecycle perspective. Renewable gases can also achieve numerous co-benefits by helping the energy system be more flexible and work across sectors. For example, conversion of dead trees or other forest waste to renewable gases can dramatically reduce wildfire risks. The Power to Gas concept that can convert excess renewable electricity to hydrogen and store it for months instead of hours as in the case with batteries enables extension of the renewable energy for long durations to meet demand. Finally, renewable gases can reduce greenhouse gases in hard to decarbonize sectors such as agriculture and industry which form the economic engine of California. As the County is aware, SoCalGas is working towards the goal of replacing 5% of our natural gas supply with RNG by 2022, and 20% by 2030.

The CPUC is evaluating the levels of hydrogen that can be blended into the natural gas system. Just last month, Lawrence Livermore National Labs issued a study of how California can get to carbon neutrality by leveraging the gas pipelines and their rights-of-way to convey hydrogen and carbon dioxide.³⁷ In fact, the most cost-effective carbon negative solution is to convert biomass waste to hydrogen and sequester the carbon via pipelines using the rights-of-ways of the natural gas system. In addition, studies show that replacing roughly 16% of SoCalGas throughput with RNG achieves the same emissions reductions as electrifying the entire building sector by 2030.³⁸

O28-11
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Inclusion of RNG as a mitigation strategy also aligns with policies already included in the Draft General Plan. In particular, policies PFS-5.4, PFS-5.5, PFS-5.6, and COS-8.1 all support reuse of waste resources for energy generation as well as replacement of fossil fuels with renewable energy resources, including bioenergy. Accordingly, the use of renewable gases as a mitigation measure seems a natural complement to these policies, whereas a ban on gas infrastructure seems counterproductive. Therefore, we encourage the County to replace Mitigation Measure GHG-1: Prohibit Natural Gas in New Residential Construction, with an alternative mitigation measure that is performance-based, technology neutral and allows for flexibility in use of renewable fuels to help achieve emissions reductions.

We appreciate the opportunity to submit comments on the DEIR and look forward to working with the County as a valuable energy partner to achieve their environmental goals. If you have any questions, please do not hesitate to reach out via telephone or email.

O28-12

Sincerely,



Deanna Haines
Director Policy, Strategy and Environment

³⁷ Lawrence Livermore National Laboratory. Getting to Neutral. January 2020. Available at: https://www-gs.llnl.gov/content/assets/docs/energy/Getting_to_Neutral.pdf

³⁸ Navigant Consulting, Gas Strategies for a Low-Carbon California Future (April 2018).

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| Letter O28 | SoCalGas Deanna Haines, Director Policy, Strategy and Environment February 27, 2020 |
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O28-1 This comment expresses support for the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

O28-2 The comment states that SoCalGas is concerned about draft EIR Mitigation Measure GHG-1 (New Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development), which is described as being technology restrictive, and limits residents and businesses from hedging against wildfire and energy costs. It also states that a ban would contravene State law and raises concerns under federal law, though no specific laws are cited. These concerns are acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a Final 2040 General Plan.

The comment states that Mitigation Measure GHG-1 is legally flawed under the California Environmental Quality Act (CEQA) because it does not consider, discuss, or analyze the environmental effects of implementing the measure and asserts this measure is infeasible. The comment also states that the draft EIR “neglected to consider” other mitigation measures for the significant and unavoidable greenhouse gas (GHG) emissions impacts identified in the draft EIR. These concerns are addressed in detail in responses to comments O28-3 through O28-8, below.

The California Environmental Quality Act (CEQA) requires that an EIR identify potentially feasible mitigation to address significant environmental impacts. The ultimate determination of mitigation feasibility is made by the lead agency, in this case the County, at the time a decision is rendered about whether to approve the project. Although the comment suggests that additional GHG reduction strategies should be considered in the draft EIR, no specific suggestions are provided; therefore, no further analysis can be provided. Note, however, that the significance conclusions for Impacts 4.8-1 and 4.8-2 do not rely only on Mitigation Measures GHG-1, GHG-2, and GHG-3. Mitigation Measure GHG-4 is also proposed, as well as Mitigation Measures CTM-1, CTM-2, and CTM-3. Mitigation Measure GHG-4 would require that the Climate Emergency Council develop recommended subprograms to implement policies that do not have associated implementation programs in the 2040 General Plan.

O28-3 The comment states that the draft EIR “fails to discuss the potential environmental effects from implementing a Reach Code that bans or restricts natural gas,” as outlined in Mitigation Measure GHG-1. In addition, the comment asserts that implementation of Mitigation Measure GHG-1 could result in significant environmental impacts, which are discussed below and in response to

comments O28-4 through O28-8. Here the comment claims that there is substantial evidence that adopting and implementing Mitigation Measure GHG-1 could lead to significant environmental effects related to utilities and service systems.

Mitigation Measure GHG-1 is proposed in Section 4.8, “Greenhouse Gas Emissions,” to address GHG emissions associated with new residential and specified types of commercial construction. It would result in a new program in the Hazards and Safety Element of the 2040 General Plan that prohibits the installation of new natural gas infrastructure in new residential construction through amendments to the Ventura County Building Code. Mitigation Measure GHG-1 also would apply to new commercial construction such as offices, retail buildings, and hotels where the use of natural gas is not critical to business operations and appliances can be feasibly substituted with electricity powered equivalents.

For clarification, the language of Mitigation Measure GHG-1 beginning on page 4.8-45 of the draft EIR is revised as follows:

Mitigation Measure GHG-1: New Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential and New Commercial Development

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential and New Commercial Development

To support the proposed reach codes under COS-S, the 2040 General Plan shall include a new program in the Hazards and Safety element that prohibits the installation of new natural gas infrastructure in new residential development construction through amendments to the Ventura County Building Code. This program shall also be extended to include new-commercial development building types such as including but not limited to offices, retail buildings, and hotels, where the use of natural gas is not critical to business operations and contain appliances that can be feasibility substituted with electricity powered equivalents. The County shall allow may exempt certain new commercial development to be exempt from these requirements where the County can make upon making findings based on substantial evidence that supports why the use of natural gas is critical to business operations, and that it is not feasible¹ to replace critical appliances or equipment with electricity powered equivalents. This program shall be completed no later than 2023.

1. “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account

economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

The comment states that a developer’s choice to construct all electric buildings could cause an increase in electricity demand that may not be supported by local generation or transmission and distribution resources. The comment points to the possibility of a statewide natural gas ban necessitating the construction of new capacity for power systems, expanding transmission lines, and increasing hydropower by 100 times existing capacity if natural gas is banned statewide. The comment speculates about the indirect effects of fabricating and constructing new infrastructure to support the energy demands of new construction due to a policy that prohibits the installation of natural gas infrastructure to serve development under the 2040 General Plan. Contrary to the commenter’s assertion, these are not reasonably foreseeable outcomes of the mitigation measure and the County is not obligated under CEQA to speculate about these potential effects.

Regarding new residential construction, Ventura County’s forecast for residential development is anticipated growth by 1,281 units between 2015 and 2040, which would comprise approximately 3 percent of the County’s overall housing stock in 2040. With respect to commercial development, the draft EIR estimates that by 2040 implementation of the 2040 General Plan would result in 284,821 square feet of mixed retail development and 535,714 square feet of general office building development. But the energy needs of residential and commercial buildings will be minimal, even if designed as all-electric buildings. For example, under the 2019 California Energy Code, effective January 1, 2020, new residential buildings are required to install solar panels sized to offset electric loads. The performance pathway for code compliance also allows for the specification of on-site battery storage systems that capture the renewable energy generated during non-peak hours and makes this electricity available during peak hours, minimizing grid demand. These battery storage technologies are identified as features encouraged by the County for new development under Policy COS-8.8. Zero Net Energy buildings supported under Policy COS-8.6 would require very little grid-sourced electricity, with the California Energy Commission’s definition of the Zero Net Energy Code Building being “one where the net amount of energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building (CEC 2013).

Regarding new commercial construction, a transition to all-electric office, retail and hotel buildings would switch some of the energy load of these facilities from natural gas to electricity, but that switch would not require additional generation or transmission and distribution resources beyond what would already be provided to these buildings under a mixed-fuel design. An incremental increase in electricity consumption as opposed to natural gas would help electric utilities

with the disposition of excess electricity generated during the day. Overgeneration of electricity between 9:00 a.m. and 5:00 p.m. is an existing and forecasted issue for California's electrical grid, resulting from the increased penetration of distributed and utility-scale photovoltaic renewable energy systems (CAISO 2016).

Under current conditions, the ramping up of electricity generation to account for the difference between low and peak energy loads throughout the day is achieved by operating fossil-fuel-based peaking power plants, which increases the carbon intensity of the supplied electricity. While energy storage systems are being incentivized at the building scale and mandated at the utility scale to reduce these effects, shifting building energy loads to take advantage of abundant solar generated electricity during the middle of the day is another important strategy for smoothing this energy demand/supply curve (Piette 2017).

The retail and office commercial building types covered under Mitigation Measure GHG-1 are occupied by business with typical 9:00 a.m. to 5:00 p.m. business hours, where increasing the electrical load during these times would take advantage of this excess grid capacity. An analysis of simulated energy load profiles for small and medium size retail and office buildings in California by Lawrence Berkeley National Laboratories confirms that energy use is concentrated between these hours (Hong et al 2017).

Hotels, which are also covered under Mitigation Measure GHG-1, are distinct in that they have high energy demands throughout the day, because they function as both a business activity during the day and temporary lodging for travelers in the evening. Load profiles for hotels fluctuate by season, due to variations in occupancy, but there are no extreme peaks or troughs in electricity demand observed throughout the year. These relatively flat load profiles indicate that adding additional electricity consumption through an all-electric design would be unlikely to result in major spikes in electricity demand that are incompatible with the excess renewables-based electricity available through California's grid. (Placet 2010).

Moreover, as explained below, this comment does not raise any issues requiring analysis in an EIR that have not already been addressed in the draft EIR. Notably, Mitigation Measure GHG-1 would apply to new construction only. To the extent this mitigation measure prohibiting natural gas in new residential construction would result in the need for new electric infrastructure, the physical consequences of constructing electric transmission facilities to new development is considered throughout the draft EIR as a component of the "future development" described in the "Approach to the Environmental Analysis" section (page 4-2 of the draft EIR). Also refer to Section 4.17, "Utilities," for analysis of the potential significant environmental impacts associated with the relocation or construction of new or expanded electric power infrastructure to serve increased demand under implementation of the 2040 General Plan (Impact 4.17-2 starting at page 4.17-11). The draft EIR already includes an adequate discussion of physical impacts associated with the construction or new or expanded electric power infrastructure.

Because the location and characteristics of future development subject to the 2040 General Plan are not known, and electricity supply, demand, and capacity are not static and would evolve over the life of the 2040 General Plan, analysis of the grid and distribution system capacity to meet demand generated by Mitigation Measure GHG-1 cannot be evaluated at this time. However, as discussed above, the increased demand is expected to be relatively small, and likely within the planning margin of the applicable utilities. Furthermore, the physical consequences of constructing electric transmission facilities to new development is considered throughout the draft EIR as a component of the “future development.”

O28-4 The comment states that all-electric homes may produce more GHG emissions than mixed fuel homes. The National Institute of Standards and Technology study, based in Maryland, is incomparable to conditions in the county because the study is located in a different climate zone with increased heating needs compared to California and has different carbon intensities associated with electricity consumption. Furthermore, a 2016 study by Hong and Howarth cited within the National Institute of Standards and Technology report found that “natural gas had a larger negative impact on direct GHG emissions than high efficiency electric heat pumps when used for domestic water heating across both coal and natural gas produced electricity.” The County’s participation in a community choice energy program offering electricity sourced from 100 percent renewable sources also makes the local setting incomparable to the California Energy Commission study cited in the comment. This study is based on a comparison of natural gas and electricity emissions that assumes electricity will be sourced from significantly less renewable and zero carbon sources that would occur under existing State law (e.g., Senate Bill 100). As shown in Appendix B to the 2040 General Plan, the GHG forecast takes into account State requirements to achieve 60 percent renewable electricity by 2030 and 100 percent of electricity from renewable or zero carbon sources by 2045. Because of the County’s participation in the community choice energy program offering 100 percent renewable electricity sources, and due to the substantial GHG reductions from Senate Bill 100 during the horizon of the 2040 General Plan, the draft EIR analysis accurately assumes that implementation of Mitigation Measure GHG-1 would result in GHG reductions. Increases in GHG emissions are not a reasonably foreseeable result of the implementation of Mitigation Measure GHG-1. No further response to this comment is required.

O28-5 The comment states the draft EIR energy analysis failed to analyze the potential energy impacts of Mitigation Measure GHG-1 from the perspective of wasteful or inefficient energy consumption per Appendix G of the State CEQA Guidelines. Concerns mentioned include “a failure to use already captured natural gas” or the “expenditure of additional energy to transport or divert natural gas elsewhere.” It is not clear from the comment which sources of already captured natural gas are being referenced or why natural gas would continue to be captured if there were decreasing demand or need for it. For one, by definition the “failure” to use natural gas cannot be considered wasteful or inefficient consumption of natural gas; there is no natural gas consumption if there is a “failure” to use it. In addition, the comment does not provide any evidence for why prohibiting natural

gas in new residential and commercial discretionary development in the county would result in the expenditure of energy to transport or divert natural gas elsewhere, or even if it did, why such energy expenditure would be wasteful, inefficient, and unnecessary to such an extent that a significant impact would result. Providing any further analysis of this issue would be speculative and CEQA does not require that an EIR engage in analysis that is too speculative (State CEQA Guidelines Section 15145). No further response is required.

In addition, while “wasteful” and “inefficient” energy use comprise two parts of the Appendix G Energy threshold, there is a third component not mentioned in the comment and that is “unnecessary.” It is arguably unnecessary to consume natural gas simply because it is available or might be diverted to another market. For example, California’s building energy efficiency standards and retrofit programs have served for decades to reduce electricity and natural gas consumption in buildings, despite ample in-state capacity to produce these resources.

The comment also indicates that renewable natural gas (RNG) or biomethane can be produced from biomass wastes and injected into existing pipelines. This potential is acknowledged in the 2040 General Plan through inclusion of Implementation Program AG-M (Biogas Control Systems) and Policy COS-8.1 (Reduce Reliance on Fossil Fuels) which call for the County to promote the development and use of renewable energy resources including bioenergy. The potential to inject biomethane into existing pipelines is supported by the County and viewed as an opportunity to reduce the carbon intensity of existing mixed-fuel building stock with natural gas connections, particularly in commercial buildings where retrofitting to all-electric may be challenging. However, the comment does not provide any details about RNG becoming a meaningful energy source available in the plan area by 2040, the horizon year for the 2040 General Plan.

O28-6

The comment states that Mitigation Measure GHG-1 will contribute to an “overloaded” electrical grid and will exacerbate the economic and safety effects from likely future Public Service Power Shutoffs, initiated by electric utilities for wildfire safety. This issue is not exclusive to all-electric homes and would affect mixed-fuel homes too. Appliances using natural gas such as space and water heating also require electricity to function. The main advantage mixed-fuel homes have is the ability in some cases to run a gas-powered stove during an outage. Additionally, homeowners and businesses burdened with long-term outages may resort to the installation of backup electricity generators supplied by natural gas lines. Installation of these features may occur without appropriate permits, raising concerns about air quality and noise, if installed in residential neighborhoods. To prevent power interruption, economic loss, and public safety “issues” described in the comment, all-electric facilities can feature battery storage systems as encouraged under Policy COS-8.8. These systems can be configured to provide emergency electricity backup and do not generate on-site emissions. Note that the economic and social effects of Public Service Power Shutoffs are not physical environmental impacts of the 2040 General Plan that require analysis in the EIR. Refer to response to comment O28-3, for further discussion of the

potential for Mitigation Measure GHG-1 to affect operation of existing electricity infrastructure.

The comment recommends microgrids as a technology that can help achieve decarbonization and resilience goals. The County agrees, which is why microgrids are identified under Policy EV-4.4: Renewable Energy Facilities. This policy states that the County shall identify appropriate locations to allow for development of renewable energy generation and storage facilities and encourage the development of innovative approaches to renewable energy deployment, including solar power, wind power, wave energy, distributed power systems and micro-grids, and other appropriate renewable sources and storage and distribution systems. The County acknowledges that microgrids and energy storage projects can help achieve decarbonization and resiliency goals and considers these technologies complementary to Mitigation Measure GHG-1.

O28-7 The comment states that the County should provide more information on the increase of electricity consumption associated with Mitigation Measure GHG-1. It states that no evidence exists to support the notion that existing or future electricity load could meet energy demands if natural gas infrastructure is banned for all future residential construction, and that new renewable energy resources will be needed to meet the state's electrification policies. Refer to response to comment O28-3 for a discussion of the potential for implementation of Mitigation Measure GHG-1 to increase electric demand to such an extent that new renewable generating resources will be required.

O28-8 The comment describes the term "environmental justice," expresses dissatisfaction with the discussion of Mitigation Measure GHG-1, which would prohibit use of natural gas in new residential construction, and suggests that the social and economic implications of implementing the measure should be evaluated in the draft EIR. Specifically, the comment asserts that the implementation of this mitigation measure would require increased demand for electricity to such an extent that the construction of new electric infrastructure would be required, and that the physical construction of such infrastructure would increase ratepayer costs, which it asserts is an economic impact that must be considered under CEQA.

However, as noted in the commenter's citation of the State CEQA Guidelines, EIRs are not required to consider economic or social effects, including environmental justice effects, unless there is a clear link between those economic or social effects and physical environmental changes. Specifically, "An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes" (CEQA Guidelines, § 15131(a)).

Here, the commenter does not establish a link between economic or social effects of Mitigation Measure GHG-1 and physical environmental changes. Rather, the comment does the opposite. It states that this measure would have physical

environmental impacts associated with construction of new electric infrastructure, that these physical impacts have economic impacts (increased ratepayer costs), and that these economic impacts should be evaluated in the draft EIR. The comment does not connect these economic impacts to physical environmental changes, and therefore these economic impacts are not required to be analyzed in the EIR. As explained below, this comment does not raise any issues requiring analysis in an EIR that have not already been addressed in the draft EIR.

Notably, Mitigation Measure GHG-1 would apply to new construction only. To the extent this mitigation measure prohibiting natural gas in new residential construction would result in the need for new electric infrastructure, the physical consequences of constructing electric transmission facilities to new development is considered throughout the draft EIR as a component of the “future development” described in the “Approach to the Environmental Analysis” section (page 4-2 of the draft EIR). Also refer to Section 4.17, “Utilities,” for analysis of the potential significant environmental impacts associated with the relocation or construction of new or expanded electric power infrastructure to serve increased demand under implementation of the 2040 General Plan (Impact 4.17-2 starting at page 4.17-11). The draft EIR already includes an adequate discussion of physical impacts associated with the construction of new or expanded electric power infrastructure.

The comment is correct in implying that the County’s decision-making bodies can consider economic and other factors when deciding whether to adopt the proposed mitigation as a component of the findings required by Section 15091 of the State CEQA Guidelines. Section 15131(c) of the State CEQA Guidelines provides that “Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR. If information on these factors is not contained in the EIR, the information must be added to the record in some other manner to allow the agency to consider the factors in reaching a decision on the project.” The draft EIR correctly excludes analysis of the economic impacts raised in this comment and no further response is required.

O28-9

The comment asserts that Mitigation Measure GHG-1 is infeasible under CEQA. Mitigation Measure GHG-1 seeks to reduce GHG emissions by eliminating new natural gas infrastructure associated with new residential and commercial development. The limit on natural gas infrastructure would not apply to existing pipelines or end uses in existing buildings throughout the county. The comment’s assertion that eliminating natural gas is environmentally, economically, and technologically infeasible is incorrect for the reasons provided below. The comment provides discussion of using “intermittent” sources of renewable power to achieve decarbonization goals but does not explain how this information relates to the feasibility of Mitigation Measure GHG-1.

The California Energy Codes and Standards, a statewide utility program, released several cost-effectiveness studies for residential and nonresidential building types constructed under the current (2019) California building code (Title

24, Parts 6 and 11). The objective of the residential study “is to identify cost-effective, non-preempted performance targets for both single family and low-rise multifamily prototypes, under both mixed fuel and all-electric cases, to support the design of local ordinances requiring new low-rise residential buildings to exceed the minimum state requirements” (California Energy Codes and Standards 2019a). The nonresidential study “documents cost-effective combinations of measures that exceed the minimum state requirements for design in newly-constructed nonresidential buildings” (California Energy Codes and Standards 2019b:1). The studies examine all climate zones in the state. Ventura County spans three climate zones (6, 8, and 9). The cost effectiveness is determined for both utility bill impacts (On-Bill), and time dependent valuation (TDV). The On-Bill metric “values energy based upon estimated site energy usage and customer on-bill savings using electricity and natural gas utility rate schedules over a 30-year duration accounting for discount rate and energy cost inflation.” TDV “is the ‘societal value or cost’ of energy use including the cost of providing energy during peak periods of demand, as well as grid transmission and distribution impacts” (California Energy Codes and Standards 2019b:1).

The results of the residential study are summarized here (California Energy Codes and Standards 2019a:33-34):

Based on typical cost assumptions arrived at for this analysis, the lifetime equipment costs for the single family code compliant all-electric option are approximately \$5,350 less than the mixed fuel code compliant option. Cost savings are entirely due to the elimination of gas infrastructure, which was assumed to be a savings of \$5,750...The all-electric code compliant option is cost-effective based on the On-Bill approach for single family homes in Climate Zones 6 through 9, 10 (SCE/SoCalGas territory only), and 15. (p. 33). If the same costs used for the On-Bill approach are also used for the TDV approach (incorporating the Utility Gas Main Extensions rules 50% refund and appliance allowance deduction), the all-electric code compliant option is cost-effective in Climate Zones 6 through 10.

Lifetime costs for the multifamily code compliant all-electric option are approximately \$2,300 less than the mixed fuel code compliant option, entirely due to the elimination of gas infrastructure...The all-electric code compliant option is cost-effective based on the On-Bill approach for multifamily in Climate Zones 6 through 9, 10 and 14 (SCE/SoCalGas territory only), and 15.

With respect to new commercial buildings, the nonresidential cost-effectiveness study found that all-electric medium offices, medium retail, and small hotels were cost effective for Climate Zones 6, 8, and 9. The approximately southern half of Ventura County is located in Climate Zones 6 and 9 (CEC 1995). The study also stated that: “Avoiding the installation of natural gas infrastructure results in significant cost savings and is a primary factor toward cost-effective outcomes in all-electric designs, even with necessary increases in electrical capacity” (California Energy Codes and Standards 2019b:58).

These studies demonstrate that all-electric residential and commercial buildings can be found to be both technologically and economically feasible for the 2019 California Building Code (Title 24, Parts 6 and 11). Additionally, the County would not be the first or only jurisdiction to adopt such requirements. The Cities of Menlo Park, Berkeley, and San Jose have adopted either Reach Codes for new construction that require electrification in all feasible instances and/or bans on new natural gas infrastructure serving new residential and nonresidential buildings. No revision to the draft EIR is required in response to this comment.

- O28-10 The comment asserts that Mitigation Measure GHG-1 will result in significant environmental impacts, including higher GHG emissions because it will result in electricity rate increases that will prompt residents and businesses to relocate to places that have higher emissions. This conjecture of indirect environmental effects is not supported by substantial evidence. Any evaluation of these impacts would be considered speculative under CEQA and is therefore not required in an EIR.
- Refer to responses to comments O15-21 and O28-9, which describe a recent statewide cost-effectiveness study for reach codes that includes results showing the feasibility of all-electric building construction in Climate Zones covering Ventura County.
- O28-11 This comment requests that the County consider hydrogen and RNG as mitigation measures for the significant GHG emissions impacts identified in the draft EIR. Refer to the response to comment O28-5 for discussion of how the 2040 General Plan supports use of renewable gases like biomethane or RNG. Note, however, that the comment does not suggest or identify any feasible measures related to the use of RNG or hydrogen that the County could implement to reduce future GHG emissions under the 2040 General Plan. Also refer to Master Response MR-1 explaining that the EIR properly includes feasible mitigation measures for the significant and unavoidable GHG emissions impacts identified in Impact 4.8-1 and Impact 4.8-2.
- O28-12 The County has noted the commenter's contact information appropriately for future reference.



Letter
O29

26 February 2020

To: Susan Curtis
800 S. Victoria
Ventura, CA 93003
Susan.Curtis@ventura.org

Re: Public Comments on Ventura County General Plan Update DEIR
From: Ventura Citizens for Hillside Preservation (VCHP)

VCHP Public Comments on General Plan Update DEIR

The General Plan Update section on “Climate Change and Greenhouse Gas Emissions Reduction” begins:

“Climate change is a global problem caused by the cumulative warming effects of greenhouse gas (GHG) emissions. Governments at all levels, non-governmental agencies, and private citizens and businesses are now acting to mitigate GHG emissions as quickly as possible to reduce or avoid the most catastrophic effects of climate change.”

The above statement is good. It clearly acknowledges that these GHG emissions are harming the Earth's environment. Because this General Plan Update will guide our County's development and actions for the next 20 *critical climate change* years, it is paramount that we set strong policies in this Plan and in our Climate Action Plan (CAP). We need enforceable policies that can quantify, measure, monitor and reduce greenhouse gas emissions, both existing and projected, over a specified time period in order to meet the state mandated greenhouse Gas (GHG) emission reduction goals.

The Los Angeles Sustainability Plan has defined objectives aimed at meeting the goals of the Paris Climate Agreement that Ventura County should emulate, such as:

“By eliminating fossil fuel production in the county, including drilling, production and refining, the county will protect its residents from harmful local pollution that inequitably burdens low-income communities and communities of color.”

and

“Collaborate with DOGGR and unincorporated communities and affected cities to develop a sunset strategy for all oil and gas operations that prioritizes disadvantaged communities.”

We know that climate change is caused by fossil fuel production and consumption, yet our Climate Action Plan (CAP) only addresses consumption by encouraging electric fuel vehicles and clean power for homes and businesses, etc. Unfortunately, the CAP does not have a concrete plan to reduce and/or phase out production-related fossil fuel pollution. Ventura County is the third largest oil and gas producing county in California. It is imperative that we must do *our* part in the fight against worldwide climate change. We must set rigorous policies in this General Plan Update to reduce oil and gas production pollution and set goals to phase out fossil fuel production. We must create strong and

O29-1

measurable CAP policies that have genuine force and effectiveness that can address the adverse environmental impacts of future projects. If our policies have no teeth, then future GHG emitting projects will slide by based on “compliance” with an inadequate CAP. Consider the following policies from the California Environmental Quality Act (CEQA) and employ them to improve and strengthen our CAP policies.

CEQA 15183.5(b)

Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below.

Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

- (1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:
 - (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
 - (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
 - (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
 - (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
 - (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
 - (F) Be adopted in a public process following environmental review.

- (2) Use with Later Activities. A plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project

O29-1
cont.

Specific Changes for the Draft Environmental Impact Report:

Buffer Requirements – The proposed buffers for locating oil and gas facilities a safe distance from schools and homes are inadequate. Studies show adverse public health impacts occur if oil and gas facilities are located within a half a mile of homes and schools.

Action Needed: The buffer requirements should be increased from the currently proposed 1,500 feet to at least 2,500 feet.

Trucking vs. Pipeline – Currently oil and produced water from local oil wells are mainly transported by truck. Trucking creates safety hazards on county roads, exposes residents to toxic diesel/particulate pollution, and causes substantial amounts of greenhouse gas emissions. Draft General Plan Policy

O29-2

O29-3

COS-7.7 attempts to address this problem by requiring newly permitted oil wells to use pipelines instead of trucks to transport oil and produced water. Unfortunately, the DEIR undermines Policy COS-7.7 by concluding that the costs of constructing pipeline connections may make this policy infeasible because it may lead to a loss of petroleum resources. Trucking would be allowed if pipelines are deemed infeasible. This would create a costs-are-too-high loophole big enough for oil companies to drive hundreds of thousands diesel trucks through. The reality here is the climate change cost is too high for the planet and its future generations to not enforce the use of pipelines instead of trucking.

O29-3
cont.

Action Needed: Maintain Policy COS-7.7 as recommended by the Board of Supervisors: All newly permitted discretionary oil wells are *required* to convey oil and produced water via pipelines instead of trucking.

Flaring – Draft General Plan Policy COS-7.8 requires gases from all new discretionary oil and gas wells to be collected and used, or removed for sale or proper disposal, instead of being flared or vented to the atmosphere. The policy would allow flaring only in cases of emergency or for testing purposes. This is important because venting and flaring release both toxic gases and powerful climate pollutants like methane into the atmosphere. The DEIR, however, undermines this policy by concluding the added costs of treating the gas on site or constructing pipeline connections would make this requirement infeasible because it may lead to a loss of petroleum resources. Flaring, then, would be allowed if conveyance by pipeline is deemed infeasible. This creates another loophole that allows oil producers to simply claim that the cost is too high. Without more stringent policies, flaring in Ventura County will continue. We are either part of the solution or we are part of the problem – let's be part of the solution.

O29-4

Action Needed: Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are *required* to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

Climate Action Plan – The draft General Plan and the DEIR conclude that the county's greenhouse gas emissions would have significant impacts. However, the Climate Action Plan proposed as part of the General Plan is inadequate and will not reduce emissions in a meaningful way. Most of the proposed Climate Action Plan policies are vague and aspirational, using words like "encourage" and "support" rather than "require" measurable reductions in climate change causing pollution.

Climate Action Plan policies must result in measurable, enforceable reductions sufficient to meet California's climate goals. This is important because the General Plan and related Climate Action Plan can be used to streamline approval of future development projects. If we do not create loophole-proof General Plan and CAP policies, then the adverse environmental consequences of future projects — including discretionary oil and gas development — may not be properly assessed because applicants can simply claim that their projects are consistent with the Climate Action Plan. In other words, if the Climate Action Plan consists mostly of vague, voluntary, or otherwise unenforceable policies, then future projects could easily claim CAP compliance to evade proper environmental review.

O29-5

Action Needed: Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

Greenhouse Gas "Super-Emitters" – A recent NASA study documents that several Ventura County facilities, including oil and gas operations, are "super-emitters" of powerful climate pollutants. Stationary source emissions, including those from oil and gas operations, make up approximately 26 percent of all emissions in California. The General Plan must include strong policies to detect and curb emissions from these "super-emitters."

O29-6

Action Needed: The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

Further, the General Plan Update DEIR must include a strong defense of the five-pound air emissions limit for the Ojai Valley. It is widely known that air pollutants do not respect arbitrary human boundary lines. It is locally known that, because of the predominant onshore air flow patterns, air pollutants from Ventura, Casitas Springs, and Oakview often end up trapped by the surrounding mountains in the Ojai Valley air basin. This creates unhealthful conditions in this air basin for humans and other living things.

O29-7

Action Needed: All projects subject to CEQA review must include an evaluation of the totality of air emissions in order to understand and mitigate the impacts to local air quality.

A few concluding comments on the “Climate Change and Greenhouse Gas Emissions Reduction” section of the General Plan Update. We all understand that climate change is already causing severe adverse impacts both locally and around the world. We all understand that this General Plan Update will guide our county for the next 20 years. Given this, it is absolutely critical that our Climate Action Plan can quantify, measure, and definitively determine whether a project’s incremental contribution to a cumulative effect is or is not cumulatively significant. The CAP and General Plan Policies must be strong and enforceable and the County must establish a mechanism to monitor the plan’s progress toward achieving reduced emission levels as well as require amendment if the plan is not achieving specified levels.

O29-8

VCHP would additionally like to offer these few additional public comments:

Conservation and Open Space Element -- under COS-1.10 the Discretionary Development Proposed Near Wetlands it states:

“The County shall require discretionary development that is proposed to be located within 300 feet of a wetland to be evaluated by a County-approved biologist for potential impacts on the wetland and its associated habitats. Discretionary development that would have a significant impact on the wetland habitat shall be prohibited unless mitigation measures are adopted that would reduce the impact to a less than significant level; or for lands designated “Urban” or “Existing Community”, a statement of overriding considerations is adopted by the decision-making body. (RDR) [Source: Existing GPP Policy 1.5.2.3 modified]”

Below this COS-1.10 is this boxed note:

“The County may consider revising the above policy to allow the decision-making body to adopt a CEQA Statement of Overriding Consideration for significant environmental impacts for all areas of the unincorporated County, thereby providing the opportunity to balance a project’s impacts against its potential economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits.”

O29-9

Policy COS-1.10 should not be revised to soften its intent. Allowing “the decision-making body to adopt a CEQA Statement of Overriding Consideration for significant environmental impacts” could send the wrong message about the County’s commitment to environmental resource protection.

6.10 Implementation Policies – In section B “*Update Initial Study Assessment Guidelines*” it states:

“The County shall update the Initial Study Assessment Guidelines to identify a range of mitigation measures for protected biological resources. This will include updating Section 4, Biological Resources, to include the following California Environmental Quality Act (CEQA) policy language regarding compensatory mitigation: “When there is no other feasible alternative to avoiding an impact to a wetland habitat, the County shall require the discretionary development to provide restoration and/or replacement habitat as compensatory mitigation such that no overall net loss of wetland habitat results from the development. The restoration and/or

replacement habitat shall be "in kind" (i.e. same type and acreage) and provide wetland habitat of comparable biological value. On-site restoration and/or replacement shall be preferred wherever possible. A habitat restoration and/or replacement plan to describe and implement such compensatory mitigation shall be developed in consultation with all agencies that have jurisdiction over the resource." [Source: Existing GPP Policy 1.5.2.4, modified]"

VCHP strongly supports this kind of update to the Initial Study Assessment Guidelines.

In section F "*Evaluate Increase to Standard Setback from Wetland*" it states:

"The County shall evaluate whether a standards 200-foot setback from wetlands should apply to development in order to improve water quality, reduce the impacts of flooding and provide adequate protection for sensitive biological resources [Source: New Program]"

VCHP strongly supports increasing the standards setback from wetlands for development to improve water quality, reduce impacts of flooding and provide adequate protection for sensitive biological resources.

Thank you for your time and attention to these public comments. Additionally, thank you for all of your and County Staff's hard work in getting the General Plan Update to this point.

Sincerely,

Ventura Citizens for Hillside Preservation

Diane Underhill, President
Kathy Bremer, Vice Presidents
Will Thompson, Treasurer
Leslie Purcell, Secretary
Carol Lindberg, Board Member
Norene Charnofsky, Board Member
Jim Hines, Board Member

O29-9
cont.

VCHP is a 501(c)(4) nonprofit organization with the following mission statement: "To preserve Ventura's hillsides, open space, river watersheds, and quality of life by actively participating in and influencing the public planning process as well as supporting like-minded public officials, political candidates and ballot measures."

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| Letter O29 | Ventura Citizens for Hillside Preservation February 27, 2020 |
|-----------------------|------------------------------------------------------------------------|

- O29-1 The comment asserts the importance of a Climate Action Plan (CAP), makes recommendations from the Los Angeles Sustainability Plan, and asserts that the draft 2040 General Plan does not have a “concrete plan to reduce and/or phase out production-related fossil fuel pollution.” The comment goes on to cite and recommend consideration of policies from the California Environmental Quality Act (CEQA) Guidelines. Refer to Master Response MR-1 for a discussion of the goals and targets established in the 2040 General Plan relative to State goals. Refer to Master Response MR-4 for a discussion of the commenter’s suggestion to phase out existing oil and gas production through the 2040 General Plan.
- Note that the draft EIR includes mitigation that would remove Program COS-EE, which is the program proposed in the 2040 General Plan to establish an avenue for tiering and streamlining the GHG analysis for projects subject to environmental review pursuant to Section 15183.5 of the State CEQA Guidelines. Future projects would not “slide by” based on compliance with the 2040 General Plan. Refer to response to comment O8-16 for further discussion.
- O29-2 Refer to Master Response MR-4, Section MR-4.H, “Buffers (Setback),” and Section MR-4.E, “Applicability of Reference Studies for Oil and Gas Operations,” regarding the findings and conclusions related to setbacks and the adequacy of the reports relied upon for the findings and conclusions in the draft EIR.
- O29-3 Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements,” regarding the findings and conclusions related to pipelines.
- O29-4 Refer to Master Response MR-4, Section MR-4.F, “Flaring,” regarding the findings and conclusions related to flaring.
- O29-5 The comment suggests that the CAP should be revised to include measurable, enforceable reductions in GHG emissions. Refer to Master Response MR-1 for a discussion of how the GHG emission reductions for the policies and programs in the 2040 General Plan have been modeled. The draft EIR’s analysis of GHG emissions correctly identifies and considers 2040 General Plan policies and programs and includes feasible and enforceable mitigation measures.
- O29-6 The comment notes recent evidence that oil and gas production facilities can be “super emitters” of GHG emissions and suggests that the County “adopt the strongest possible measures” to curb the release of GHG emissions. The comment is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer also to Master Response MR-1 for an explanation of why “super emitters” are not evaluated in the GHG inventory.
- O29-7 Refer to the response to comment O20-15.

O29-8 The commenter’s opinions about the content of Section 6.9, “Climate Change and Greenhouse Gas Emissions Reduction,” in the 2040 General Plan are noted. The comment is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

Note that there is a mechanism to monitor and manage the performance of the climate action planning components of the 2040 General Plan. Implementation Program AA in the Conservation and Open Space Element of the 2040 General Plan would require updates to the GHG emissions inventory to track GHG reduction performance at 5-year intervals. With implementation of Mitigation Measure GHG-3, the CEQA streamlining provision proposed as Program COS-EE in the 2040 General Plan be removed, and the potential GHG emissions impacts of future, discretionary projects would be reviewed in accordance with the most recent adopted version of the ISAGs at the time of project-level environmental review. Refer to Master Response MR-1 for additional discussion of the GHG forecasts and targets associated with the 2040 General Plan.

O29-9 The comment addresses policies and programs of the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

Dear Ms. Curtis:

Regarding the proposed VC2040 General Plan, we request the County to include how the agency would establish a preponderance of evidence that the resource is not archaeologically or culturally significant. How would this be done and could it be appealed?

The number of archaeological sites in Ventura County is decreasing at a rapid rate and the definition of archaeological significance should be revised, "that all Native American archaeological sites, should be considered significant since the prehistoric identity of the Indigenous groups is tied solely to archaeological evidence." Loss of any sites would irrevocably result in loss of significant portions of their culture.

Thank you for your consideration.

Respectfully,

Julie Swift
President-Elect
Ventura County Archaeological Society
VCAS.arch@gmail.com or julie_swift@ymail.com <https://www.venturacountyarchaeologicalsociety.com>

Letter
O30

O30-1

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|-----------------------|---------------------------------------------------------------------------------------------------|
| Letter O30 | Ventura County Archaeological Society Julie Swift, President-Elect February 27, 2020 |
|-----------------------|---------------------------------------------------------------------------------------------------|

O30-1 The comment inquires as to how the County would “establish a preponderance of evidence” that an archaeological or cultural resource is significant, asserts that archaeological sites in Ventura County are “decreasing at a rapid rate” and suggests a revised definition of “archaeological significance.”

The California Environmental Quality Act requires public agencies to consider the effects of their actions on both “historical resources” and “unique archaeological resources.” Public Resources Codes Section 21083.2(g) defines “unique archaeological resource” as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: (1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information, (2) has a special and particular quality such as being the oldest of its type or the best available example of its type, an/or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person. In regard to the commenter’s inquiry as to how the County would establish a “preponderance of evidence” that archaeological cultural material is significant, a qualified archaeologist meeting Secretary of the Interior’s Professional Qualification Standards in archaeology is the only individual qualified to determine if an artifact meets the definition of “unique archaeological resource.” As described on page 4.5-15 of the draft EIR, implementation of Mitigation Measure CUL-1a, would require that all discretionary development projects be assessed for potential tribal, cultural, historical, paleontological, and archaeological resources by a qualified professional.

Impact 4.5-1 identifies Mitigation Measures CUL-1a, CUL-1b, and CUL-1c on pages 4.5-15 through 4.15-16 of the draft EIR. These mitigation measures would require that discretionary development projects protect existing resources, avoid potential impacts to the maximum extent feasible, and implement feasible mitigation measures to reduce impacts to less than significant. Further, Mitigation Measure CUL-2, identified on page 4.5-19 of the draft EIR, and mitigation measures CUL-4 and CUL-5, described on page 4.5-23 would require identification of culturally sensitive sites, tribal consultation, and avoidance and preservation of tribal cultural resources. However, the draft EIR discloses that future development resulting from the 2040 General Plan could uncover previously unknown archaeological and tribal cultural resources during project-level construction activities, the discovery of which may result in damage, destruction, or changes in significance of the resource. For these reasons, the draft EIR determined that impacts to both archaeological and tribal cultural resources would be significant and unavoidable. Regarding the commenter’s reference to Native American sites, these are addressed under Public Resources Code Section 21074’s definition for tribal cultural resources. Public Resources Code Section 21074 states “tribal cultural resources” are either of the following:

- 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1 [of the Public Resources Code].
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1 [of the Public Resources Code]. In applying the criteria set forth in subdivision (c) of Section 5024.1 [of the Public Resources Code] for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
 - b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
 - c) A historical resource described in Section 21084.1 [of the Public Resources Code], a unique archaeological resource as defined in subdivision (g) of Section 21083.2 [of the Public Resources Code], or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 [of the Public Resources Code] may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

In regard to the commenter’s suggestion to provide a revised definition of “archaeological significance,” this would require amending the State Public Resources Code which the County lacks legal authority to do and is beyond the scope of this draft EIR. No further response can be provided.



February 26, 2020

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, California 93009

via email: GeneralPlanUpdate@ventura.org

Re: General Plan Update Draft Environmental Impact Report Comments

Dear Ms. Curtis,

The Ventura Chamber of Commerce (Chamber) is the leading business organization in the City of Ventura and serves to support a strong local economy through its stewardship of city policy and business development. The Chamber represents more than 700 businesses of varying sizes and industries who work together with local leaders to foster business development and job creation. We believe in stimulating and sustaining growth for Ventura businesses and the regional economy so that we have strong schools and a high quality of life for Ventura residents.

As the County moves through its General Plan Update Process, we appreciate the opportunity to provide comments on the Draft Environmental Impact Report (DEIR). We believe strongly that working together to shape our county's future is of the utmost importance.

After review of the DEIR, the Chamber urges the County to address the following components:

- Economic Vitality
- Affordable Housing

Economic Vitality - Economic vitality is a critical component and core principle of Ventura County's future. In fact, economic vitality is the second principle in the County's Vision Statement. Unfortunately, the DEIR falls short of providing a thorough analysis of how each policy impacts the economic vitality of the County. The scope of the report is limited to County costs and does not reflect the impacts that will be felt by residents. This is critical to ensure the regional economy is not put at risk.

O31-1
O31-2



Housing Affordability – The Ventura County Star recently published an article that cites low housing supply and lacking wage growth as the defining factors for the county's housing market over the last decade. Rent had increased 45% in the last ten years, and the median home price is now near \$600,000 according to Zillow. The DEIR does not address the serious affordability crisis Ventura County residents face, specifically related to housing. Rushing the document creates a situation that excludes coordination from Southern California Association of Governments (SCAG) and the Regional Housing Need Allocation numbers that are not expected to be finalized until October 2020. The DEIR asserts that an estimate will be released in February 2020. At a minimum, the DEIR should be revised to include the estimated numbers. The Housing Element is incomplete without this data. Considering housing is the top issue facing the state of California and Ventura, the DEIR must include an accurate impact analysis.

O31-3

The DEIR process does not need to be rushed. We urge you to take the time to revise the DEIR and recirculate it to the public again and focus on economic vitality and housing.

O31-4

Thank you,

A handwritten signature in black ink, appearing to read "Stephanie Caldwell".

Stephanie Caldwell
President & CEO
Ventura Chamber of Commerce



| | |
|-----------------------|-------------------------------------------------------------------------------------------------------|
| Letter O31 | Ventura County Chamber of Commerce Stephanie Caldwell, President & CEO February 26, 2020 |
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- O31-1 The description of the role and responsibilities of the commenting organization is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required. See responses to comments O31-2 and O31-3, below, regarding economic impacts and affordable housing.
- O31-2 The comment suggests that the draft EIR should evaluate impacts to “economic vitality.” However, EIRs are not required to treat a project’s economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The comment does not provide evidence that implementing the 2040 General Plan would result in any adverse physical changes to the environment, including any physical environmental changes as a result of economic or social effects, not already addressed in the draft EIR.
- O31-3 Refer to Master Response MR-3, which explains the relationship between the 2040 General Plan, the impending Regional Housing Needs Assessment allocation, and the subsequent update to the Housing Element. Refer to the response to comment O24-4 for discussion of the draft EIR analysis of impacts to housing including affordable housing in Section 4.14, “Population and Housing.”
- O31-4 Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.



Letter
O32

February 25, 2020

**Ventura County CoLAB
Board of Directors & Officers**

John Hecht, Sespe Consulting
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Mark Mooring, Buon Gusto Farms
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Bud Sloan, Sloan Ranches
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Neal Maguire,
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Jeff Nobriga, California Resources Corp.,
Director

Tony Skinner, IBEW Local 952
Director

Alex Teague, Limoneira
Director

Andy Waters, Waters Family Farms
Director

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Re: 2040 General Plan Draft Environmental Impact Report

Dear Ms. Curtis:

Thank you for the opportunity to provide our comments on the 2040 General Plan Draft Environmental Impact Report (EIR). Ventura County CoLAB represents over 500 members consisting of citizens, labor organizations, businesses and agricultural interests in Ventura County. We have been actively participating in the 2040 General Plan Update process and hope that you will give our comments on the EIR full consideration as you move forward with your response.

O32-1

CoLAB has identified several significant concerns with the EIR. As you are aware, the County has an obligation under the California Environmental Quality Act (CEQA) to disclose, thoroughly analyze and quantify all reasonably foreseeable impacts of a project (here, defined as the implementation of the 2040 General Plan), and propose feasible mitigation measures to reduce these impacts.

While we understand that programmatic-EIRs are necessarily broader in scope than project-specific EIRs, all EIRs must comply with CEQA guidelines, including the requirement that all required information be included in the EIR to support any analysis of impacts. In addition, CEQA guidelines specifically state that the agency cannot defer, or "push off" to a future project-specific analysis, the determination of reasonably foreseeable impacts in the programmatic EIR (15152(b)).

O32-2

In a 2014 ruling, the California Court of Appeal upheld the CEQA standard, stating "Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the "rule of reason," rather than any semantic label accorded to the EIR."

The 2040 General Plan EIR, as written, does not meet CEQA standards and must be revised and recirculated.

O32-3

General Comments

- There are glaring inconsistencies of policies in the 2040 General Plan. The 2040 General Plan contains policies that conflict, are infeasible, are vague and ineffective, or attempt to pre-emptively seize authority that the County does not have. Any analysis of impacts in the EIR that relies upon such flawed policies for significance determination is deficient and unsupportable.

As an example, this EIR applies policies that “encourage” or “discourage” behaviors as evidence of reducing an impact to “less than significant.” But the EIR does not provide success metrics for any “encourage/discourage” policies. Nor does the EIR contain any discussion that differentiates as to what level of “encourage/discourage” compliance led to the determination that the impact was reduced to “less than significant”; likewise, the level of “encourage/discourage” non-compliance that would lead to a determination of “significant.”

O32-4

- CEQA defines the project as the “whole of an action” subject to a public agency’s approval or funding “that may result either directly or indirectly in physical changes to the environment.” However, throughout the document, the EIR fails to analyze or discuss *all* policies and programs that will result in impacts.

As an example: The EIR does not discuss and consider the complete implementation of the 2040 General Plan (including all policies or programs that will increase vegetation fuel loads) in the analysis and determination of wildfire impacts. In another section, the EIR does not evaluate the implementation of the 2040 General Plan (including buildout under the Land Use Designations, which will increase competition for water supply) in the analysis and determination of impacts on agricultural land.

O32-5

“Cherry-picking” select portions of the whole project for impact analysis and determination does not meet the CEQA standards. The EIR must be revised to analyze and disclose the impacts of the whole project, which is the entire 2040 General Plan.

Project Description

- The 2040 General Plan and EIR are inconsistent in their description of the project. The EIR does not provide a complete list of all policies and programs in the 2040 General Plan (example: LU-11.X). The EIR does not describe or identify which policies and programs of the 2040 General Plan are meant to replace or modify which policies and programs in the existing General Plan. The EIR also does not identify which existing General Plan policies and programs are being removed as part of this project. Without this information (perhaps provided as a matrix outlining additions, modifications, updates, and replacements), the EIR does not provide the reader with information necessary to evaluate or understand the County’s analysis of impacts.

O32-6

Page 3 of 18

- The Project Description does not provide sufficient information necessary to analyze and determine impacts. The EIR provides only a vague description of the Land Use Designations that will exist under the 2040 General Plan, and vague statements of “buildout” allowing “relatively higher intensity” residential, commercial and industrial land uses. Neither the EIR nor the Background Report provide information regarding estimated and anticipated “buildout” in terms of acreage, actual location, number of dwelling units, and development density and intensity. The EIR contains no information regarding the amount, timing, and final anticipated buildout under the 2040 General Plan. While the lack of information may be due to the EIR being completed prior to the issuance of Regional Housing Needs Allocation numbers from the State, such vague and meaningless information does not meet the CEQA standard for analysis and determination of impacts.

O32-7

In addition, there are conflicting and confusing statements throughout the EIR about the anticipated “buildout” under the 2040 General Plan. In one section, the EIR states that development anticipated under the 2040 General Plan Land Use Designations will be “consistent with densities and intensities” allowed under current zoning. And in another section, the EIR states that development will be “relatively higher” in density and intensity than current. Without consistent, detailed, and accurate information regarding the anticipated buildout under the 2040 General Plan, the impact analyses in the EIR are flawed and incomplete and must be revised.

Background Report and supporting Appendices

Throughout the EIR, the reader is referred to the Background Report and Appendices for all data and technical information used in the analyses of impacts. In actuality, many sections of the Background Report contain only general, outdated, incomplete, and, at times, incorrect information. In some instances, information and data conflict between different Appendices. Unsupported, erroneous, outdated and conflicting information should not be used for impact analysis.

- Example: Outdated information

All data (whether in prose or tabulated form) in Chapter 9 of the Background Report is grossly outdated. This includes readily accessible data, such as crop reports. Current data on crops and crop production is publicly available and can be downloaded from the County’s own Agricultural Commissioner’s Office website.

O32-8

Providing “older data” is helpful to evaluate historic trends. However, in every section, the EIR refers the reader to the Background Report for the project’s “current” conditions.

The Background Report must be updated with the most current data available. Failure to disclose and apply current and timely information and data in the analysis of impacts renders the analyses in the EIR incomplete, at best.

- Example: Incorrect data:**
 Page 2-54 states "...[the oil and gas] industry supported 3,211 direct jobs and over \$652 million in labor income in Ventura County" (*emphasis added*). Yet these numbers directly conflict with the uncited statement on page 8-80: "there were 431 employees working in Ventura County [for oil and gas]..." (*emphasis added*). Which of these numbers (if any) is correct and represents the "current conditions" for the project?

O32-8
cont.

The Background Report must contain correct and factual data to support the analysis of impacts in the EIR.

- Example: Conflicting data**
 Page 2-54 of the Background Report states "Production throughout the state had been declining since the 1980s, as oil reserves in the state have diminished. In recent years, the drilling of oil wells and well stimulation (including hydraulic fracturing), has been reduced in response to current oil prices." And page 8-74 of the Background Report states: "this level of production represents a 42 percent decrease in production from 1987 levels" (*emphasis added*). Yet Appendix D: GHG applies calculations that assume an anticipated future increase of over 1 million barrels of production. Appendix D does not provide references or citations as to what information the County may have that supports an increase in reserves and production.

O32-9

Page 9-34 of the Background Report states that 85% of all agricultural products are exported out of the County, with 60% being exported to foreign lands. Yet only a few sentences later, the Background Report describes the exportation of Ventura County agricultural products as a "small niche." 85% does not align with either "small" or "niche" and the use of this phrase needs to be corrected or clarified.

- Example: Poor quality information**
 The maps provided in the EIR and the Background Report are of such small size, low resolution and insufficient detail that they do not provide the reader with the information necessary to evaluate or determine impacts or to determine which parcels or areas may be impacted. In some instances, the maps are blurry and notations on the map are illegible (such as Figure 9-7).

O32-10

For example, Figure 11-11 is of such poor resolution and detail that it is impossible for the reader to determine where actual urban-wildfire risk interface areas may exist for any parcel or specific area. Figure 11-11 is significantly smaller than 8.5X11 and is of such great scale of distance that the entire County appears bright red and does not provide enough detail for any meaningful analysis of impacts.

- Example: Vague or missing information**
 The Background Report does not provide any information about Land Conservation Act (LCA) contract trends. Without an understanding of how contract numbers may be

O32-11

Page 5 of 18

increasing or decreasing, or whether the specific agricultural “use types” (i.e., row crop, orchards, grazing, etc.) of lands under LCA contract has been shifting over time, the Background report lacks the information necessary to evaluate impacts to LCA contracted lands.

O32-11
cont.

Section 4.1:

- Regulatory Setting:

The Regulatory Setting of this section provides a good overview of the lighting restrictions in County’s Zoning Ordinances. However, the EIR does not reference other regulations and regulatory bodies that may affect aesthetic resources or recognize that impacts to aesthetics is not limited solely to lights. This section should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that may affect aesthetics as a whole (for example: State Historic Preservation Programs, Scenic highway and Byway Programs, Homeowners Associations within the unincorporated area, Building Codes, etc.)

O32-12

- Impact 4.1-3 (Create glare for motorists) and Impact 4.1-4 (Create impacting day or night views)

The EIR does not analyze all applicable and appropriate 2040 General Plan policies for impacts. Policies HAZ-10.5, HAZ-11.7 (solar reflective roofs), HAZ-11.9 (promoting “cool pavement”) and Implementation Program U (Solar Canopies) all have reasonably foreseeable significant impacts that are not disclosed or analyzed in the EIR. The EIR should be updated to analyze the impacts of the whole of the project.

O32-13

- Proposed mitigation measure AES-1: The EIR does not evaluate the technologic and economic feasibility of this mitigation measure, including whether this mitigation measure would foreseeably create compliance difficulties with policies HAZ-10.5 and HAZ-11.7.

O32-14

Section 4.2

- The EIR does not disclose or analyze the impacts of the most significant issues facing agriculture in Ventura County: lack of economic sustainability, lack of farmworker housing, increased regulatory demands on normal farming practices, increased competition for water resources, and increased compatibility conflicts with non-ag land uses. This issues all significantly impact the conversion of agricultural land to non-agricultural uses.

O32-15

The 2040 General Plan will directly and indirectly magnify these issues. Yet the EIR either fails to analyze these issues or dismisses them as “less than significant” without supporting evidence for the determination.

Page 6 of 18

- Regulatory Setting

Neither the EIR nor the Background Report provide any information regarding the recent Hemp Cultivation restrictions imposed by the County. A thorough discussion of all setbacks and restrictions on normal farming practices should be included in the EIR and use in the analysis and determination of impacts.

O32-16

- Proposed mitigation AG-2:

This mitigation measure is infeasible and must be removed from the EIR.

As the County is already aware, CEQA requires that all mitigation proposed in an EIR be feasible and that feasibility take into account economic, environmental, social, and technological factors. In 2016, Supervisor Linda Parks proposed a mitigation measure at the Local Agency Formation Commission. Supervisor Parks' mitigation measure was identical to AG-2, with one notable exception: she proposed a 1-to-1 replacement requirement and this EIR proposes 2-to-1 replacement. At that meeting, County Counsel, Michael Walker, informed Supervisor Parks that her proposed mitigation measure was economically infeasible and could not be included in an EIR. Mr. Walker cited several court decisions to support his statement, including *Masonite v. Mendocino* and *City of Irvine v. County of Orange*. In *City of Irvine v. County of Orange*, the Court found that the "sheer astronomical expense of land support the finding of the EIR that the purchase of agricultural conservation easements is a non-starter." And the requirements in AG-2 go well beyond what Supervisor Parks had proposed.

Even without the question of economics, mitigation measure AG-2 still does not meet the CEQA standard for feasibility. In the discussion of this mitigation measure, the following information is not included in the EIR:

O32-17

- Whether there is sufficient land available for purchase/conservation easement for each farmland category;
- Any information that could constitute a "plan" for management of farmland in conservation easements;
- An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with land use compatibility conflicts and increased urban-ag-interface);
- Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and,
- Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

Furthermore, CEQA guidelines require that all mitigation measures proposed in an EIR must be shown to reduce impacts. An infeasible mitigation measure, by definition, cannot and will not reduce impacts.

Page 7 of 18

Mitigation Measure AG-2 must be removed and the EIR revised to propose feasible alternative mitigation measures. CoLAB has proposed several alternative mitigation measures in this letter for you to consider.

O32-17
cont.

- Water Supply

On page 4.2-5, the EIR states "the General Plan would not result in any other changes that due to location and nature would result in conversion of farmland." This statement is refuted only a few sentences later when the EIR acknowledges the impacts of both economic burdens and decrease in water supply for irrigation.

Both the EIR and the Background Report fail to discuss or provide any information regarding projected water demand that will occur as a result of the project. But the EIR admits in the Methodology discussion of this section that a decrease in water supply for irrigation will be an indirect impact of the 2040 General Plan. Reducing water for irrigation will convert agricultural land to non-agricultural uses and cause a loss of topsoil, resulting in addition loss of agricultural land. This reasonably foreseeable indirect impact must be analyzed, and mitigation measures proposed that preserve the ability of agriculture to irrigate agricultural land at sufficient volumes to keep lands in active crop production and protect loss of topsoil from wind erosion.

O32-18

- Other direct and indirect impacts to agriculture not analyzed in this EIR

- Neither the EIR nor the Background Report provide information regarding estimated and anticipated "buildout" under the 2040 General Plan in terms of acreage, actual location, number of dwelling units, and development density and intensity. As the EIR is anticipated to be completed prior to the County receiving the Regional Housing Needs Allocation number, the EIR simply does not have the data necessary to conduct the analysis required under CEQA to determine either where or what the full extent of potential impact on agricultural lands from increased urban-ag interface.

O32-19

- The EIR does not analyze impacts from any policies in the 2040 General Plan related to bicycle network expansion. Policies such as CTM-3.3, CTM-3.4, CTM-3.5, CTM-3.6, CTM-3.7, CTM-2.12 and Implementation Program L support the expansion of the County bicycle path network. These policies will result in bicycle paths on or immediately adjacent to agricultural lands.

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of these policies for their direct and indirect impacts on conversion of agricultural land and on establishing non-agricultural uses adjacent to agricultural lands. The EIR must be revised to include this analysis and then recirculated.

O32-20

Proposed mitigation: Protect agricultural land from direct and indirect impacts (such as physical loss of agricultural land converted to a bicycle path, urban-ag interface encroachment and compatibility conflicts) by establishing setbacks on non-AE zoned

lands that will prohibit the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned AE.

O32-20
cont.

- The EIR does not analyze the direct and indirect impacts of policies that support transportation improvements such as roadway widening on the loss of agricultural land. On page 4.1-28 the EIR states that implementation of the 2040 General Plan will create increased traffic volumes and page 4.3 of the EIR states that the increased traffic will result in "physical changes...necessitated by the 2040 General Plan (e.g., new facilities, infrastructure upgrades)".

The Background Report includes the County's buildout plans for future roadway widening and improvements to address the increased traffic caused by the project. These roadway improvements are cited in the section 4.16-1 and referenced in the EIR determination of impacts.

O32-21

Some of the locations identified for roadway widening and improvements will result in the conversion of agricultural land to non-agricultural uses and the conversion of agricultural land due to the loss of topsoil, particularly in the Victoria and Olivas Park Road areas. Yet the EIR has failed to analyze this significant impact or proposed mitigation to reduce it.

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of policies supporting roadway expansion for their direct and indirect impacts on conversion of agricultural land and on establishing non-agricultural uses adjacent to agricultural lands. The EIR must be revised to include this analysis and then recirculated.

- Page 4.2-13 of the EIR states "[Policy] AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

O32-22

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the

potential for conflicts would be minimal. This impact would be less than significant” (emphasis added).

The determination in the EIR is not supported by factual evidence. Both historic and current County actions demonstrate that, contrary to the EIR’s assertion, the County creates new restrictions and ordinances on agriculture and farming operations solely because of “conflicts attributed to residential development.” The recent interim urgency ordinance restricting hemp cultivation is one such example.

In light of the current actions of the County and the Board of Supervisors to place severe setbacks on hemp cultivation and create economic injury to farmers, the EIR’s assertion that the County will utilize the Right to Farm Ordinance to protect agricultural operations from nuisance complaints is unsubstantiated by factual evidence. This determination analysis is flawed. The EIR must conduct a thorough analysis of impacts to agriculture from the increase in nuisance complaints that will arise from implementation of the project.

Proposed mitigation: Strengthen the Right to Farm Ordinance to prevent nuisance complaints from being used as the sole basis to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices.

- o The EIR omits any analysis of direct and indirect impacts of economic sustainability on conversion of agricultural lands.

The EIR asserts that there are “existing mechanisms in place to support the preservation of agriculture” and reduce significant impacts to the environment. As stated in the EIR, one of these mechanisms is the Save Open Space and Agricultural Resources (SOAR) initiative. SOAR recognizes that “for agriculture to be sustainable in Ventura County, it must remain economically viable” and mandates that the County “promote the economic viability of agricultural lands by assisting agricultural producers and establishing zoning policies that support long term investment in agriculture” as a method of reducing the conversion of agricultural lands to non-agricultural uses.

Yet no analyses of the impact of Policy AG-5.2 (transition to electric- or renewable-powered equipment) and AG-5.3 (transition to electric- or renewable-powered irrigation pumps) were provided in the EIR. These policies will adversely impact the economic sustainability of agriculture by increasing costs of normal farming operations. Agricultural profitability has a direct impact on the conversion of agricultural lands to non-agricultural uses, as recognized in the EIR’s discussion of LCA contracts. The EIR should analyze the impacts of economic sustainability on the conversion and loss of agricultural land and propose mitigation measures to reduce this impact.

O32-22
cont.

O32-23

In addition, the EIR does not analyze other impacts from the project that will decrease economic sustainability for agriculture and result in conversion of agricultural lands to non-agricultural uses. The project will cause increased urban-ag interface. It is well acknowledged that as non-agricultural land uses expand, compatibility conflicts with normal farming operations increase (*San Diego County General Plan EIR, Napa County General Plan EIR*). Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and trespass on agricultural lands.

O32-23
cont.

These impacts decrease the economic stability and sustainability, as agricultural operations are subjected to restrictions on normal operations, setbacks and cultivation restrictions, and increased security costs. Agricultural profitability has a direct impact on the conversion of agricultural lands to non-agricultural uses, as recognized in the EIR's discussion of LCA contracts. The EIR should analyze the impacts of economic sustainability on the conversion and loss of agricultural land. The significant impact of conversion of agricultural lands to non-agricultural uses due to profitability is best reduced by mitigation measures that support a network of economic sustainability and stability for local farming. One potential proposed measure is outlined below.

Propose mitigation:

Page 9-3 of the Background Report states that the "current trend is for 'locally grown' products. The Background Report goes on to acknowledge there are limited opportunities for this in Ventura County due to the lack of processing operations. Agricultural Processing should be a growth industry that supports economic sustainability for agriculture in Ventura County. This can be facilitated by mitigation measures that expand the ability of local growers to build processing facilities, as well as permit more types of processing, such as additives and bottling.

O32-24

The definition of "pre-processing" in the Non-Coastal Zoning Ordinance must be expanded to create opportunities for long-term economic viability for agriculture. With very minor changes in the NCZO to the term "pre-processing", the County would create more options for bagged and juice box products that would foster more options for field processing of avocados, lemons and strawberries into guacamole, lemonade and purees.

The current total allowable acreage for processing countywide is limited to 12 acres. Increasing the allowable acreage to a minimum of 100 acres would better support the needs for pre-processing in the County.

- Determination of Impact 4.2-3

In the discussion supporting the determination of "less than significant" impacts, the EIR does not rely on data or actual information, but rather in vague descriptors. On page

O32-25

Page 11 of 18

4.2-19, the EIR states that “these impacts will only occur in a small area. On page 4.2-20, the EIR uses the phrase “most areas.”

The use of vague descriptors like “small” and “most” fail to convey any information about the actual impact. Use of these descriptors (rather than actual data such as acreage and residential density and intensity adjacent to LCA contracted lands) precludes any ability to analyze this impact. By relying on vague and meaningless terms for determination of impacts, the EIR does not actually disclose any information about the impact itself. To meet CEQA standard and guidelines, the actual acreage, location and intensity of urban-ag interface must be evaluated in the EIR to determine both significance of impact and quantification.

O32-25
cont.

Neither the EIR nor the Background Report provide information regarding estimated and anticipated “buildout” under the 2040 General Plan in terms of acreage, actual location, number of dwelling units, and development density and intensity. As the EIR is anticipated to be completed prior to the County receiving the Regional Housing Needs Allocation number, the EIR simply does not have the data necessary to conduct the analysis required under CEQA to determine either where or what the full extent of potential impact on agricultural lands from increased urban-ag interface.

O32-26

Section 4.5

- The EIR does not analyze either the feasibility of or significant impacts caused by Mitigation Measure CUL-1C on the County’s GHG/Zero Net Energy/Carbon/Energy Efficiency goals. This mitigation measure modifies Implementation Program COS-X to require that all houses constructed in 1970 and earlier must undergo historic evaluation before upgrades can be made. “Upgrades” include modifications required or “encouraged” in the 2040 General Plan, such as the installation of solar panels, reflective roofs, updating windows and doors to more energy efficient models, and potentially wiring and electrical upgrades to support conversion to all electric appliances. In order to meet GHG, zero net carbon, zero net energy, energy efficiency and energy conservation goals and directives in the project, the County must rely on residents to complete these upgrades. But this mitigation measure discourages (and in some cases will effectively prevent) residents from upgrading their homes. The impact of this mitigation measure on the County’s ability to achieve the projects goals, policies and programs must be analyzed.

O32-27

Section 4.8

- Mitigation Measure GHG-1
Both the EIR and the Background Report fail to disclose and provide any information regarding Ventura County’s existing and on-going energy supply conditions, which include “public safety shutdowns” of large sections of the electrical grid. County residents have suffered through extended electrical power outages that prevented the

O32-28

use of any electrical appliances (including hot water heaters, HVAC systems, and cooking appliances).

By prohibiting natural gas infrastructure, the County is removing residents' access to non-electric utilities. This will subject Ventura County residents to extended periods without hot water, heat, and the ability to cook food. A thorough and complete analysis of impacts would reveal that this mitigation measure presents a public health and safety risk. While not specifically discussed in the CEQA guidelines, common sense would demand that any mitigation measure that creates or amplifies a public health and safety risk is infeasible.

O32-28
cont.

In addition, the EIR does not analyze the reasonably foreseeable impact of this mitigation measure on increasing GHG emissions. Many residents who will be forced to have only electric appliances will utilize fossil-fuel powered generators to run those appliances during power shutdowns. The surge of generator sales and use related to the California power outages is discussed in depth in the Wall Street Journal, Fox Business, CNBC, LA Times, and the San Francisco Chronicle. While some residents may use solar (battery stored) power, the EIR has provided no information about how many residents are anticipated to convert to solar and this "assumption" cannot be applied in the determination of significance of this impact.

Section 4.9

• Determination of significance for Impact 4.9-1 and Impact 4.9-2

The EIR does not include Policy CTM-6.4 in its impact analysis. Furthermore, neither Policy LU-11.X nor Implementation Program LU-Program X are mentioned or analyzed for impacts anywhere in the EIR. Yet the EIR has determined, without having conducted a complete and thorough analysis of the entire project, that the impact will be less than significant.

As the 2040 General Plan policies do not place any restrictions on or specify what types of alternative energy production shall be allowed, the EIR must analyze any and all reasonably potential production types. This includes those types that require the use and disposal of chemicals. According to the US EPA, common chemicals used in alternative energy production include hydrochloric acid, copper, silicon, and cadmium, among many others— all of which are considered both hazardous materials and hazardous wastes.

O32-29

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of these policies for their direct and indirect impacts on hazardous materials and hazardous waste risks. The EIR must be revised to include this analysis and then recirculated.

• Impact 4.9-6

I O32-30

The EIR acknowledges that "managing fuel through activities such as vegetation removal and controlled burns, the County and other agencies would be directly reducing the chance of wildfire as well as fuels that would feed wildfires..." (*emphasis added*).

CoLAB agrees with the County's assertion that the removal of vegetation reduces the impact of wildfire risk. By the same logic, and with no evidence to the contrary in either the EIR or the Background Report, increasing vegetation shall increase the impact of wildfire risk. However, the EIR does not analyze the impacts of policies COS-3.2, COS-1.15, Implementation Program COS-H and Implementation Program COS-C and others which increase fuel load and vegetation that "feed wildfires."

O32-30
cont.

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of these policies for their direct and indirect impacts on wildfire risks. The EIR must be revised to include this analysis and then recirculated.

- The EIR states "...the County shall discourage the building of homes in very high fire severity zones. By discouraging development in these areas, the County seeks to reduce the incidence of wildfire and minimize wildfire effects." But the County has failed provide information that proves this policy will actually reduce impacts, as required under CEQA. Neither the EIR nor Background Report contain any information this is necessary to determine how - and to what extent - this policy will reduce impacts. The EIR does not provide any analysis or information to determine the County's anticipated compliance goal for these "encourage/discourage" policies. Without such data, the EIR does not provide evidence that the policies will indeed reduce impacts.

O32-31

- The Background Report provides data on the locations and potential locations of hazardous materials and hazardous wastes in Ventura County (pg. 11-68 and 69) But this information is never applied in the EIR analysis for impacts 4.9-1, 2, and 3. There is no discussion, description of locations, or map evaluating potential areas of development under the Land Use designations in the 2040 General Plan against the known locations of hazardous materials and hazardous wastes. Yet, the EIR has determined, without actually conducting such an analysis, that impacts will be less than significant.

O32-32

This impact determination is premature. The EIR must analyze the potential "buildout" under the Land Use Designations in the 2040 General Plan against the known locations of hazardous materials and waste.

Section 4.10

The EIR does not evaluate the impacts of Land Use Designations and policies that will force planned growth into existing Industrial and Commercial lands on their exposure to flood hazards (Impact 4.10-13).

O32-33

Page 14 of 18

The Background Report contains an erroneous map that misrepresents the potential overlap of Industrial and Commercially designated areas with designated flood hazard areas. The area delineated as “floodplain” in Figure 3-7 does not correlate with Ventura County GIS data. Ventura County GIS data provides information that supports the determination that the policies in the 2040 General Plan will create a significant impact, as there are industrial and commercial parcels within the flood hazard zone. CoLAB has attached both Figure 3-7 and a map (Figure A) from the County View’s website, created with the County’s GIS data for comparison.

O32-33
cont.

Section 4.11

The EIR does not analyze policies in the 2040 General Plan that will require solar installation, reflective roofs, and other improvements in their analysis for Impact 4.11-1. As Ventura County has many neighborhoods and residential areas with distinct architectural styles, these policies will have a significant impact on compatibility with existing architectural form and style and must be analyzed.

O32-34

Section 4.12

- Page 4.12-11 and 12: CEQA intends for this impact analysis is to determine and quantify the impact of the project on the ability to access reserves. Yet this section primarily evaluates the perceived impact of oil and gas production on local populations. While we support the County’s willingness to conduct supplemental impact analysis in the EIR, the County still has an obligation under CEQA to conduct the actual analysis required. The County’s analysis of Impact 4.12-3 does not meet the intent and standard of review under CEQA. The EIR must be revised to include the CEQA required analysis, which is whether the allowable buildout and other policies in the 2040 General Plan will hamper access to reserves.

O32-35

- Regulatory setting

Both the Background Report and the EIR do not contain a complete and thorough overview and summary of the regulatory setting applicable to this section. Several agencies, regulations and ordinances have been excluded from this section of the EIR, such as CalGEM, CalOSHA, California Highway Patrol, Ventura County Environmental Health, California Department of Fish and Wildlife, US Coast Guard, US EPA, Regional Water Quality Control Board, State Water Resources Board, and many others.

O32-36

This section should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that may affect mineral and petroleum resources.

- The EIR states that the Area Plans were “reviewed for policies and implementation programs specific to these areas that would potentially have impacts on the environment with respect to mineral and petroleum resources” and that “the 2040

O32-37

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General Plan would not result in substantive changes to Area Plan policies and implementation programs related to mineral and petroleum resources.” This statement is unsupported and erroneous, as the North Avenue Area Plan has several policies that would be impacted by the General Plan, including (but not limited to):

- pg. 5 where the applicability of land use designations to oilfield activities is discussed and evaluated;
- pg. 9-10 and Appendix G which discuss the relation of transportation improvements and bike path expansion on the oilfield activities;
- pg. 11 which analyzes oilfield activities on the "general character" of the area; and so on...).

O32-37
cont.

Contrary to the assertion in the EIR, the policies in the 2040 General Plan would have a significant impact on the North Ventura Avenue Area Plan and the EIR must include the Area Plans in the impact analysis.

- On page 4.12-9, the EIR states that Land Use Designation changes would result in potential changes to surrounding land uses near oil reserves. But the EIR does not quantify this impact. Neither the EIR nor the Background Report provide information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. As the EIR is anticipated to be completed prior to the County receiving the Regional Housing Needs Allocation number, the EIR simply does not have the data necessary to conduct the analysis required under CEQA to determine either where or what the full extent of potential impact on lands adjacent to or overlaying mineral reserves.
- The EIR provides only a vague description of the Land Use Designations that will exist under the 2040 General Plan, and vague statements of "buildout" allowing "relatively higher intensity" residential, commercial and industrial land uses. Neither the EIR nor the Background Report provide information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. The EIR contains no information regarding the amount, timing, and final anticipated buildout under the 2040 General Plan. While the lack of information may be due to the EIR being completed prior to the issuance of Regional Housing Needs Allocation numbers from the State, such vague and meaningless information does not meet the CEQA standard for analysis and determination of impacts.
- The EIR also has not analyzed or determined the indirect impacts on access to reserves. As residential and urban densities increase near or adjacent to mineral reserves, urban-mineral development compatibility conflicts increase. Reasonably foreseeable indirect impacts include nuisance complaints, theft, vandalism and attempted trespass on lands overlaying reserves.

O32-38

O32-39

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As these conflicts increase, the County has historically placed restrictions and setbacks on lands overlaying reserves (for example, policies in the 2040 General Plan to expand existing setbacks on lands overlaying reserves). As the resulting setbacks and restrictions will hamper access to reserves and resources, the indirect impacts caused by the Land Use Designations in the 2040 General Plan must be evaluated and mitigation to reduce impacts must be considered.

O32-39
cont.

Section 4.13

- Proposed Mitigation Measure NOI-1 recommends the creation of Policy HAZ-X which will require the installation of noise control measures, which “may include vegetation.” The EIR does not analyze the significant impact of this mitigation measure on Impact 4.9-6 (wildfire risk).

Vegetative noise reduction buffers are well-studied, and many reputable experts have developed planting and vegetation density guidelines that must be followed to actually create a measurable reduction in traffic noise. Unfortunately, these vegetative noise reduction buffers require density and distribution of brush that conflicts with the requirements for vegetation clearance in most Fire Codes. The EIR must evaluate the feasibility of this mitigation measure as written, including whether this mitigation measure conflicts with any existing County regulation or ordinance. This mitigation measure must also be fully analyzed for any and all impacts it will cause (such as increased wildfire risk).

O32-40

CEQA guidelines provide the legal and administrative standards for all environmental impact analyses. The 2040 General Plan EIR does not meet CEQA standards on many levels. CoLAB sincerely hopes that the County will put forth a good faith effort to address and correct the issues identified not just in our comment letter, but in all comment letters received and will recirculate an EIR that meets all legal standards. Our shared goal is a strong 2040 General Plan that supports Ventura County’s agricultural community, its residents, and long-term economic stability.

O32-41

Sincerely,



Louise Lampara
Executive Director

Attachment

| | |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Letter O32 | Ventura County Coalition of Labor, Agriculture and Business Louise Lampara, Executive Director February 25, 2020 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------|

- O32-1 The description of the commenting organization and its participation in the 2040 General Plan process is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- O32-2 The comment correctly describes the County’s obligation under the California Environmental Quality Act (CEQA) to analyze and disclose the reasonably foreseeable effects of implementing the 2040 General Plan. The draft EIR provides an appropriate level of detail for programmatic analysis of the 2040 General Plan. Refer to response to comment O5-6. Significant and unavoidable impact conclusions are reached where there is not substantial evidence in the record that there is a feasible means of effectively mitigating potential impacts from all projects that could occur in the unincorporated county over the 20-year plan horizon. There are seven out of 88 impacts where there is a significant and unavoidable impact conclusion and no feasible mitigation is available. This comment does not offer any specific examples of draft EIR impact analysis sections that are deferred or any actual feasible mitigation measures that should have been included in the draft EIR to avoid or substantially lessen any significant impacts. No further response is required.
- O32-3 Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.
- O32-4 The comment summarizes more detailed comments provided elsewhere in the comment letter. See responses to comments O32-6 through O32-40, below, regarding the commenter’s specific comments related to the draft EIR analysis of the proposed 2040 General Plan policies and how impact conclusions were made.
- O32-5 This comment asserts that the draft EIR does not analyze “all” policies and programs included in the 2040 General Plan and that the draft EIR project description is inconsistent with the 2040 General Plan because the EIR project description “does not include a complete list of all policies and programs in the 2040 General Plan.” Refer to Master Response MR-2 for discussion of how the level of detail on the 2040 General Plan included in the draft EIR project description meet CEQA requirements and description of how the draft EIR considered and applied the policies and programs of the 2040 General Plan in the analysis of environmental impacts.

The analysis of project-specific environmental impacts is divided into 17 resource sections in the draft EIR. In each resource section, the “Environmental Impacts and Mitigation Measures” subsection includes a list of policies and implementation programs from the 2040 General Plan that are related to the resource and the applicable thresholds of significance analyzed in that section. This summation of key policies and programs resulted in concerns expressed by the commenter that the full range of potential effects of policies and programs

proposed in the draft 2040 General Plan were not evaluated in the draft EIR, resulting in unevaluated indirect impacts. While selected policies and programs are provided to facilitate review of key issues, they are not intended to limit the scope of the subsequent impact analysis. As explained in the “Approach to Environmental Analysis” (page 4-3 of the draft EIR):

Adverse physical impacts to the environment associated with implementation of the 2040 General Plan are the focus of this environmental analysis. Physical changes could result from subsequent development pursuant to land use designations established in the 2040 General Plan, implementation of policies and implementation programs identified in the 2040 General Plan, and offsite or indirect development that is necessitated by the 2040 General Plan (e.g., new facilities, infrastructure upgrades). For the purpose of this environmental analysis, the types of actions that could result in physical changes to the environment under the 2040 General Plan are referred to collectively as “future development.”

The comment states that the draft EIR does not discuss and consider 2040 General Plan policies or programs that will increase vegetation fuel loads in the analysis of wildfire impacts. However, by analyzing the entire “program,” the draft EIR does address the direct and indirect impacts of 2040 General Plan policies related to vegetation fuel loads (see Impact 4.9-6 [expose people to risk of wildfire] in the draft EIR). No new or substantially more severe significant wildfire impacts that were not already included in the draft EIR would occur as a result of issues raised in this comment. Also, see response to comment O32-30, below, regarding direct and indirect effects of proposed 2040 General Plan policies related to wildfire risks.

The comment states that the draft EIR does not evaluate the impacts of 2040 General Plan buildout related to increased competition for water supply. By analyzing the entire “program,” the draft EIR addresses the direct and indirect impact of 2040 General Plan policies related to water supply (see Impact 4.17-4 [adverse effects to available water supplies] in the draft EIR). Moreover, the analysis conducted in Impact 4.17-4 is based in part on estimates of future water demand increases resulting from forecast growth accommodated by 2040 General Plan implementation (draft EIR page 4.17-15 to 4.17-16). No new or substantially more severe significant impacts that were not already included in the draft EIR would occur as a result of the issues raised in this comment. Also, see response to comment O32-18, below, regarding direct and indirect effects of proposed 2040 General Plan policies related to water supply. Also refer to Master Response MR-2 for discussion of how growth projections and buildout assumptions were used in the draft EIR.

Also, see responses to comments O32-6 through O32-40, below, regarding the commenter’s specific comments related to the draft EIR’s analysis of the “whole of the action,” including all of the proposed 2040 General Plan policies.

O32-6 The comment states that the draft EIR does not describe differences between the existing 2005 General Plan and the proposed 2040 General Plan and asserts

that the draft EIR impact analysis cannot be evaluated or understood. CEQA requires an evaluation of the project being proposed compared to baseline (existing) conditions, which are generally the existing physical environmental conditions (CEQA Guidelines, § 15125(a)). As such, the draft EIR analyzes the potential for substantial adverse changes to the existing environment that could result from implementation of the proposed 2040 General Plan land use diagram, as well as proposed policies and implementation programs. The analysis in the draft EIR is not intended to provide a comparison of the proposed 2040 General Plan against the 2005 General Plan; such a comparison would not be appropriate under CEQA.

O32-7 This comment addresses the level of detail provided in the draft EIR project description, the description of the 2040 General Plan land use designations in the draft EIR, the description and use of buildout assumptions in the draft EIR, and the 2020 Regional Housing Needs Assessment allocation.

Refer to Master Response MR-2 for discussion of the draft EIR project description, including the description of the 2040 General Plan land use designations, and for discussion of the buildout assumptions and growth projections used in the draft EIR. Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.

O32-8 The commenter indicates that more recent data about crop production is available and that further study of existing agricultural operations would better inform the analysis of direct and indirect impacts of the 2040 General Plan on agriculture. The thresholds used to evaluate the effects of implementing the 2040 General Plan on agriculture are explained in Section 4.2, “Agriculture and Forestry Resources” (pages 4.2-3 through 4.2-5). The thresholds used to determine the significance of the 2040 General Plan’s impacts are based on the County’s Initial Study Assessment Guidelines (ISAG), which include threshold criteria to assist in the evaluation of significant impacts for individual projects. As explained in the draft EIR, to develop thresholds of significance, the County deviated from the ISAG threshold criteria, where appropriate, to consider the programmatic nature of a general plan for the entire unincorporated area and to incorporate the 2019 revisions to the Appendix G checklist. Specifically, implementation of the 2040 General Plan would have a significant impact on agricultural resources if it would: result in the direct and/or indirect loss Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance; result in incompatibilities with adjacent land uses due to addition of nonagricultural structures or uses in proximity to classified farmland; or conflict with existing zoning for agricultural use or a Land Conservation Act (LCA) contract.

The evaluation of the potential significance of impacts pursuant to these thresholds is not predicated on an understanding of the various and changing dynamics of local crop production, export, or sales. As explained in the “Methodology” subsection (page 4.2-3 of the draft EIR), the EIR analysis considers whether future development under the 2040 General Plan could result in loss of agricultural

resources or conversion of agricultural resources to non-agricultural uses or result in indirect loss of agricultural resources by allowing for non-agricultural land uses adjacent to classified farmland. The analysis also evaluates the potential for conflicts between the 2040 General Plan land use designations and properties with existing zoning for agricultural use and Williamson Act contracts. To determine whether implementation of the 2040 General Plan would result in adverse impacts on agricultural and forest resources, the proposed land use diagram was compared to the location of existing agricultural and forestry resources, including Important Farmland Inventory Maps, LCA contract maps, and the County's aerial imagery.

The commenter does not explain why providing more recent statistics about crop production and value would change the analysis and conclusions of the EIR in a fundamental way. No additional update or revision to the Background Report is required. Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.

The comment also refers to a description in the Background Report asserting that there are incorrect data related to the reporting of oil and gas industry supported jobs versus the number of employees working in Ventura County for the oil and gas industry.

The thresholds used to evaluate the effects of implementing the 2040 General Plan on mineral and petroleum resources are explained in Section 4.12, "Mineral and Petroleum Resources" (beginning on page 4.12-6). The thresholds used to determine the significance of the 2040 General Plan's impacts are based on the County's ISAG, which include threshold criteria to assist in the evaluation of significant impacts for individual projects. As explained in the draft EIR, to develop thresholds of significance, the County deviated from the ISAG threshold criteria, where appropriate, to consider the programmatic nature of a general plan for the entire unincorporated area and to incorporate the 2019 revisions to the Appendix G checklist. Specifically, implementation of the 2040 General Plan would have a significant impact on mineral and petroleum resources if it would:

- ▶ Result in any land use, project activity, or development, which is on or adjacent to existing mineral resources extraction sites, immediately adjacent to land zoned Mineral Resource Protection (MRP) overlay zone or land mapped for mineral resources, or adjacent to a principal access road to an existing aggregate extraction or production site, and as a result could hamper or preclude extraction of the resources.
- ▶ Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.
- ▶ Result in development on or adjacent to existing petroleum extraction sites or areas where petroleum resources are zoned, mapped, or permitted for extraction, which could hamper or preclude access to the resources.

- ▶ Result in the loss of availability of a known petroleum resource that would be of value to the region and the residents of the State.

The evaluation of potentially significant impacts pursuant to these thresholds is not predicated on an understanding of the various and changing dynamics of oil and gas industry jobs. As explained in the “Methodology” subsection (page 4.12-5 of the draft EIR), the draft EIR analysis evaluates the potential conflicts between the 2040 General Plan and the State mineral resource zones mapped by the California Division of Mines and Geology [now known as the California Geological Survey]) and County MRP overlay zone described in the Background Report. The potential for physical changes as a result of 2040 General Plan implementation within identified mineral resource zones (was determined using geographic information system software. Specifically, the analysis focused on MRZ-2 lands, which are identified in the County’s Non Coastal Zoning Ordinance with an MRP overlay. Consistent with ISAG Section 3a, any land use proposed on or immediately adjacent to land zoned in the MRP overlay designation or adjacent to a principal access road to a property with the boundaries of an existing conditional use permit for mineral (e.g., aggregate) resources extraction is considered to have the potential to hamper or preclude access to mineral resources.

Similarly, the evaluation of impacts on petroleum resources is based on the petroleum resources map (Figure 8-10 in the Background Report) and well data published by the State Division of Oil, Gas, and Geothermal Resources. These resources were compared to the proposed land use diagram in the geographic information system software to assess the overall proximity of future development under 2040 General Plan implementation to identified resource areas (i.e., oil fields and wells). Consistent with ISAG Section 3b, any land use designation that could result in development on or immediately adjacent to any known petroleum resource area, or adjacent to a principal access road to a property with an existing use permit for petroleum exploration and production, is considered to have the potential to hamper or preclude access to petroleum resources. The evaluation is program-level and identifies potential effects of 2040 General Plan implementation relative to existing conditions, based on reasonable inference and using readily available information.

The commenter does not explain why providing more recent statistics about oil and gas jobs and employees in the County of Ventura would change the analysis and conclusions of the draft EIR. No additional update or revision to the Background Report is required. Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.

O32-9

The comment notes that the Background Report suggests a trend toward reductions in oil production, but Appendix D to the draft EIR assumed an increase in production. As explained in responses to comments O6-30 and O20-7, the upward trend shown in Appendix D was the artifact of a calculation error that occurred when scaling the data. Appendix D has been revised and is included as Attachment 2 to this final EIR.

This correction eliminates the inconsistency noted by the commenter but does not affect the analysis or conclusions in the draft EIR.

- O32-10 The comments on the Background Report’s description of the export of agricultural products locally and regionally as a small niche in the county’s agricultural economy is noted. This description is not related to the adequacy of the draft EIR and no further response is required. Figure 9-7 is provided in the Background Report (page 9-15) to support the statement on page 9-13 that “(m)ost water used for agriculture in Ventura County is extracted from three watersheds: Ventura River, Calleguas Creek, and Santa Clara River.” The location of these watersheds is identified on Figure 9-7. No further level of detail, such as for specific parcels, is required on the topic of watersheds from agricultural water is sourced to evaluate or determine the impacts of 2040 General Plan implementation.

The comment also states that Background Report Figure 11-11 does not identify fire hazard areas for any parcel or specific area. This figure does identify fire hazard areas for the plan, which is adequate to support the analysis wildfire impacts in the draft EIR. Wildfire is addressed in Impact 4.9-6 (Expose People to Risk of Wildfire by Locating Development in a High Fire Hazard Area/Fire Hazard Severity Zone or Substantially Impairing an Adopted Emergency Response Plan or Evacuation Plan or Exacerbate Wildfire Risk). The analysis concludes that implementation of the 2040 General Plan would expose people or structures to a significant and unavoidable risk of loss, injury, or death involving wildland fires, and exacerbate wildfire risk because it would accommodate future development in or adjacent to high and very high fire hazard severity zones (FHSZs) or Hazardous Fire Areas.

Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR, including discussion on the level of detail and scale of information.

- O32-11 Information on LCA contract trends is provided in Chapter 9, “Agriculture,” of the Background Report. Information on LCA contracts in 2017 is provided on page 9-42 of the Background Report. Information on Open Space LCA contracts in 2015 is provided on page 9-44 of the Background Report. On page 9-45, the Background Report explains that 12 contracts were undergoing the Notice of Non-Renewal of the Entire Contract (ENNR) process. The Background Report explains:

As of 2015, Ventura County had 12 contracts undergoing the ENNR process that have been recorded with the County since 2008. The total acreage under these 12 contracts that will come out of the Program by 2024 totals 861 acres. Five of the 12 contracts totaling 226.61 acres, will expire in 2020, while the remaining seven contracts totaling 634.32 acres will expire in 2024.

Impacts related to LCA contracts are addressed in Impact 4.2-3 (starting at page 4.2-18). Note that the environmental baseline for determining impacts is generally the time at which the Notice of Preparation is released (CEQA

Guidelines, § 15125(a)(1)). As a result, the information provided about LCA trends is for informational purposes, rather than for establishing the baseline for assessing impacts under Impact 4.2-3.

O32-12 Page 8-65 of the Background Report includes the regulatory setting for scenic resources within Ventura County. Within this section, regulatory information is incorporated from the following resources: State Scenic Highways Program, Coastal Act, 2005 Ventura County General Plan (which includes county-wide and area-specific scenic resource goals, policies, and programs), 2011 Initial Study Assessment Guidelines, 2016 Coastal Zoning Ordinance, 2015 Ventura County Non-Coastal Zoning Ordinance, and the Local Scenic Highway Protection Program. In addition to these resources, the Background Report also identifies known scenic resource areas within the county. Further, Section 4.1, “Aesthetics, Scenic Resources, and Light Pollution,” of the draft EIR incorporates additional regulatory setting information that was not provided in the Background Report. This additional regulatory setting can be reviewed on pages 4.1-1 through 4.1-12 of the draft EIR. Both the draft EIR and Background Report include sufficient scenic resource regulatory information to adequately evaluate scenic resource impacts in the draft EIR. Refer to Master Response MR-6 which explains that the draft EIR includes regulatory setting relevant to the impact analysis conducted and it not required to describe regulation setting that is not pertinent to the analysis provided in the EIR.

O32-13 This comment asserts that specified policies of the 2040 General Plan would result in significant aesthetic impacts not disclosed in the draft EIR under Impact 4.1-3 (creation of disability glare for motorists) and Impact 4.1-4 (creation of light and glare affecting day or nighttime views), but it does not provide any specifics on how the analysis is lacking.

The analysis of project-specific environmental impacts is divided into 17 resource sections in the draft EIR. In each resource section, the “Environmental Impacts and Mitigation Measures” subsection includes a list of policies and implementation programs from the 2040 General Plan that are related to the resource and the applicable thresholds of significance. This summation of key policies and programs does not mean that the full range of potential effects of policies and programs proposed in the draft 2040 General Plan were not evaluated in the draft EIR. While selected policies and programs are provided to facilitate review of key issues, they are not intended to limit the scope of the subsequent impact analysis. As explained in the “Approach to Environmental Analysis” (page 4-3 of the draft EIR):

Adverse physical impacts to the environment associated with implementation of the 2040 General Plan are the focus of this environmental analysis. Physical changes could result from subsequent development pursuant to land use designations established in the 2040 General Plan, implementation of policies and implementation programs identified in the 2040 General Plan, and offsite or indirect development that is necessitated by the 2040 General Plan (e.g., new facilities, infrastructure upgrades). For the purpose of this environmental analysis, the types of actions that could result in physical changes to the

environment under the 2040 General Plan are referred to collectively as “future development.”

By analyzing the entire “program,” the draft EIR addresses the direct and indirect impacts of Policies HAZ-10.5, HAZ-11.7, HAZ-11.9 (see Impacts 4.1-3 [creation of disability glare for motorists] and 4.1-4 [creation of light and glare affecting day or nighttime views] in the draft EIR) to the extent required under CEQA.

Policy HAZ-10.5 and Implementation Program U would not have impacts related to light and glare. Policy HAZ-10.5 requires the County to work with applicants to incorporate facilities into their project to reduce air pollution and greenhouse gas emissions. The named facilities are “bike facilities, solar water heating, solar space heating, ...electric appliances and equipment, and the use of zero and/or near zero emission vehicles and other measures...” Note that solar water heating and solar space heating are generally passive solar systems rather than systems that use photovoltaic panels. Program U requires that the County develop an incentive program to promote passive solar home design and the use of green roofs and rooftop gardens. Therefore, none of the facilities named in the policy or implementation program would result in impacts related to light and glare.

Policy HAZ-11.7 requires that the County encourage development to include retrofits that improve building performance, which can include using solar-reflective white roofs and solar panels. Policy HAZ-11.9 requires that the County encourage urban greening techniques, such as cool pavement. Although neither policy requires any particular retrofit or technique be implemented, reflective roofs and cool pavement may produce glare. Solar panels generally aim to absorb sunlight and therefore do not reflect much light. These potential impacts are accounted for in Impacts 4.1-3 and 4.1-4, which evaluate the potential for development under the General Plan to result in new light and glare. For example, Impact 4.1-3 contemplates “future discretionary developments [that] propose reflective building materials” on page 4.1-27. Impact 4.1-4 refers to “light from new residential developments” on page 4.1-28.

The draft EIR therefore covers the potential impacts that could occur as a result of the policies and implementation program brought up by the commenter. Further, the comment offers no evidence to support how the analysis is inadequate; therefore, no additional response can be provided.

O32-14

The comment asserts that the draft EIR does not evaluate the technologic and economic feasibility of Mitigation Measure AES-1. As described in the draft EIR, this mitigation would establish an implementation program through which applicants for future discretionary development projects that include use of reflective surfaces that could produce glare and that the County determines would potentially be visible to motorists traveling along the County Regional Road Network would be required to submit a detailed site plan and list of project materials to the County for review and approval. If the County determines that the project would include materials that would produce disability or discomfort glare for motorists, the County would either require the use of alternative materials, or require that the applicant submit a study demonstrating that the project would not introduce a source of substantial glare. The comment suggests

that the draft EIR should include an evaluation of the economic and technologic feasibility of the measure, as well as potential to conflict with other policies in the 2040 General Plan. Specifically, the comment suggests potential for conflict with HAZ-10.5, through which the County would work with applicants to explore solar heating options, and HAZ-11.7, which would encourage similar retrofits to existing buildings. In these cases, the requirement to evaluate and address glare generated along the County Regional Road Network would supersede the County's encouragement of building elements where they are found to generate such impacts at the project-level.

The draft EIR does not need to evaluate the potential economic implications of the mitigation measure. The lead agency can, however, consider these factors when deciding whether to adopt the proposed mitigation as a component of the Findings required in Section 15091 of the State CEQA Guidelines. Section 15131(c) of the State CEQA Guidelines provides that "Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR. If information on these factors is not contained in the EIR, the information must be added to the record in some other manner to allow the agency to consider the factors in reaching a decision on the project."

O32-15

The comment states the draft EIR does not analyze the following agriculture-related issues: lack of economic sustainability, lack of farmworker housing, increased regulatory demands, increased competition for water resources, and increased conflicts with non-agricultural land uses. However, the draft EIR correctly omits analysis of these existing issues affecting farmland in the county. CEQA is concerned with direct and indirect physical changes in the environment that would result from implementation of the 2040 General Plan (State CEQA Guidelines, § 15358(b)). CEQA Guidelines Section 15126.2(a) explains that "[a]n EIR shall identify and focus on the significant effects of the proposed project on the environment." Therefore, only the impacts of agricultural changes caused by adoption of the General Plan need to be addressed in the EIR. The draft EIR appropriately focuses on the direct and indirect impacts that implementation of the 2040 General Plan would have on agricultural resources by evaluating the effects of the project:

- ▶ Impact 4.2-1 evaluates the potential for implementation of the General Plan to result in direct or indirect loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance.
- ▶ Impact 4.2-2 evaluates whether implementation of the General Plan would result in classified farmland being located near nonagricultural land uses or projects.
- ▶ Impact 4.2-3 evaluates whether implementation of the General Plan would conflict with LCA contracts or agricultural preserves.

Moreover, EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social

and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR.

The comment also asserts that the draft EIR does not address “increased compatibility conflicts” from non-agricultural uses, but in fact the draft EIR does analyze the potential for development under the 2040 General Plan to result in conflicts with classified farmland in Impact 4.2-2 (starting at page 4.2-17) and conflicts with LCA contracts and agricultural preserves in Impact 4.2-3 (starting at page 4.2-18).

The other issues raised by the commenter are addressed in the draft EIR. For example, housing is addressed in Section 4.14, “Population and Housing” (see Impacts 4.14-1 and 4.14-3, which specifically address affordable and low-income housing); water supply is addressed in Section 4.17, “Utilities” (see Impact 4.17-4, which addresses adverse effects related to available water supplies); and Section 4.2, “Agriculture and Forestry Resources” (see Impact 4.2-2, which addresses land use conflicts between agricultural and non-agricultural land). Each of these impact conclusions is supported by substantial evidence.

O32-16 The comment states neither the draft EIR nor the Background Report provide information regarding the County’s recent hemp cultivation restrictions. For this response to comment, it is presumed the commenter is referring to Ventura County Urgency Ordinance 4558.

CEQA does not have a specific mandate for regulatory setting. CEQA Guidelines Section 15125 refers to the environmental setting section of an EIR more generally, albeit with a focus on describing the physical conditions. As a general maxim for the setting, Section 15125(a) states that “[t]he description of the environmental setting shall be no longer than is necessary to provide an understanding of the significant effects of the proposed project and its alternatives.” The draft EIR applies this principle to the regulatory setting. Responses to comments A13-3 and A13-8 provide discussions of why Urgency Ordinance 4558 does not play a part in the analysis of impacts of the 2040 General Plan. As such, Urgency Ordinance 4558 is appropriately excluded from the draft EIR and Background Report.

O32-17 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2. Regarding the commenter’s suggested alternative mitigation measures, see responses to comments throughout this letter than pertain to mitigation measures.

O32-18 Contrary to the commenter’s claim, the draft EIR does not conclude in the methodology subsection of Section 4.2, “Agriculture and Forestry Resources,” that a decrease in water supply would be an indirect impact of the 2040 General Plan. The draft EIR instead states on page 4.2-3:

Examples of indirect losses of agricultural resources due to land use conflicts include: decreased solar access due to building heights from

nonagricultural uses, dust exposure from construction or ongoing operations, and a reduction in available water resources for irrigation.

Also, refer to response to comment A13-11 for a further discussion of available water resources for irrigation.

O32-19 The comment states that neither the draft EIR nor Background Report provide information regarding buildout under the 2040 General Plan. Further, the comment states that because the draft EIR is being completed before the County receives Regional Housing Needs Assessment (RHNA) data, the draft EIR analysis is inadequate. Refer to Master Responses MR-2 and MR-3 for additional information related to the 2040 General Plan buildout assumptions and RHNA, respectively.

O32-20 Refer to response to comment O7-8 regarding potential incompatibilities with adjacent bicycle paths. The potential for development under the 2040 General Plan to directly cause conversion of Important Farmland to nonagricultural use is addressed in Impact 4.2-1. The draft EIR concludes that impacts would be significant and unavoidable, even after implementation of Mitigation Measures AG-1 and AG-2. This conclusion covers future development undertaken pursuant to the 2040 General Plan, including impacts from development of bicycle paths. As explained in the “Approach to Environmental Analysis” (page 4-3 of the draft EIR):

Adverse physical impacts to the environment associated with implementation of the 2040 General Plan are the focus of this environmental analysis. Physical changes could result from subsequent development pursuant to land use designations established in the 2040 General Plan, implementation of policies and implementation programs identified in the 2040 General Plan, and offsite or indirect development that is necessitated by the 2040 General Plan (e.g., new facilities, infrastructure upgrades). For the purpose of this environmental analysis, the types of actions that could result in physical changes to the environment under the 2040 General Plan are referred to collectively as “future development.”

Refer to response to comment O7-8 for discussion of indirect agricultural resources impacts of bicycle and pedestrian trail users.

O32-21 This comment asserts that the draft EIR does not analyze the impacts of roadway widening improvements on the loss of agricultural land. The potential for development under the 2040 General Plan to directly cause conversion of Important Farmland to nonagricultural use is addressed in Impact 4.2-1. The draft EIR concludes that impacts would be significant and unavoidable, even after implementation of Mitigation Measures AG-1 and AG-2. Discussions specific to topsoil loss are included on pages 4.2-12 and 4.2-15 of the draft EIR. This conclusion covers all development undertaken pursuant to the 2040 General Plan and, therefore, includes development of roadways. As explained in the “Approach to Environmental Analysis” (page 4-3 of the draft EIR):

Adverse physical impacts to the environment associated with implementation of the 2040 General Plan are the focus of this environmental analysis. Physical changes could result from subsequent development pursuant to land use designations established in the 2040 General Plan, implementation of policies and implementation programs identified in the 2040 General Plan, and offsite or indirect development that is necessitated by the 2040 General Plan (e.g., new facilities, infrastructure upgrades). For the purpose of this environmental analysis, the types of actions that could result in physical changes to the environment under the 2040 General Plan are referred to collectively as “future development.”

Also refer to Master Response MR-2 for discussion of how the level of detail on the 2040 General Plan included in the draft EIR project description meet CEQA requirements and description of how the draft EIR analyzed the 2040 General Plan in the analysis of environmental impacts.

- O32-22 The comment states that the impact conclusion for Impact 4.2-2 (Result in Classified Farmland Near Any Nonagricultural Land Use or Project) is not supported by factual evidence in light of the recent actions by the County to place restrictions on hemp cultivation pursuant to Ventura County Urgency Ordinance 4558. Refer to response to comment A13-8 regarding Urgency Ordinance 4558. Refer to response to comment A13-12 regarding the suggestion to include mitigation that requires strengthening the Right-to-Farm ordinance.
- O32-23 The draft EIR correctly omits a discussion of direct and indirect effects of economic sustainability on conversion of agricultural lands. First, CEQA does not require an evaluation of economic impacts of a project unless they result in a physical change in the environment (State CEQA Guidelines, § 15131(a)). Therefore, the potential for the 2040 General Plan to increase costs of farming operations is not, by itself, an impact under CEQA. Indirect effects such as physical impacts resulting from an economic effect are defined as those that “are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable” (State CEQA Guidelines, § 15358). Therefore, any physical impacts emanating from economic impacts are indirect impacts appropriately considered under CEQA. However, the County is not aware of any evidence that supports the idea that the 2040 General Plan would so injure the sustainability of agriculture such that it would convert agricultural land to non-agricultural uses. For detailed discussions of specific policies raised in other comments, refer to response to comment A13-10 regarding the impacts of Policy Ag-5.2 and Policy AG-5.3. Refer to response to comment O7-8 regarding potential impacts related to theft and vandalism. Refer to draft EIR Impact 4.2-2 and Impact 4.2-3 for a discussion of nuisance issues that can arise from conflicts between agricultural and non-agricultural land uses; discussions of nuisance complaints can be found on pages 4.2-17 and 4.2-19 of the draft EIR. The commenter raises the issue of “traffic conflicts” but does not specify what those conflicts might be. Therefore, only a general response needs to be provided. Roadways, including roadways subject to heavy traffic use, are commonly adjacent to agricultural parcels. For example, in Ventura County, SR-126 is

adjacent to agricultural uses. The County is therefore unaware of evidence to support that there are traffic conflicts that would be so severe and widespread so as to result in cessation of agriculture adjacent to roadways. Similar to theft and vandalism as discussed in response to comment O7-8, the County is not aware of evidence that trespass on agricultural lands due to adjacent non-agricultural land uses can be so severe that they would result in adverse effects such as cessation of agriculture. Refer to response to comment O7-5 regarding setbacks.

Overall, the County is not aware of evidence that these impacts would be so severe so as to affect the economic viability of agricultural operations and result in conversion to non-agricultural use. The draft EIR analysis is adequate under CEQA.

O32-24 The comment suggests that the draft EIR should consider expanding the potential for the agricultural processing facilities through modification of the zoning ordinance as mitigation in the draft EIR. Although there is a significant and unavoidable impact related to loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance identified in the draft EIR (Impact 4.2-1), expansion of agricultural processing opportunities would not address this impact. For this reason, the suggestion has not been incorporated into the draft EIR.

O32-25 The comment is critical of the use of “vague descriptors” to make conclusions about the extent of impacts to LCA contracts and agricultural preserves. The analysis of Impact 4.2-3 (Conflict with Williamson Act Contracts or Agricultural Preserves) in the draft EIR is based on substantial evidence and an appropriate level of detail. The impact discussion does not include the statement that “these impacts will only occur in a small area.” The phrase “most areas” is used in the evaluation in the context of the reasonable inference that compliance with the County’s Agricultural/Urban Buffer Policy would occur – which requires a 300-foot setback with limited exceptions. As provided on page 4.2-20:

Most areas with a Residential, Mixed Use, Commercial, or Industrial land use designation under the 2040 General Plan would be located at least 300-feet from existing agriculture. Maintenance of the 300-foot buffer would minimize land use conflicts, as defined in the buffer policy. Reduction of land use conflicts encourages property owners to maintain their LCA contracts and AGP designations.

The impact evaluation is not impermissibly vague and provides sufficient detail to support the conclusion. CEQA standards and guidelines do not require quantification of impacts where the precise type and location of future development relative agricultural preserves cannot be known.

The draft EIR explains that the “County is responsible for ensuring that discretionary development adjacent to agriculturally designated lands does not conflict with agricultural use of those lands, which includes protection of agricultural land under LCA contracts and designated as AGP” (draft EIR page 4.2-19) and identifies relevant regulations and 2040 General Plan policies that are protective of agricultural preserves. As summarized on page 4.2-20:

No direct land use conflicts with existing LCA contracts would occur as a result of the land use diagram of the 2040 General Plan because it would not change the land use designation of any land under an existing LCA contract. No environmental impacts associated with residential development adjacent to any land under LCA/Williamson Act Contracts and AGP are expected to occur due to the protections and guidelines established in policies and programs that limit conflicts with agricultural uses and establishment of buffers between most agricultural and nonagricultural uses.

O32-26 The comment states that neither the draft EIR nor Background Report provide information regarding buildout under the 2040 General Plan. Further, the comment states that because the draft EIR is being completed before the County receives RHNA data, the draft EIR analysis is inadequate. Refer to Master Responses MR-2 and MR-3 for additional information related to the 2040 General Plan buildout assumptions and RHNA, respectively.

O32-27 As described on page 4.5-16 of the draft EIR, Mitigation Measure CUL-1c would apply solely to discretionary projects. As stated in Section 15356 of the CEQA Guidelines, “discretionary project” means a project which requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity. Residential home upgrades would not generally constitute a discretionary project. For those residential structures that have been determined to be historical resources, home improvements such as installation of solar, reroofing, and window replacements, would be covered under the Ventura County Cultural Heritage Board Ordinance and are not limited by the 2040 General Plan. No further response is required.

O32-28 The comment asserts that Mitigation Measure GHG-1 could exacerbate existing electrical supply conditions, resulting in effects to public health and safety, and may increase net GHG emissions due to use of generators during power outages. For a general discussion of these concerns and the minimal energy demand associated with forgoing natural gas service to some new development, refer to response to comment O28-3. Refer to response to comment O28-4 for discussion of the potential for Mitigation Measure GHG-1 to increase GHG emissions. Response to comment O28-6 provides a discussion of the potential for Mitigation Measure GHG-1 to contribute to power outages that result in economic effects.

O32-29 The comment asserts 2040 General Plan Policy CTM-6.4 (Facilities for Emerging Technologies) is not included in the draft EIR impact analysis and refers to the analysis of hazardous materials impacts in Impact 4.9-1 and 4.9-2. This policy states that: “The County shall support the development of alternative fueling stations (e.g., electric and hydrogen) and vehicle-to-infrastructure (V2I) technology for emerging technologies.” The 2040 General Plan does not include a Policy LU-11.X nor a Land Use Implementation Program X, which are also referred to in this comment.

This program EIR evaluates the reasonably foreseeable environmental effects of implementing the 2040 General Plan. The analysis of project-specific environmental impacts is divided into 17 resource sections in the draft EIR. In

each resource section, the “Environmental Impacts and Mitigation Measures” subsection includes a list of policies and implementation programs from the 2040 General Plan that are related to the resource and the applicable thresholds of significance. This summation of key policies and programs resulted in concerns expressed by the commenter that the full range of potential effects of policies and programs proposed in the draft 2040 General Plan were not evaluated in the draft EIR, resulting in unevaluated indirect impacts. While selected policies and programs are provided to facilitate review of key issues, they are not intended to limit the scope of the subsequent impact analysis. As explained in the “Approach to Environmental Analysis” (page 4-3 of the draft EIR):

Adverse physical impacts to the environment associated with implementation of the 2040 General Plan are the focus of this environmental analysis. Physical changes could result from subsequent development pursuant to land use designations established in the 2040 General Plan, implementation of policies and implementation programs identified in the 2040 General Plan, and offsite or indirect development that is necessitated by the 2040 General Plan (e.g., new facilities, infrastructure upgrades). For the purpose of this environmental analysis, the types of actions that could result in physical changes to the environment under the 2040 General Plan are referred to collectively as “future development.” As the commenter notes, Impact 4.9-1 (Create a Significant Hazard to the Public or the Environment Through the Routine Transport, Use, or Disposal of Hazardous Materials or Hazardous Waste) and Impact 4.9-2 (Create a Significant Hazard to the Public or the Environment Through the Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials or Hazardous Waste into the Environment) were found to be less than significant in light of existing federal and State regulations that govern the use, transport, and disposal of hazardous materials and wastes. This determination was reached by analyzing the complete program of actions outlined in the 2040 General Plan. In doing so, the draft EIR addresses potential effects of policies and programs supporting production and use of alternative fuels (e.g., electric and hydrogen) on public health and safety. The commenter does not provide evidence to demonstrate that these policies could result in an impact not considered in the analysis, or that the potential for significant hazard to the public and the environment is not addressed through established regulations.

The discussion of Impact 4.9-1 discloses that implementation of the 2040 General Plan would accommodate future development that could involve “the use, storage, disposal and transportation of hazardous materials or hazardous waste” (see page 4.9-12 of the draft EIR), and Impact 4.9-2 discusses the potential for implementation of the 2040 General Plan to “accommodate an increase in activities that commonly store, use, and dispose of hazardous materials and hazardous waste” (see page 4.9-14 of the draft EIR). However, the draft EIR concludes that this impact would be less than significant because “County activities and discretionary development would be required to comply with State law, federal law, and 2040 General Plan policies and implementation programs that would substantially lessen potential impacts.”

The federal Occupational Safety and Health Administration has identified potential hazards in biofuels production and handling related to fire and explosion, chemical reactivity, and toxicity. These types of hazards are not uncommon in industrial areas and are subject to regulations that pertain to safely managing highly hazardous chemicals (29 Code of Federal Regulations [CFR] § 1910.119) and facilities handling flammable or combustible liquids (29 CFR § 1910.106). Siting and operating alternative fueling stations would also be subject to State and local permitting.

Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

O32-30

This comment asserts that the draft EIR does not analyze the wildfire-related impacts of specified 2040 General Plan policies and programs that the commenter contends would increase fuel load and vegetation and “feed wildfires.” In Impact 4.9-6 (Expose People to Risk of Wildfire by Locating Development in a High Fire Hazard Area/Fire Hazard Severity Zone or Substantially Impairing an Adopted Emergency Response Plan or Evacuation Plan or Exacerbate Wildfire Risk), the analysis is focused on whether people would be exposed to wildfire because the 2040 General Plan would allow development in areas with a known potential for wildfire hazard area, exacerbate wildfire risk, or impair implementation of an established response plan. The analysis (page 4.9-23 of the draft EIR) refers to Policy HAZ-1.8, which requires the County to collaborate with federal agencies to manage fuel on federally owned or managed lands within the county. In doing so, the analysis states that “the County and other agencies would be directly reducing the chance of wildfire as well as fuels that would feed wildfires.”

The comment expresses concern that any addition of vegetation would, by contrast, exacerbate wildfire risk. Policy COS-1.15 would establish a county-wide target of planting two million trees by 2040. Through Implementation Program H the County would plant at least 1,000 trees annually. Policy COS-3.2 would encourage planting trees and the protection of existing urban forests and woodlands, and Implementation Program C would further enhance conservation of urban forests and oak woodlands through update of the existing Tree Protection Regulations in the Non-Coastal Zoning Ordinance.

This program EIR evaluates the reasonably foreseeable environmental effects of implementing the 2040 General Plan. The analysis of project-specific environmental impacts is divided into 17 resource sections in the draft EIR. In each resource section, the “Environmental Impacts and Mitigation Measures” subsection includes a list of policies and implementation programs from the 2040 General Plan that are related to the resource and the applicable thresholds of significance. This summation of key policies and programs resulted in concerns expressed by the commenter that the full range of potential effects of policies and programs proposed in the draft 2040 General Plan were not evaluated in the draft EIR, resulting in unevaluated indirect impacts. While selected policies and programs are provided to facilitate review of key issues, they are not intended to limit the scope of the subsequent impact analysis. As explained in the “Approach to Environmental Analysis” (page 4-3 of the draft EIR):

Adverse physical impacts to the environment associated with implementation of the 2040 General Plan are the focus of this environmental analysis. Physical changes could result from subsequent development pursuant to land use designations established in the 2040 General Plan, implementation of policies and implementation programs identified in the 2040 General Plan, and offsite or indirect development that is necessitated by the 2040 General Plan (e.g., new facilities, infrastructure upgrades). For the purpose of this environmental analysis, the types of actions that could result in physical changes to the environment under the 2040 General Plan are referred to collectively as “future development.”

The County acknowledges that the tree planting policies noted by the commenter have the potential to increase the density of, and exposure to, wooded areas. Therefore, in consultation with the Ventura County Fire Protection District, Policy COS-1.15 and Policy COS-3.2 have been revised as shown in the Ventura County Planning Commission hearing materials for July 16, 2020 (see exhibit for “Planning Division Recommended Revisions to the 2040 General Plan”).

In addition, all tree planting and protection would be subject to existing federal, state, and local regulations adopted for the purpose of minimizing the hazard associated with wildfire. For example, the Ventura County Community Wildfire Protection Plan (CWPP) reduces hazardous fuels throughout the County and provide measures to reduce structural ignitability in at-risk communities. The Fire Hazard Reduction Program requires mandatory 100-feet of brush clearance around structures located in or adjacent to Hazardous Fire Areas.

Planting trees and encouraging urban forests would not substantially increase the severity of this significant and unavoidable impact beyond what has been disclosed in the draft EIR.

Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

O32-31

The comment asserts that the draft EIR wildfire impact analysis does not explain how the County will discourage the building of homes in very high fire severity zones. The analysis of potential wildfire impacts first evaluates the wildfire hazard in the county and discusses key regulations that would reduce the hazard. Then, the analysis outlines 2040 General Plan policies that would also address the potential for future development accommodated by the general plan land use diagram or implementation of 2040 General Plan policies and implementation programs to substantially influence this risk. Policy HAZ-1.5, which discourages building of homes in very high fire severity zones, is one of the many policies addressed in this discussion. As pointed out by the commenter, discouraging alone does not measurably reduce the potential for exposure to wildland fire. That is one reason why the analysis concludes that “implementation of the 2040 General Plan could result in development that exacerbates the potential for wildfires to occur and the resulting adverse environmental effects that are associated with these events” (draft EIR page

4.9-24). Before concluding that the impact would be significant and unavoidable, the draft EIR explains that (page 4.9-24):

The County has adopted and implemented programs to minimize wildfire risks including the MHMP. In addition, the Ventura County CWPP reduces hazardous fuels throughout the County and provide measures to reduce structural ignitability in at-risk communities. The Fire Hazard Reduction Program requires mandatory 100-feet of brush clearance around structures located in or adjacent to Hazardous Fire Areas. Many communities also have adopted their own emergency response plans. The 2040 General Plan includes a suite of policies and implementation programs that address a full spectrum of wildfire prevention standards for new development including vegetation management, fire suppression equipment, discouraging development in fire hazard areas, and education programs to prevent wildfires. Finally, existing federal and State building code standards, including the recently-adopted 2019 fire code, would require future development to be designed to minimize fire risk. Because the effects of a wildfire are not limited to development within high FHSZs but can easily spread to adjacent communities, any development in or adjacent to a designated FHSZs or near wildland areas is at risk for wildfire. While compliance with federal, State, and local requirements would limit risk, this risk cannot be completely eliminated. No other additional policies or programs are available that could eliminate the potential for wildfires or their environmental effects to occur because the only way to fully mitigate additional exposure of people to wildfire or exacerbation of wildfire risk is to prohibit all development in or near any areas that are at risk for wildfire. Based on the topography and vegetation characteristics of the county, very few if any such areas exist. Further, many existing developed areas already pose a wildfire risk because of their proximity to wildland areas. The County has undertaken a substantial effort to implement policies and implementation programs that would protect people and structures from the risk of wildfires while at the same time promoting the economic growth of the County. No additional feasible policies or implementation programs are available to reduce the risk of wildfire exposure, exacerbation, or resulting adverse environmental effects to less than significant.

O32-32

This comment states that the draft EIR “must analyze the potential ‘buildout’” of the 2040 General Plan “against the known locations of hazardous materials and waste.” This program EIR has been prepared in a manner consistent with CEQA statute. As explained in Section 1.2.1, “Type and Use of This EIR,” of the draft EIR (page 1-2), “[b]y its nature, a program EIR considers the overall effects associated with implementing a program (such as a general plan) and does not, and is not intended to, examine individual projects that may be implemented pursuant to the general plan.”

Overlaying the location of all hazardous materials and waste sites in the State and local databases on the land use diagram for the 2040 General Plan, which is intended to focus growth in areas with existing residential, commercial, and/or

industrial uses that are currently within the Existing Community area designation (boundary) and the Urban area designation (boundary) is not required and would not be germane to the analyses in Impacts 4.9-1, 4.9-2, or 4.9-3. These impacts determine whether the 2040 General Plan would create a significant hazard to the public or the environment due to: routine transport, use, or disposal of hazardous materials; reasonably foreseeable accidents that would release hazardous materials; or release of hazardous emissions near a school. The precise location of potential environmental hazards would fluctuate over the 20-year plan horizon. The specific sites that handle potentially hazardous materials would change (underground fuel storage tanks could be removed, new industrial uses could be introduced), sites of legacy contamination could be remediated, and new spills could occur or be discovered. At the plan level, the analysis assumes that certain land uses are more likely to be associated with hazardous materials and wastes and concludes that existing State and federal regulations, supported by proposed 2040 General Plan policies and implementation programs, provide sufficient protection to address significant hazards without additional mitigation. Refer also to Master Response MR-2 for further discussion of the land use plan and how “buildout” was used in the analysis.

The draft EIR analysis does consider the relative presence of documented hazardous materials and wastes sites. This information is appropriately included under Impact 4.9-4 (Create a Significant Hazard Due to Location on a Site Which is Included on a List of Hazardous Materials Sites). As summarized on page 4.9-16 of Section 4.9, “Hazards, Hazardous Materials, and Wildfire,” in the draft EIR:

As described in Section 11.5, “Hazardous Materials,” of the Background Report, there were 300 hazardous materials sites in the county, as of November 2016 (Appendix B:11-64). Of that number, 27 were permitted underground storage tanks, 273 have undergone or are undergoing hazardous materials remediation, and one site contains a leaking underground storage tank (LUST) and is undergoing assessment (Appendix B 2018:11-64). Of the 273 sites that have or may undergo remediation, 162 have been designated as “Completed-Case Closed,” including landfill sites and LUST sites (Appendix B:11-64). The Background Report also discusses ongoing hazardous waste cleanup sites in the county, including the Halaco Superfund site, Santa Susana Field Lab, USA Petrochem, and the Talley facility (Appendix B:11-69, 11-70).

On page 4.9-17 of the draft EIR, the analysis concludes:

Implementation of the 2040 General Plan could result in future development on or near a site identified in one of the regulatory databases, compiled pursuant to Government Code Section 65962.5, including those sites discussed above and identified in Section 11.5, “Hazardous Materials,” of the Background Report. Federal and state regulations exist that prevent or reduce hazards to the public and environment from existing hazardous waste sites or hazardous substances release sites. These regulations include the Occupational Safety and Health Act; the Comprehensive Environmental Response, Compensation, and Liability Act; the Superfund Amendments and Reauthorization Act Title III; the Resource Conservation

and Recovery Act; and the Toxic Substances Control Act. These regulations protect people and the environment through guidelines that require proper storage and handling, business and environmental management plans, spill contingency plans, employee and public noticing, and other emergency preventive and response measures to minimize the risk of accidental releases and related environmental effects. 2040 General Plan Policy HAZ-5.7 requires project applicants to indicate the presence of any hazardous wastes on a project site and demonstrate that the waste site is properly closed, pursuant to all applicable state and federal laws. Policies HAZ-5.2, HAZ-5.5, HAZ-5.8, and HAZ-7.1 provide guidance for the location, operation, and management of discretionary developments, including oil and gas exploration and production sites to minimize the potential for affecting people and the environment. While implementation of the 2040 General Plan could potentially accommodate future development on or near sites included on a list of hazardous waste sites or hazardous substances release sites, compliance with federal and state laws and regulations, as well as 2040 General Plan policies, would ensure that development would occur on sites that have been properly closed and remediated such that no remaining hazards from past contamination would remain.

As discussed above, the precise location of future hazardous materials use or remediation is beyond the scope of this EIR and would be addressed at a project level. Future projects should rely on contemporary database searches to assess the potential presence of hazards and hazardous materials. Programmatically, there is no indication that the policies, implementation programs, and land use diagram of the 2040 General Plan would result in significant hazards to human health or the environment due to compliance with applicable regulations. Providing additional detail about the existing locations of known sites of hazardous materials release would not meaningfully change the analysis or conclusions in the draft EIR. No revisions to the draft EIR have been made in response to this comment.

O32-33 This comment addresses the draft EIR analysis of flood exposure (Impact 4.10-13) and a map of flood hazard areas included in the Background Report. The proposed land use diagram of the 2040 General Plan would guide future development of relatively higher intensity residential, commercial, mixed use, and industrial land uses to the Existing Community area designation (boundary) and the Urban area designation (boundary). While it is true that these are areas of the County with existing development, the 2040 General Plan does not include policies that will, as asserted by the commenter, “force planned growth into existing commercial and industrial lands.” For further discussion of the land use plan and growth projections, refer to Master Response MR-2.

The discussion of Impact 4.10-13 (Be Located in a Mapped Area of Flood Hazards) is provided for informational purposes only. As disclosed in the draft EIR, the discussion is neither mandated by CEQA nor subject to its requirements. Development could occur in areas that are susceptible to flood hazards, as mapped by FEMA and the Ventura County Watershed Protection District. The draft EIR explains that there are policies incorporated in the 2040 General Plan that

would reduce potential impacts related to flooding, such as policies that limit development in these areas and require flood control infrastructure. The discussion of flood hazards is based on the information and mapping in Section 11.2, “Flood Hazards,” of the Background Report, including Figure 11-4 (Special Flood Hazard Areas), Figure 11-5, (Countywide Dam Failure Inundation Areas) and Figure 11-6 (Individual Dam Failure Inundation Areas).

The commenter provided a copy of the North Ventura Avenue Area Plan (Figure 3-17 of the Background Report) and expressed concern that the areas designated as “Floodplain” are not the same as the flood hazard areas shown in the County’s online mapping. As explained on page 3-47 of the Background Report, Figure 3-17 shows the existing North Ventura Avenue Area Plan land use designations. The Background Report also explains that the Floodplain land use designation is applied to land in the 100-year floodplain of the Ventura River. The North Ventura Area Plan (page NV-10), which is a component of the 2040 General Plan, indicates that the “underlying land use designations outside the floodway but within the 100 Year Floodplain are “Industrial,” generally located north of Shell Road or south of Gosnell Bend, and “Oilfield Industrial,” generally located north of Gosnell and south of Shell Road.” Further, the 2040 General Plan (Table 11-1, page 11-4) indicates that the Floodplain area plan land use designation is consistent with an Industrial General Plan land use designation.

The maps cited by the commenter show separate designations that are not in conflict. The draft EIR discloses that development could occur in floodplains but does not reach a significance determination because exposure of a project to environmental hazards are not considered significant effects unless a project exacerbates the risks from such hazards.

O32-34

This comment asserts that the 2040 General Plan includes policies that will “require” solar installation, reflective roofs, and other improvements and these policies will have significant impacts due to incompatibility with existing architectural form and style that were not analyzed in the draft EIR in Impact 4.11-1.

Impact 4.11-1 (Result in Physical Development That Is Incompatible With Land Uses, Architectural Form Or Style, Site Design/Layout, Or Density/Parcel Sizes Within Existing Communities) considers potential impacts affecting architecture and style in three categories: historic character, architecture, and public spaces and explains that Section 2.4 of the Land Use Element of the 2040 General Plan includes policies that encourage discretionary development to be designed to maintain the distinctive character of unincorporated communities and to be compatible with neighboring uses (see draft EIR page 4.11-20). Policy LU-16.1 encourages discretionary development to be designed to maintain the distinctive character of unincorporated communities, to ensure adequate provision of public facilities and services, and to be compatible with neighboring uses. As described on page 4.11-21 of the draft EIR, policies and programs in the 2040 General Plan would not result in physical development that is incompatible with existing land uses, architectural form or style, site design/layout, or density/parcel sizes within existing communities. Impacts were determined to be less than significant and therefore, no mitigation is required.

The 2040 General Plan also includes policies that encourage development to include sustainable, green building design features. These include Policy PFS-2.2, through which the County would encourage the incorporation of sustainable design features, including reflective roofing, in community facilities to reduce environmental impacts and Policy HAZ-11.7, which requires that the County encourage development to include retrofits that improve building performance, which can include using solar-reflective white roofs and solar panels. Policy HAZ-11.9 requires that the County encourage urban greening techniques, such as cool pavement. These policies do not “require” installation of reflective roofs, solar, or other features as asserted by the commenter.

These potential impacts are accounted for in Impact 4.11-1, which evaluates the potential for the 2040 General Plan to result in physical development that is incompatible with existing land uses, architectural form or style. The draft EIR therefore covers the potential impacts that could occur as a result of the policies brought up by the commenter. Further, the comment offers no evidence to support how the analysis is inadequate; therefore, no additional response can be provided.

O32-35

The comment asserts that Impact 4.12-3 of the draft EIR must be revised to include CEQA required analysis, which is whether the 2040 General Plan will hamper access to reserves. The comment states that the County’s analysis of Impact 4.12-3 does not meet the intent and standard of review under CEQA, but does not provide any evidence to support this claim. However, Impact 4.12-2, in Section 4.12, “Mineral and Petroleum Resources” of the draft EIR, evaluates whether implementation of the 2040 General Plan would result in development on or adjacent to existing petroleum resources extraction sites or areas where petroleum resources are zoned, mapped, or permitted for extraction, which could hamper or preclude access to the resource (pages 4.12-11 to 4.12-18). The detailed analysis concludes that 2040 General Plan “Policy COS-7.2 would notably increase the existing setback requirements for new oil and gas wells such that future residential development or new schools could preclude expansion of existing oil and gas operations, as well as drilling of new discretionary wells, thereby hampering or precluding access to the resource.” (page 4.12-18) This is identified as a potentially significant impact. The methodology and thresholds used to conduct the analysis of Impact 4.12-3 are described in detail in Section 4.12 (page 4.12-5 to 4.12-7). Because the comment does not identify any specific reasons to supports its assertions, no further response can be provided.

O32-36

The commenter indicates that the Background Report should include regulatory information that goes beyond consideration of the laws and regulations pertaining to petroleum development. The Background Report Section 8.4, “Mineral Resources,” Section 8.5, “Energy Resources,” and Section 10.2 “Legal and Regulatory Framework for Water Management (Class II Underground Injection Control Program),” provide relevant regulatory information necessary for understanding and evaluating the impacts of the 2040 General Plan on petroleum resources. Additionally, draft EIR Section 4.12.1, “Background Report Setting Updates,” includes additional information laws and regulations that

pertain to petroleum development. This includes federal laws and regulations related to gas pipelines, State laws and regulations related to the California Pipeline Safety Act of 1981, Ventura County Air Pollution Control District (VCAPCD) Rule No. 71.1 – Crude Oil Production and Separation and Rule No. 54 – Sulfur Compounds, VCAPCD Primary (Non-Emergency) Flares, VCAPCD Emergency Flares, and VCAPCD Permitted Flare Variances, and Non-Coastal and Coastal Zoning Ordinances. Note also, that the County has revised the regulatory setting to include an enhanced discussion of CALGEM’s regulations. Refer to Chapter 3, “Revisions to the Draft EIR.”

- O32-37 The comment addresses the North Ventura Avenue Area Plan (NVAP) policies related to mineral and petroleum resources and the 2040 General Plan. The commenter asserts that the draft 2040 General Plan policies will impact the NVAP policies related to mineral and petroleum resources. The commenter provides references to content on NVAP pages 5, 9, 10, and 11; however, the commenter incorrectly identifies the information on these pages as including policies. Page 5 of the NVAP identifies the existing land use designation of Industrial and Oilfield Industrial and describes the specific uses and rationale for this land use designation. Pages 9 and 10 of the NVAP describe the City of Ventura’s Circulation Element with a discussion of the development requirements of the oilfield industrial area pursuant to the City. Page 11 of the NVAP presents Section A(1) Intent and Rationale for Land Use Designation, General Character. The general character of the North Ventura Planning Area is described indicating “Given the stability of the existing residential areas and the importance of oilfield development, the overriding intent of the land use designations in this area are to protect the quality and integrity of the existing residential neighborhoods, to provide the expansion and upgrading of the industrial areas, and to project scenic vistas and environmental quality of the hills and river.” The commenter addresses the NVAP and implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O32-38 The comment states that the draft EIR does not quantify changes to land uses near oil reserves and that neither the draft EIR nor Background Report provide information regarding buildout under the 2040 General Plan. Further, the comment states that because the draft EIR is being completed before the County receives RHNA data, the draft EIR analysis of impacts to mineral reserves is inadequate. Refer to Master Responses MR-2 for additional information related to the 2040 General Plan land use designations and buildout assumptions and Master Response MR-3 regarding the 2020 RHNA. Refer to responses to comments O5-90 and O5-91 for discussion of the draft EIR analysis of impacts to mineral resources in Impact 4.12-1 and 4.12.-2.
- O32-39 Refer to Master Response MR-4, Section MR-4.H, “Buffers (Setback),” and MR-4.I, “Directional Drilling,” regarding the findings and conclusions related to setbacks and indirect impacts on reserves (directional drilling). The remainder of the comment addresses implementation of the 2040 General Plan and is not

related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

O32-40

Section 15126.4 of the CEQA Guidelines states “an EIR shall describe feasible measures which could minimize significant adverse impacts.” Mitigation Measure NOI-1 provides a list of noise control measures that may be implemented to reduce project-generated traffic noise. Mitigation Measure NOI-1 recommends considering vegetation but does not prescribe increased vegetation. Impact 4.9-6 on page 4.9-19 of the draft EIR recognizes exposure of people to risk by wildfire due to the location of development in a High Fire Hazard Area/Fire Hazard Severity Zone as a significant and unavoidable impact. However, federal, State, and local plans and regulations would reduce the risk of wildfire in the plan area by requiring vegetation management and compliance with applicable building codes that require access to adequate fire suppression infrastructure and specify the materials and construction methods for protection against exterior wildfire exposure. All recommended measures, including increased vegetation, would be subject to existing codes and regulations. Any increased vegetation would adhere to the requirements for landscaping outlined in the County’s applicable zoning ordinance (see, e.g., Non-Coastal Zoning Ordinance, § 8108.5.14), the County’s Encroachment Work Standards (see Section 12319 of the Ventura County Ordinance Code), and the Ventura County Fire Code (see Section 5111 of the Ventura County Ordinance Code, which incorporates by reference the Ventura County Fire Code, which is set forth in Ventura County Fire Protection District Ordinance No. 31, see Appendix W Fire Hazard Reduction and Vegetation Management), as applicable, at the time of implementation and would be enforced through conditions of approval and/or site planning.

The Ventura County Fire Protection District Ordinance No. 31 Code, Section W105.1 requires any person owning, leasing, controlling, operating or maintaining any building in, upon, or adjoining any Hazardous Fire Area, and any person owning, leasing or controlling any land adjacent to such buildings, shall maintain an effective firebreak made by removing and clearing away, all combustible material on their property for a distance not less than 100 feet from all portions of the building. Additionally, Section W105.1.5 prohibits mulch and wood chips within 5-feet of structures subject to Section W105.1. Section W105.1.7 requires any portion of a tree or shrub that extends within 10 feet horizontally or vertically of a chimney or stovepipe shall be removed in any Hazardous Fire Area, Section W105.1.7 requires any portion of a tree or shrub that extends within 10 feet horizontally or vertically of a chimney or stovepipe shall be removed in Hazardous Fire Areas. In addition, the 2040 General Plan includes a suite of policies and implementation programs that address a full spectrum of wildfire prevention standards for new development including vegetation management, fire suppression equipment, discouraging development in fire hazard areas, and education programs to prevent wildfires. It should be noted that wildlife corridors are subject to all existing fire prevention regulations of the Ventura County Fire Protection District.

Mitigation Measure NOI-1 is consistent with the CEQA Guidelines and would be implemented in compliance with all applicable codes and regulations with respect to wildfire risk.

- O32-41 The comment summarizes more detailed comments provided elsewhere in the comment letter. Refer to responses to comments O32-1 to O32-40, above, that address the specific comments identified in this letter. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.



The voice of business since 1949!

VCEDA's Mission Statement: To advocate for policies, legislation and programs that support business and a vital economy as the foundation for a vibrant quality of life in Ventura County.

Letter
O33

FEB 24 2020

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Ventura County Resource Management Agency, Planning Division
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 800 South Victoria Avenue, L#1740
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Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

On September 10, 2019, over the objection of the Ventura County Economic Development Association (VCEDA), your board voted 3-2 against taking a closer look at how new policies and programs proposed within the new General Plan will impact our regional economy and Ventura County residents. They voted to limit the economic analysis to only a handful of programs and solely on their impact to County departmental budgets – which is in no way a complete impact analysis.

In the months that have followed that decision, numerous additional policies and programs have found their way into the draft document – all proposed by members of the Board of Supervisors, and all without vetting through the advisory committees meant to provide oversight and input into revising the County's General Plan. As has been the case throughout this process, their impacts lack adequate study.

VCEDA had hoped that the draft General Plan's DEIR would address this lack of analysis. Unfortunately, that is not the case. Therefore, we respectfully request that the DEIR be re-circulated so that further study and analysis might take place to address the following comments:

3.0 Project Description

3-4 Proposed General Plan Organization

The DEIR explains that the GPU establishes 15 new land use designations, the DEIR states, without support or analysis, that these designations "would be consistent with land uses and densities/intensities allowed under the current (2018) zoning designations for each affected parcel." But what does this mean? That the existing zoning designations are at or below the densities and intensities allowed by the new GPU designations? Or that the new GPU designations would not permit any additional density or intensity than the existing zoning designations? These are two wholly different things and the project description is so vague that a reader cannot determine which is occurring.

O33-1

O33-2

O33-3

Relatedly, on page 3-5, the DEIR states that "minimum" lot sizes permitted in the zoning code will be maintained, but makes no mention of maximum lot sizes.

There are statements throughout the DEIR that allude to the GPU permitting "relatively higher intensity residential, commercial, mixed use, and industrial land uses within the Existing Community area designation and the Urban area designation" – yet nowhere in the Project Description is this expressly explained. How intense and dense? Where? What amount additional buildout will be accommodated?

O33-3
cont.

3-6 and 7 Land Use Planning and Growth Management

It is apparent that the County is seeking to look to its cities to accommodate growth. This approach will necessarily increase environmental impacts within the cities and no analysis of these reasonably foreseeable potential impacts is included in the DEIR.

O33-4

3-11 Housing Element

The use of the existing Housing Element as a "placeholder" is a significant flaw in the Amendment and DEIR analysis. The County is well aware that the increase in the RHNA allocation that is known to occur will significantly affect most of the other elements of the General Plan and the environmental analysis.

O33-5

Not only does the decision to exclude the pending housing element result in improper piecemealing (see comment above), inclusion of a "placeholder" element results in a meaningless, inaccurate, and incomplete Project Description.

3-19 Land Use Diagram

Project Description implies that the new General Plan designations will increase density and intensity, but provide no details as to where or by how much. The DEIR reads, "Under the 2040 General Plan relatively higher intensity residential [], commercial [], mixed use and industrial land use designations would apply to approximately 1.2 percent of land in the unincorporated county." How much higher? Where? Figures 3-2a and 3-2b are at such a large scale, it is impossible to tell where the designations are, let alone how they differ from what currently exists or in what locations additional density and intensity will be permitted. How much more development can occur as a result of these changes and what will be the potential impacts of this change? A reader has no way of knowing.

O33-6

4.0 Environmental Analysis

4-1 Approach to Environmental Analysis

CEQA does not permit an agency to bury required information, that forms the cornerstone of the analysis, in a 1,000+ page appendix. The DEIR says, "The reader is referred to the Background Report for all other setting information." Yet the BR is more than 1,000 pages long, not counting any appendices, and is not organized in a way that coincides with the chapters of the DEIR.

O33-7

Background Report 3-89 to 3-90 and 3-97

Improper segmentation. Concedes that the County cannot meet post 2020 housing growth needs and commercial growth needs (see also BR 3-134), concedes that “up-zoning” would be required to meet SCAG plan housing obligations. DEIR is devoid of any analysis regarding this apparent conflict. The “up-zoning” needs to be analyzed as part of this project and this analysis.

O33-8

As noted elsewhere, the underlying development potential methodology utilizes outdated (2014) RHNA numbers which effectively masks the disparity between “potential” and actual development that will take place through horizon 2040. (Burying the magnitude of land use impact)

4.11 Land Use and Planning

4.11 Thresholds of Significance

Failure to analyze internal inconsistency, or consistency between the updated GP and the existing Area Plans that are not amended. The DEIR states that Threshold 25(1) of the ISAG asks whether the project is consistent with the community character policies and development standards in the Ventura County General Plan goals, policies and programs, or applicable Area Plan. The DEIR goes on to explain that this threshold will not be considered in this DEIR because “this draft EIR is an evaluation of an update to the Ventura County General Plan goals, policies and programs, and Area Plans under which future projects would be evaluated.” However, failing to analyze this threshold means that there is no analysis of internal consistency. The Project Description chapter of the DEIR explains that very few changes are made to the Area Plans, therefore the Land Use & Planning chapter of the DEIR should consider whether the changes in the land use designations are consistent with all policies that are unchanged. See comment above regarding the Ventura Avenue Plan’s protection and expansion of oil field uses.

O33-9

4.11-3 Issues Not Discussed Further

Failure to analyze internal inconsistency, or consistency between the updated GP and the existing Area Plans that are not amended. Relatedly, regarding the unchanged Area Plans, the DEIR states, without support or analysis, that “[t]he Area Plan policies and implementation programs related to these issues are consistent with the 2040 General Plan policies and implementation programs, which are addressed in the following impact discussions. Therefore, the environmental effects of the Area Plan goals and policies are not addressed separately in this section.”

4.11-4 2040 General Plan Policies and Implementation Programs

Improper segmentation. Policy LU-1.3 states that the County will work with SCAG “to direct state regional housing needs allocations predominantly to cities...” What does this mean? The RHNA methodology is already available and estimates a significant number of new units to be accommodated within the unincorporated county. Further, cities are likely to push back on their significantly higher RHNA allocations, and push those units out to the County such that the final number will likely be even greater. For all these reasons, and the ones identified in our comments on the Project Description, the entirety of the GPU should be paused until the RHNA allocations are finalized.

O33-10

See also comments above regarding Background Report pp. 3-89 to 3-90, 3-97.

O33-10
cont.

4.11-18 Impact 4.11-1

Failure to analyze the land use impacts (and all other impacts) associated with the new land use designations. GP 2040 creates 13 new land use categories (or 15 – see below comment regarding inconsistency within the DEIR on the Project Description) with distinct development standards—yet there is no real analysis of how the installation of 13/15 new use classes that did not previously exist would not create a conflict with uses established pursuant to the previous 6 use classes under GP 2005. Notably, the DEIR concedes that the new land use classifications will result in development at a higher intensity in locations where residential, commercial, and industrial uses exist. Yet there is no explanation of how this intensification will be accomplished to avoid incompatibility. (As has been the case throughout the DEIR, Section 4.11 consists of a laundry list of LU policies, but, when it comes to explaining the role those policies play in avoiding or mitigating a potential impact (e.g. incompatible uses), the DEIR fails to provide that critical explanation/analysis)

O33-11

4.11-19 Impact 4.11.1

Vague and inconsistent project description. The analysis describes the GPU as establishing 13 new land use designations, but the Project Description says there are 15 (see page 2-6).

4.11-21 Impact 4.11-1

Vague and inconsistent project description – unsupported conclusions in the analysis regarding compatibility. The DEIR states that “Policies LU-4.1 and LU-4.2 would reduce incompatible land uses by specifying densities and/or intensities of allowed uses within each land use designation and maintaining continuity with neighboring zoning, land uses, and parcel sizes.” But neither of these policies do this, or specify densities or intensities in any way.

O33-12

4.11-22 Impact 4.11-3

DEIR cannot conclude that the GPU is consistent with the RHNA when the GPU includes only a “placeholder housing element” and improperly segments the Housing Element and accommodation of the RHNA from its Project Description and the analyses contained in the DEIR. The DEIR states that “Implementation of the 2040 General Plan policies and programs listed above, coordination of the RHNA with housing element updates, and compliance with applicable regulations would ensure that development under the 2040 General Plan is consistent with the RHNA.” This essentially argues that the GP is consistent with the RHNA because the County will change the GP in the very near future to accommodate the RHNA. This is nonsensical. For all the reasons provided in our comments on the Project Description, the RHNA, which is imminent and the County’s own estimate will be released while the DEIR is out for public review in the month of February, accommodating the RHNA may likely require changing the designations identified in the GPU and the analysis of the same provided in this DEIR. This is exactly why CEQA prohibits improper segmentation of related projects.

O33-13

4.14 Population and Housing

4.14-1 Regulatory Setting, Environmental Setting

DEIR excludes all relevant discussion regarding both regulatory setting and environmental setting, and instead forces a reader to find the information buried in the BR.

No discussion is provided regarding SB 330 (Housing Crisis Act of 2019).

O33-14

4.14-6 through 8, Impact 4.14-1

See piecemealing comments above. This impact addresses the County's ability to accommodate its imminent RHNA allocation. The discussion explains how "it is anticipated that the County will have to identify additional land that would meet state standards for lower-income inventory site requirements" and that "identifying sufficient sites for this next [RHNA] cycle will be a challenge."

But the draft RHNA numbers are already available, and per the DEIR's text, will be finalized while the DEIR is out for public review. The RHNA sites should be identified and considered as part of this DEIR. Knowing that land will be imminently re-designated in the near future, as part of the Housing Element Update, makes the analysis in the DEIR meaningless.

O33-15

6.0 Alternatives

6.6 Environmentally Superior Alternative

The Dense Cores Alternative is selected as the environmentally superior alternative. The analysis fails to consider whether this alternative is feasible given the land available for development in the Existing Community and Urban land use categories. It also fails to address the impacts on surrounding cities. Significant concentration of population and housing adjacent to existing cities has the potential to create significant effects in those cities. This is not considered.

O33-16

As noted in this letter's introduction, given the breath of impacts not studied, nor impacts with suggested mitigation measures, VCEDA respectfully requests a re-circulation and distribution of the DEIR in the hopes that additional analysis will address these deficiencies.

O33-17

You may contact me directly if you have questions specific to the comments listed above, or if you require a more detailed analysis.

Sincerely,



Sandy E. Smith
VCEDA Policy Chair

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|-----------------------|-------------------------------------------------------------------------------------------------------------------|
| Letter O33 | Ventura County Economic Development Association Sandy E. Smith, VCEDA Policy Chair February 27, 2020 |
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- O33-1 This comment is introductory in nature and provides background information related to the commenter’s concern regarding new economic policies and programs. The comment states that new policies and programs introduced within the 2040 General Plan lack adequate study. The comment does not identify specific policies and programs, nor does it raise a significant environmental issue for which a response is required. Therefore, an informed response cannot be provided.
- O33-2 The comment generally states that the draft EIR does not provide an economic analysis of the impacts of the proposed 2040 General Plan policies and programs. However, EIRs are not required to treat a project’s economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. This comment does not link or attempt to link economic impacts to any adverse physical changes to the environment not already addressed in the draft EIR.
- Regarding the comment that the draft EIR should be recirculated, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.
- O33-3 Refer to Master Response MR-2 for description of the 2040 General Plan land use designations, growth projections, and buildout assumptions.
- O33-4 The comment states that the County is looking to its cities to accommodate growth and that the draft EIR does not evaluate the impacts of growth within cities. In explaining the planning context in Section 3.2.2, “Relationship to Other Plans and Regulations,” of the draft EIR (page 3-7) the project description indicates that the “County is dedicated to directing urban development to cities and existing unincorporated communities to preserve its working and rural landscapes, agricultural lands, scenic vistas, natural resources, and recreational opportunities.” As explained further on page 3-8, this is in reference to the established Guidelines for Orderly Development that the County, cities within the county, and the Ventura Local Agency Formation Commission (adopted to direct urban-level development and services to the incorporated areas. The 2040 General Plan would not generate unplanned growth within the incorporated cities that would result in impacts that have not been evaluated in the draft EIR. The 2040 General Plan would accommodate future development within the unincorporated area; the physical environmental impacts of such growth are evaluated in the draft EIR.

- O33-5 Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update
- O33-6 For a discussion of the land use diagram and land use designations, refer to Master Response MR-2. By design, the 2040 General Plan does not result in an increase in the density or intensity allowed on any property. The excerpted text regarding “relatively higher density” has been taken out of context. For example, page 3-14 explains that “the land use diagram of the 2040 General Plan would concentrate future development of relatively higher intensity residential, commercial, mixed use, and industrial land uses within the Existing Community area designation (boundary) and the Urban area designation (boundary).” Therefore, density allowed within these area designations would be higher relative to the land use designations applied in the remainder of the unincorporated county under the 2040 General Plan – not relative to what is allowed under existing land use designations.
- O33-7 Refer to Master Response MR-6, which explains the County’s approach to utilizing the existing setting information in the Background Report.
- O33-8 Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update
- O33-9 The comment suggests that Section 4.11, “Land Use,” in the draft EIR should evaluate the 2040 General Plan and the Area Plans for “internal inconsistency.” See response to comment O5-74. An EIR is not required to analyze a project, in this case the 2040 General Plan, for internal consistency. Moreover, the 2040 General Plan is not internally inconsistent. As explained in Section 3.4, “Structure and Content of the General Plan,” the County assessed the goals, policies, and programs in the existing General Plan and the Area Plans as part of the 2040 General Plan update process (draft EIR page 3-10). There are nine Area Plans that are part of the 2040 General Plan. The goals, policies, and programs of an Area Plan are designed to supplement, not duplicate, the General Plan.

As explained in the draft EIR (page 3.10):

As part of the General Plan update process, the County assessed the goals, policies, and programs in the existing General Plan and the County Area Plans. Seven of the Area Plans (El Rio/Del Norte, Lake Sherwood/Hidden Valley, North Ventura Avenue, Oak Park, Ojai Valley, Piru, and Thousand Oaks) would be refined as part of the 2040 General Plan. These seven Area Plans were reviewed and assessed to compare the Area Plan goals, policies, and programs with 2040 General Plan goals, policies, and programs to ensure internal consistency. The proposed refinements typically take the form of applying a common writing style and order of presentation to each Area Plan while maintaining the original intent. A few policies are proposed for removal from individual Area Plans

and incorporation into one of the 2040 General Plan elements. This change would maintain the policy and broadened its coverage from a single Area Plan to the entire unincorporated county. All changes proposed in the 2040 General Plan are presented in a legislative format that tracks the changes made.

The remaining two Area Plans (Coastal and Saticoy) were not updated as part of the 2040 General Plan process.

The comment also asserts that the draft EIR does not support the statement that Area Plan policies and programs related to land use and planning issues are consistent with 2040 General Plan policies and programs and therefore Area Plan policies are not addressed separately. However, the comment does not provide any example of an Area Plan policy or program that should have been included in the draft EIR analysis of land use and planning impacts and why. No further response to this comment can be provided.

- O33-10 Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.
- O33-11 Refer to response to comment O5-79 for a discussion of the land use designations in the 2040 General Plan and the relationship to the existing designations. Also refer to Master Response MR-2.
- O33-12 Refer to Master Response MR-2 for information related to the land use plan and land use designations identified within the 2040 General Plan.
- O33-13 Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update
- O33-14 Refer to Master Response MR-6, which explains the County’s approach to utilizing the existing setting information in the Background Report. The draft EIR (on page 4.14-1) refers readers to the specific sections of the Background Report (i.e., Chapter 2, “Demographics and Economics,” and Chapter 5, “Housing”) where the regulatory setting for population and housing can be found. Also, refer to response to comment O5-98 for a discussion of Senate Bill 330.
- O33-15 Refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.
- O33-16 The comment states that the analysis of Alternative 3 does not address the feasibility of this alternative nor its potential impacts on surrounding cities. Regarding feasibility, as explained in the draft EIR (page 6-2), an EIR must contain discussion of potentially feasible alternatives, and the ultimate

determination as to whether an alternative is feasible or infeasible will be made by the County Board of Supervisors (Pub. Res. Code, §§ 21081.5 and 21081(a)(3)). State CEQA Guidelines Section 15126.6(c) provide that the range of potential alternatives for the project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. As described in Section 6.5.3 (page 6-18), Alternative 3 would avoid or lessen significant impacts of the 2040 General Plan and would meet all of its project objectives.

The evaluation of Alternative 3, on pages 6-18 through 6-19 of the draft EIR, describes the potential impacts to existing communities and developed areas of the county. As described on page 6-18 of the draft EIR, effects associated with implementation of Alternative 3 could include increases in infill development, displacement of housing, and short- and long-term air quality and noise impacts in existing community and urban areas. Further, implementation of Alternative 3 would result in concentrated urbanization such that changes in the character of existing developed areas occur. In addition to possible effects previously described, Alternative 3 would be more likely to expose new and existing sensitive uses to unacceptable levels of traffic noise and could result in impacts to existing public facilities and infrastructure. The analysis of Alternative 3 correctly focuses on providing analysis of the significant environmental impacts of Alternative 3 to facilitate meaningful evaluation and comparison with the impacts of the 2040 General Plan (CEQA Guidelines, § 15126.6(d)). Thus, the potential impacts of Alternative 3 are appropriately analyzed in the draft EIR.

O33-17 Specific comments regarding the adequacy of the draft EIR are addressed in the responses to comments throughout this letter. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.



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| <p>Letter O34</p> |
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February 25, 2020

Susan Curtis, Manager, General Plan Section Update
 Ventura County Resource Management Agency, Planning Division
 800 S. Victoria Ave., L #1740
 Ventura, California 93009

via email: GeneralPlanUpdate@ventura.org

Re: General Plan Update Draft Environmental Impact Report Public Comments

Dear Ms. Curtis,

The Ventura County Taxpayers' Association (VCTA) is a non-partisan 501(c)(4) organization emphasizing issues that affect Ventura County. We inform taxpayers, promote the wise use of public funds, oppose waste, advise public officials regarding issues of concern to taxpayers and recommend positions that will best serve the taxpayers' interests.

034-1

Economic Vitality is a critical component of the County's future. Throughout the entire stakeholder process, Economic Vitality has been a crucial element in the General Plan process. It must be considered under every policy. In Section 3.2.1 Alternatives Report, Vision Statement and Guiding Principles, Economic Vitality is the second principle in the Vision Statement.

With this in mind, it is concerning that there is no real economic impact analysis included in the Draft Environmental Impact Report (DEIR) document. Many of these new policies and programs contain language that mandates the County spend local tax dollars. To compound this, several new policies and programs will likely have a negative impact on Ventura County's tax revenue and jobs and will result in increased costs to county residents. Creating policies without an understanding of how taxpayers will be affected is not only irresponsible, it is a bad faith gesture to taxpayers. It is imperative that the County conduct an economic impact analysis and incorporate it into the DEIR.

034-2

This ECONOMIC IMPACT ANALYSIS must include a breakdown of the fiscal implications of each policy and program on:

- Local TAX REVENUE as it relates to public safety, social services and education
- Direct and indirect JOBS
- OUT OF POCKET living expenses to Ventura County residents

All of the proposals in the General Plan document have major implications for taxpayers and I urge the Board to keep working people in mind as we look to our future.

David Grau
 President, Ventura County Taxpayers Association

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| Letter O34 | Ventura County Taxpayers Association David Grau, President February 25, 2020 |
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- O34-1 The description and role the commenting organization is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- O34-2 The comment states that the draft EIR does not include an economic impact analysis. However, EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR.



Ventura County Transportation Commission

Letter
O35

February 27, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Avenue, L #1740
Ventura, California 93009-1740

Subject: Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan

Dear Ms. Curtis,

Thank you for the opportunity to review and comment on the County of Ventura Draft 2040 General Plan and Environmental Impact Report (EIR), dated January 2020. Ventura County Transportation Commission (VCTC) acknowledges the County of Ventura for your efforts to improve circulation and mobility in Ventura County through the General Plan Update.

O35-1

VCTC acknowledges the Draft 2040 General Plan and EIR for the many goals, policies, and programs that seek to address vehicle miles traveled (VMT) through sound planning, investments in complete streets and active transportation, and support for safe and efficient roadway and multimodal transportation system improvements. In particular, Goal CTM-2 (Integrated Multimodal Transportation System) and its corresponding policies incorporate State and regional transportation planning priorities such as safe routes to school and transportation system connectivity. Goal CTM-3 (Bicycle Network) and its policies also help to meet regional and countywide goals to establish an accessible and interconnected bicycle network, informed by the VCTC Wayfinding Study. Goal CTM-4 provides for additional measures to reduce VMT through support for alternative transportation, increased vehicle occupancy, and use of public transit.

O35-2

With regards to Policies CTM-1.11 (Safe and Efficient Goods Movement) and CTM-1.12 (Surface Transportation Assistance Act Planning), VCTC respectfully requests the addition of VCTC as a coordinating agency along with Caltrans and the cities. With support from Caltrans, the Southern California Association of Governments (SCAG), and the Port of Hueneme, VCTC currently has a Freight Corridor Study underway to improve safety and efficiency of goods movement across the County.

O35-3

VCTC staff have reviewed Section 4.16 (Transportation and Traffic) of the Draft EIR and found the methodology, analysis, and thresholds of significance with respect to VMT to reasonably conform to the recommended standards established by the Governor's Office of Planning and Research. However, the EIR could better explain why multiple data sources were used and the process for selection of those various data sets used to calculate VMT. Replication of the VMT calculation methodology presented in the EIR may be complicated at the project level given the large number of data sources.

Ventura County Resource Management Agency, Planning Division
February 27, 2020
Page Two

VCTC continues to research and consider our role as the regional transportation planning agency in implementation of Senate Bill 743 and support for our member jurisdictions. Given the Draft General Plan and EIR reliance on VCTC's Ventura County Transportation Model (VCTM) to calculate baseline and future VMT, we respectfully request that the County of Ventura coordinate with VCTC as the County develops its process for project-level impact analysis to determine whether and how the VCTM would be used. The EIR does not specify a process or methodology for VCTM use for project-level analysis. The level of model use has the potential to affect the demand for and requirements of VCTC resources.

Despite the aforementioned efforts to reduce the environmental impact of transportation and traffic contained in the 2040 General Plan, the Draft EIR identifies significant and unavoidable environmental impacts associated with VMT and County roadway standards and safety. These identified impacts reflect the importance of countywide and regional planning efforts and investments to facilitate safe, efficient, multimodal, and alternative transportation options across Ventura County and Southern California. The Draft 2040 General Plan recognizes this need in Goal CTM-7 (Funding for Transportation Facility and Service Needs) and policies to support local, State and Federal funding for transportation.


The County of Ventura has further opportunities to address these impacts by linking housing and transportation through the forthcoming update to the General Plan Housing Element and by collaborating with the cities to create and maintain vibrant, desirable places to live, work, and play, reflected in the 2040 General Plan Vision and Guiding Principles and in alignment with the SCAG Regional Transportation Plan / Sustainable Communities Strategy.

Should you have any questions concerning this review, please contact me at (805) 642-1591 (ext. 103) or by email at: afagan@goventura.org.

O35-4

O35-5

Sincerely,



Amanda Fagan
Director of Planning and Policy

| | |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------|
| Letter O35 | Ventura County Transportation Commission Amanda Fagan, Director of Planning and Policy February 27, 2020 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------|

O35-1 The information summarizing the proposed 2040 General Plan goals, policies, and programs is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

O35-2 The comment provides suggested edits to policies proposed in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

O35-3 In addition to the Ventura County Transportation Commission (VCTC) countywide travel model, the analysis performed as part of this draft EIR used multiple data sources including the Highway Performance Monitoring System boundary-based vehicle miles traveled (VMT), Longitudinal Employment and Housing Dynamic data, and model output from the Santa Barbara Association of Governments regional travel demand model. These data sets were used to ensure that the full length of trips that either start or end in Ventura County was fully addressed. These data sets support development of full trip-length greenhouse gas (GHG) on-road mobile source emission estimates under baseline and future year conditions as part of the draft EIR in accordance with state guidance.

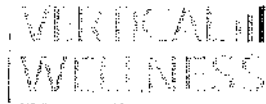
The procedures described in the draft EIR for addressing the requirements of Senate Bill (743 were developed specifically for this draft EIR and are not intended to apply to subsequent discretionary development reviews. The latter will be addressed through the updated Initial Study Assessment Guidelines described in Implementation Program CTM-B. It is anticipated that the County will work closely with VCTC in developing a process for project-level impact analysis as part of Implementation Program CTM-B.

O35-4 Refer to response to comment O35-3 regarding transportation modelling and continued coordination with VCTC.

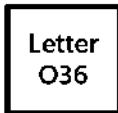
The comment also addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

Relative to the comment concerning the future update of the Housing Element, the County will coordinate with VCTC as part of the Housing Element update process, which is on a separate timeline from the 2040 General Plan update based on State requirements for update timing which covers the planning period from 2021 through 2029.

O35-5 The comment provides the preferred contact for the organization. The County has noted the information appropriately for future reference.



Unleashing Nature's Potential



Friday, February 21, 2020.

RMA Planning Division
 800 Victoria Avenue, L #1740
 Ventura CA 93009-1740

RE: Flawed General Plan Environmental Impact Report (EIR)

To Whom It May Concern:

Vertical Wellness, a California-based farming operation, would like to formally submit our position that as written, the 2040 General Plan Environmental Impact Report (EIR) was a rushed job that is severely flawed and inadequate, and must be corrected and recirculated to protect a fair and compliant planning process for Ventura County.

O36-1

There are several issues with the General Plan that Vertical Wellness believes severely and negatively impacts the welfare of local agriculture here in Ventura County, including our own operations.

The California Environmental Quality Control Act (CEQA) requires that all proposed mitigation be technically and economically feasible. **The EIR does not meet this standard.** For example, AG-2 proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. The county has not conducted any sort of feasibility report, which if conducted, would likely show that this standard is unrealistic in terms of economic feasibility for farmers. Furthermore, there are no details on how the county will implement or monitor this program, especially taking into account they are not the local experts in agriculture. You can be certain, however, that if this mitigation measure is put into effect, Vertical Wellness will likely find it economically infeasible to operate in Ventura County.

O36-2

CEQA also requires that the mitigation not make the impacts worse. **The EIR does not meet this standard.** For example, shortage of farm worker housing was identified as one of the biggest issues facing ag in Ventura County. However, farm operators like Vertical Wellness will have no incentive to build more farm housing and alleviate the shortage if we are forced to purchase considerable additional land for preservation on top of the house building costs. You are essentially punishing responsible operators who are trying in good faith to help mitigate the problem.

CEQA requires that the EIR contain enough detailed information to allow the reader to understand and evaluate the County's impact analysis. **The EIR does not meet this standard.** The EIR and accompanying background report are filled with errors, vague statements, outdated information and conflicting ideas. As written, Vertical Wellness would be utterly lost and confused with how to comply with issues that should be clear to follow like water supply for irrigation.

O36-3

Most recently, Vertical Wellness has been dealing with the financial loss associated with the new Hemp Ordinance that impedes our ability to grow Hemp this upcoming season. The County's own Right to Farm Ordinance has carried absolutely no weight with the County. Instead, it has been completely dismissed. Thus, the County's assumption in the EIR that the Right to Farm Ordinance would reduce impacts to Ag to "less than significant" and will suddenly prevent the County from creating or expanding more setbacks and operational restrictions on agriculture is completely unsupported. In light of the current actions of the County and the Board of Supervisors to place severe set-backs on hemp cultivation and create economic injury to farmers, for the EIR to assert that the County will utilize the Right to Farm Ordinance to protect agricultural operations from nuisance complaints is misguided and inappropriate, at best. All analysis flowing from the County's erroneous assumption are flawed. The analysis of impacts to Ag from nuisance complaints must be corrected and the EIR recirculated.

O36-4

The EIR is a flawed document that has failed to achieve its primary purpose. In no way is it a tool of disclosure of all impacts caused by the 2040 General Plan. Vertical Wellness urges the County to take the time to correct and re-circulate the EIR instead of continuing to shortcut the process to the detriment of the community members.

O36-5

Thank you,



Elyse Kaplan
Corporate Counsel

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| <p>Letter O36</p> | <p>Vertical Wellness Elyse Kaplan, Corporate Counsel February 21, 2020</p> |
|------------------------------|-------------------------------------------------------------------------------------------|

O36-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

This comment also expresses disapproval of the 2040 General Plan, which is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

- O36-2 The comment states that the draft EIR does not meet the California Environmental Quality Act (CEQA) standards that mitigation must be technically and economically feasible. Refer to Master Response MR-5 for a discussion of the feasibility of Mitigation Measure AG-2.
- Further, the comment incorrectly states that CEQA prohibits a mitigation measure from causing or exacerbating an environmental impact. To clarify, while CEQA requires identification of feasible measures that could minimize significant adverse impacts, there is no blanket requirement in CEQA that mitigation not make impacts worse or result in its own impacts. To the contrary, CEQA contemplates and addresses a scenario in which a mitigation measure itself may result in a significant impact (State CEQA Guidelines, §15126.4(a)(1)(D)) and requires that the EIR describe the environmental impacts associated with the mitigation, which was appropriately considered in the draft EIR. The comment also expresses concern about the shortage of farmworker housing and impacts of implementing Mitigation Measure AG-2 related to incentives to build more farmworker housing. Refer to Master Response MR-5 for discussion of applicability of Mitigation Measure AG-2 to farmworker housing.
- O36-3 Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR. The comment regarding the general adequacy of the draft EIR and Background Report is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR and Background Report are raised in this comment. Therefore, no further response is provided. Water supply is addressed in the draft EIR in Section 4.17, "Utilities," and in the Background Report in Chapter 10, "Water Resources."
- O36-4 The comment states that the County's assumption that the Right-to-Farm Ordinance would reduce agriculture impacts to less-than-significant and would prevent the County from creating or expanding more setbacks and operational restrictions on agriculture is unsupported. Refer to responses to comments A13-8 and O32-22 for a discussion of this issue. For the reasons provided in these referenced responses, the impact conclusion for Impact 4.2-2 (Result in Classified Farmland Near Any Nonagricultural Land Use or Project) in the draft EIR is supported by substantial evidence and no revisions are warranted. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.
- O36-5 Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.



Letter
O37

Ben Oakley
California Coastal Region Manager

February 27, 2020

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, California 93009

via email: GeneralPlanUpdate@ventura.org

Re: General Plan Update Draft Environmental Impact Report Comments

Dear Ms. Curtis,

The Western States Petroleum Association (WSPA) is a non-profit trade association that represents companies, including oil and gas producers in Ventura County, that account for the bulk of petroleum exploration, production, refining, transportation and marketing in the five western states of Arizona, California, Nevada, Oregon, and Washington. WSPA is dedicated to ensuring that Americans continue to have reliable access to petroleum products through policies that are socially, economically, and environmentally responsible. We deliver reliable and safe products that sustain our way of life and drive economic opportunity.

O37-1

WSPA appreciates this opportunity to continue our engagement in the Ventura County General Plan Update (GPU) process in support of policies that will create the most sustainable energy future for our community, region, and nation. To that end, we have reviewed the GPU Draft Environmental Impact Report (DEIR) and have the following comments:

GENERAL COMMENTS

WSPA is concerned about the adequacy of the DEIR to properly inform the public, responsible officials, and governmental agencies of the potential environmental impacts of the Ventura County GPU. According to case law, the EIR is at "the heart of the California Environmental Quality Act" (CEQA) (*County of Inyo v. Yorty*, 32 Cal.App.3d 795 (California Court of Appeal for the Third District 1973-06-05)). Preparation of an adequate EIR is necessary "not only to protect the environment but also to demonstrate to the public that it is being protected." (CEQA Guidelines § 15003(b)).

O37-2

The DEIR fails to serve this essential purpose because:

- The Project Description is vague, unclear, and lacks any meaningful details
- The alternatives analysis is fundamentally flawed and misleading.
- Various identified General Plan policies are infeasible or preempted.
- The summary description of "areas of known controversy" is biased.

Ventura County Resource Management Agency
 February 27, 2020
 Page | 2

- The DEIR identifies climate change as a “key area of concern” but makes a fundamentally flawed and misleading GHG emissions forecast which serves as the primary driver for various associated policies.
- Information that forms the cornerstone of the various analyses is missing and/or buried in a 1,000+ page appendix.
- The DEIR fails to fully analyze the environmental impacts of various proposed policies and/or is unclear what assumptions are being applied in the environmental analyses.
- The DEIR uses prejudicial language and features a pervasive bias against Ventura County oil and gas producers throughout but offers scant or misleading evidence to justify this position.
- The DEIR features targets and policies that are not based on substantial evidence and violate CEQA case law.
- Preparation of a Final EIR without incorporating the February 2020 release of Regional Housing Needs Assessment (RHNA) requirements will result in improper piecemealing and project segmentation.
- Several proposed policies amount to unconstitutional property rights violations.

O37-2
cont.

The correction of these and other deficiencies discussed below will result in “significant new information” being added to the EIR and will require recirculation (CEQA Guidelines § 15088.5) because numerous sections of the DEIR are so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

Please see below for specific comments on the various DEIR sections in support of our general comments:

INTRODUCTION

1. **Areas of Known Controversy (page 1-4) – Biased description of “areas of known controversy.”**
 The DEIR states that the key areas of concern identified during the Notice of Preparation (NOP) process “focused on two primary areas of concern: (1) climate change and greenhouse gases; and (2) the effects of continued oil and gas extraction...” But of the comments included in Appendix A, less than half focused on these issues exclusively. The summary also ignores comments regarding property rights, density, air quality, cultural, hydrology, and hazards which were also brought up in just as many letters as issues relating to oil and gas. Because the “areas of known controversy” section informs and drives the policies and narrative in every subsection of the DEIR, this bias permeates the entire document as will be discussed further below.

O37-3

EXECUTIVE SUMMARY

2. **Growth Projections (page 2-11) – The conservative growth projections presented in Table 2-3 will be at odds with the pending RHNA allocations** and as a result much of the amendment will be out of date in October when the final allocations are made. Please see Comment 4 below for further discussion on this topic.

O37-4

PROJECT DESCRIPTION

3. **Guiding Principles (page 3-4): Protecting the economic vitality of Ventura County is**

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paramount. “Economic vitality” is the second principle referenced in the Vision Statement after quality of life. All proposed policies should be reviewed carefully with regards to the potential negative impact on Economic Vitality to ensure this core principle is not threatened.

O37-5
 cont.

In support of this principle, the Background Report should accurately reflect the positive economic value the oil and gas industry has on Ventura County through accurate employment statistics as well as an expanded review of its economic contributions.

On page 8-80, the Background Report states, “According to the U.S. Census Bureau, there were 431 employees working in Ventura County for the oil and gas extraction establishment in 2014.” The number of employees in the sector was presumably determined by searching the U.S. Census Bureau database by county and by the following North American Industry Classification System (NAICS) codes:

- 2111 – Oil and Gas Extraction
- 211120 – Crude Petroleum Extraction
- 211130 – Natural Gas Extraction

However, such a method will result in a dramatic underestimate of oil and gas sector employment. A more recent and publicly available study titled “Economic and Tax Revenue Impacts of Oil Production in Ventura County” prepared by Capital Matrix Consulting in late 2017 (see Attachment 1) indicates the Ventura County oil and gas industry:

O37-6

- Has 900 workers directly employed
 - Direct and indirect employment is expected to be between 2,100 and 3,000 by 2023
- Provided \$760 million in economic output in 2018
- Provided \$56 million in state and local taxes, of which:
 - \$21 million goes to local jurisdictions within Ventura County supporting schools, and public safety agencies.

The Background Report should be revised to more accurately reflect the significant positive economic impact the oil and gas industry has in Ventura County, and pursuant to CEQA Guidelines § 15131(c), this information should help guide the lead agency’s determination whether policies proposed in the GPU are “feasible.”

4. Housing Element (page 3-7) – Preparing an EIR for the GPU before the Housing Element is completed results in improper piecemealing and project segmentation: The DEIR states that draft RHNA numbers will be released in February 2020, which is during the public review period for the DEIR. Accommodation of the County’s RHNA could lead to the re-designation of one or several parcels within the County, or the revision/deletion/addition of general plan goals and policies. Therefore, it should be considered as part of this project and analyzed in this DEIR.

O37-7

Yet the DEIR explains that the RHNA component of the project will be addressed as part of the Housing Element that will occur subsequent to the adoption of the 2040 General Plan. In fact, on page 3-6, the DEIR even expressly explains that the GPU and the RHNA/Housing Element (HE) are two parts of the same land use “alternative” identified through the community

outreach for this GPU. Separating the GPU from the RHNA/HE results in an incomplete and inaccurate project description. Had the GPU and the RHNA/HE been analyzed together, the analysis might show that certain aspects of the GPU are infeasible or will have greater impacts than are described in this DEIR. Excluding half of the project from analysis in this DEIR is a both a procedural and a substantive error (*Bozung v. Local Agency Formation Commission* (1975) 13 Cal. 3d 263).

O37-7
 cont.

- 5. General Plan Elements (page 3-10 through 3-12) – Project Description lacks any meaningful details:** The “brief summary” provided for each element of the 2040 General Plan, which should provide the basis for the analysis in each DEIR analysis, is completely generic. The descriptions in no way inform a reader of what each element does, or the types of goals, policies, and programs that are established in each. Further there is no summary of what, if anything, is changing in each element, when compared to the existing General Plan. Without this detail, the project description is essentially meaningless.

Even without detailing every single policy included in the GPU, the Project Description should at the very least identify policy highlights and ordinances that the GPU directs the County to draft and adopt, and describe the type and extent of physical development to be constructed under the GPU pursuant to CEQA Guidelines § 15124. Here, there is not even a basic table showing potential buildout (acreages, units, square footage, etc. associated with each designation and/or geographical area) or comparing existing against projected development.

O37-8

Further, there is no mention of the County’s Local Coastal Program (LCP), and whether there will be revisions to the LCP.

ENVIRONMENTAL IMPACT ANALYSIS

- 6. Approach to Environmental Analysis (page 4-1) – CEQA does not permit an agency to bury required information, that forms the cornerstone of the analysis, in a 1,000+ page appendix:** The DEIR states, “The reader is referred to the Background Report for all other setting information.” Yet the BR is more than 1,000 pages long, not counting any appendices, and is not organized in a way that coincides with the chapters of the DEIR (CEQA Guidelines § 15147).

O37-9

- 7. Approach to Environmental Analysis (page 4-2) – Unclear what assumptions are being applied in the environmental analyses:** The DEIR states that analysis “is based on buildout of the plan area” but nowhere in the Project Description does it actually identify what buildout would be. The DEIR goes on to say that this is the basis of the analysis “even though buildout is not anticipated to occur within the planning horizon.” So, what is anticipated to occur within the planning horizon? These are key pieces of information that must be disclosed—without doing so a reader has no way to consider whether the environmental analysis conclusions are reasonable.

O37-10

AGRICULTURE AND FORESTRY RESOURCES

- 8. Implementation Program AG-X (page 4.2-7):** The DEIR should include a feasibility study on Implementation Program AG-X: Establish an Agricultural Conservation Easement. The proposed program begs several unanswered questions: Are there landowners willing to serve as

O37-11

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Agriculture Conservation Easement “banks”? If the 2040 General Plan is implemented as currently written, how many acres of agricultural lands would need to be offset? What is the projected price per acre given the anticipated supply and demand?

O37-11
 cont.

The potential impacts of Implementation Program AG-X: Establish an Agricultural Conservation Easement must be analyzed in Section 4.14 Population and Housing since the program will impact the affordability of the housing supply.

AIR QUALITY

- 9. **General Plan Policies and Implementation Programs (page 4.3-8) – Several identified General Plan policies are infeasible or preempted:** The air quality analysis seems to rely upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include policies COS-7.1, 7.3, 7.4, 7.7, and 7.8. Taking credit for policies that are more than likely to be either struck down or that are simply infeasible (CEQA Guidelines § 15126.4(a)(1)) results in an erroneous analysis, not based upon substantial evidence.

O37-12

ENERGY

- 10. **Environmental Setting (page 4.6-4) – The environmental setting/environmental baseline narrative is inadequate:** The background report and the DEIR environmental setting do not present a clear, informative picture of what is going on in terms of energy consumption, energy mix and energy efficiency in the County happening now under the current general plan as required pursuant to CEQA Guidelines § 15125. As such it is impossible to judge whether implementation of the 2040 GP will have a beneficial, adverse or neutral impact on energy resources. Also, as previously specified in Comment 6 above, the DEIR should contain all relevant information necessary to inform the public. The agency may not simply refer the reader to a 1,000+ page appendix.

O37-13

GEOLOGIC HAZARDS

- 11. **Policy HAZ-4.1 (page 4.7-3):** Policy HAZ-4.1 conflicts with Policy COS-7.7 Policy HAZ-4.1 should be included in Minerals and Petroleum Resources section impact analysis since it has the potential to “result in the loss of availability of a known petroleum resource that would be of value to the region and residents of the State.”
- 12. **Policy HAZ-4.15 (page 4.7-4):** Given the long history of oil and gas production in Ventura County, subsidence evaluation should be limited to those areas with known subsidence issues. Policy HAZ-4.15 should be included in Minerals and Petroleum Resources section impact analysis since it has the “potential to result in the loss of availability of a known petroleum resource that would be of value to the region and residents of the State.”
- 13. **Policy P-60.2 (page 4.7-5):** “Cost effective” is a subjective standard, this policy could potentially be over-applied to limit any proposed development. Policy P-60.2 should be included in Minerals and Petroleum Resources section impact analysis since it has the “potential to result in the loss of availability of a known petroleum resource that would be of value to the region and

O37-14

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residents of the State.”

O37-14
 cont.

GREENHOUSE GAS EMISSIONS

14. Projections (page 4.8-5): The DEIR should include a narrative explaining the assumptions and methods used for forecasting emissions for each sector included in Table 4.8-2. The reader must reference both Appendix D – GHG Calculations and General Plan Appendix B: Climate Change in order to infer what assumptions were made. Please see Comment 6 for further discussion on the need to have information that forms the cornerstone of the analysis in the DEIR and not in multiple appendices.

O37-15

15. Projections (page 4.8-5): According to General Plan Appendix B: Climate Change, GHG emissions from the Stationary Source sector (i.e., oil and gas industry) were estimated “by scaling the statewide emissions reported for oil and gas production to the local level using the proportion of oil and gas production in the unincorporated area relative to the statewide total.” This method overestimates GHG emissions from Ventura County because it ignores the Carbon Intensity (CI) values of crude oil available for every source of crude oil supplied to California refineries pursuant to CARB’s Low Carbon Fuel Standard (LCFS) program (<https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/crude-oil.htm>).

O37-16

Carbon intensity varies depending on a variety of factors including production methods, field properties, fluid properties, production practices, processing practices, land use impacts, and crude oil transport, to name a few. Generally speaking, Ventura County crude oil has low CI values relative to crude oil produced in other California oilfields and global oilfields from which California imports most of the crude oil the state consumes (https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/2018_crude_average_ci_value_final.pdf).

The DEIR should account for relative CI of crude oil when estimating GHG emissions from the oil and gas sector. Please see Comment 19 for further information on relative CI of Ventura County crude oil.

16. Projections (page 4.8-5): The DEIR presents a fundamentally flawed and misleading GHG emissions forecast which serves as the primary driver for related policies targeting the oil and gas industry. As discussed in Comment 15 above, emissions from the Stationary Source sector (i.e., oil and gas industry) were estimated “by scaling the statewide emissions reported for oil and gas production to the local level using the proportion of oil and gas production in the unincorporated area relative to the statewide total.” In other words, the forecast emissions are directly proportional to the oil production forecast; the higher the forecast production, the higher the forecast emissions.

O37-17

However, the “Oil and Gas Production Forecast” found in Appendix D – GHG Calculations inexplicably models increasing production through 2050, from 8.43 million barrels in 2015 to nearly 9.5 million barrels in 2050. Such a production forecast flies in the face of the historic Ventura County oil production data (see Figure 1 – Historic Ventura County Oil Production Trend, source: https://www.conservation.ca.gov/calgem/pubs_stats/annual_reports/Pages/annual_reports.aspx; also see Attachment 2 – Historic Ventura County Production Data 1980 to Present).

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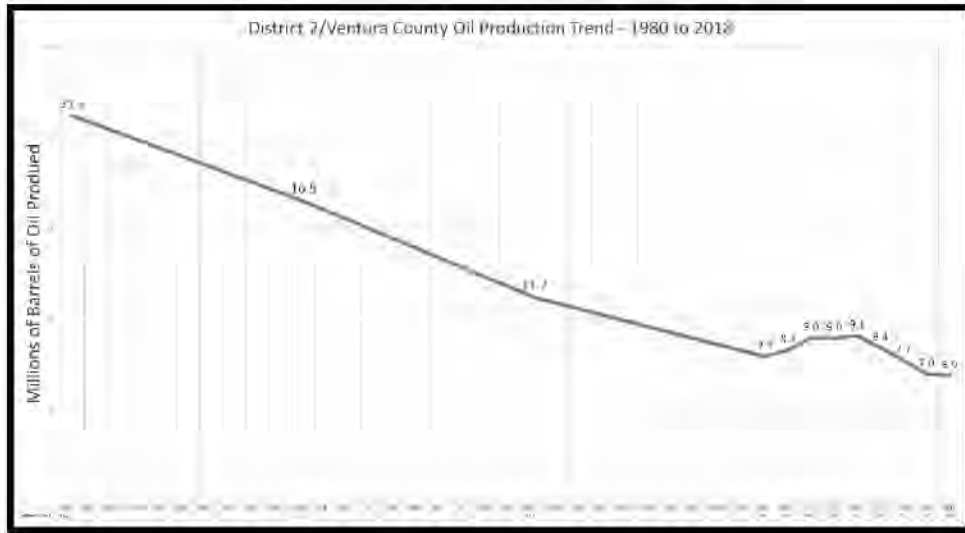


Figure 1 - Historic Ventura County Oil Production Trend

The actual data indicate a steady decline in production looking back 35 years from 2015, which mirrors the forward-looking timeline in the Oil and Gas Production Forecast. This long-term historic trend is recognized in the GPU Background Report section on Petroleum Reserves (page 8-74):

*“In 2015, oil production in Ventura County reached 9,131,781 barrels. This level of production represents a **42 percent decrease in production from 1987 levels**” (emphasis added).*

The Oil and Gas Production Forecast also ignores the latest actual data available from 2015 through 2018, which further reinforce the historic decline trend. Based on the latest production data available in 2018, the DEIR is already on track to overestimate 2020 production by nearly 2 million barrels per year, or roughly 63,000 MT CO₂e assuming 0.0326 MT CO₂e/barrel produced, the ratio utilized in the DEIR calculations for 2015:

$$\text{Scaled Emissions (275,096 MT CO}_2\text{e)} / \text{Ventura County Oil Production (8,428,402 barrels)} \\ = 0.0326 \text{ MT CO}_2\text{e/Barrel}$$

The Stationary Source emission forecast presented in Table 4.8-2 (see Figure 2 below) is not based upon substantial evidence and is inconsistent with the long-term historic trends.

A more realistic Stationary Source emission forecast would be consistent with the long-term decline trend of oil and gas production in the county and would be consistent with every other

O37-17
 cont.

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Sector forecast in Table 4.8-2, which are projected to either remain flat or decrease between 12% and 36% by 2050. Such a realistic forecast would support a balanced approach to encouraging further GHG emission reductions across all sectors of the County.

| Sector | Forecast Emissions ¹ (MT CO ₂ e) | | | |
|----------------------|--------------------------------------------------------|-----------|-----------|-----------|
| | 2020 | 2030 | 2040 | 2050 |
| Agriculture | 250,223 | 248,882 | 241,511 | 234,200 |
| Building Energy | 308,629 | 285,079 | 225,587 | 197,596 |
| Off Road Equipment | 52 | 52 | 52 | 52 |
| Solid Waste | 302,811 | 278,381 | 270,280 | 262,560 |
| Stationary Sources | 287,845 | 314,526 | 443,879 | 375,535 |
| Transportation | 825,263 | 487,058 | 116,355 | 450,232 |
| Water and Wastewater | 13,148 | 13,148 | 13,148 | 13,148 |
| Total | 1,793,971 | 1,627,124 | 1,540,830 | 1,533,723 |

Notes: MT CO₂e = metric tons of carbon dioxide equivalents, comprised of carbon dioxide, methane, and nitrous oxides. ¹Includes legislative reductions from State and federal programs.
 Source: Ascent Environmental, 2014

12% Decrease
 36% Decrease
 No change
 13% Decrease
 30% Increase
 28% Decrease
 No change

O37-17
 cont.

Figure 2 – DEIR Table 4.8-2 Forecast GHG Emissions 2020 to 2050

Instead, the DEIR incorrectly singles out the oil and gas industry as the only sector expected to see increasing GHG emissions through 2050 by a whopping 30%. This glaring disparity in forecast emissions from the oil and gas industry forms the basis for the various GHG reduction policies that aggressively target Ventura County’s oil and gas industry including COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax.

In preparing the Forecast GHG Emissions for Unincorporated Ventura County, the County did not “use its best efforts to find out and disclose all that it reasonably can” in accordance with CEQA Guidelines § 15144 on forecasting since it didn’t even consider data that the County itself had compiled in the Background Report or oil production information available at the same source the County used to collect the 2015 baseline data.

The Forecast GHG Emissions for Unincorporated Ventura County must be revised to appropriately reflect the long term trend of declining emissions in the oil and gas sector, and policies that target the oil and gas industry based on the false premise of increasing GHG emissions in the sector must be removed from consideration in the EIR.

This revision alone constitutes “significant new information” that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5 considering climate change and greenhouse gases were identified by the DEIR as “key areas of concern” in the Areas of Known Controversy section (page 1-4). The GHG section of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*, (1989) 214 Cal.App.3d 1043).

O37-18

17. Targets (page 4.8-6) – DEIR targets are not based on substantial evidence and violate CEQA case law: The DEIR explains that the Climate Action Plan (CAP) developed as part of the General

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Plan applies the same targets to Ventura County as the State has adopted for all of California. This approach wholly ignores regional differences, which is an approach to local CAPs that courts have struck down in myriad cases. Courts have explained that local reduction goals cannot be based on statewide metrics and instead must explain why applying statewide data and reduction targets is appropriate for setting the metrics in the local region (here, Ventura County). (*Center for Biological Diversity v. Cal. Dept. of Fish & Wildlife ("Newhall Ranch")* (2015) 62 Cal.4th 204). Here, there is absolutely no substantial evidence supporting the application of the 40% and 80% statewide targets to Ventura County.

O37-19
cont.

18. General Plan Policies and Implementation Programs (page 4.8-11 through 4.8-37) – Several identified General Plan policies are infeasible or preempted: The GHG analysis relies upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include policies COS-7.2, 7.4, and 7.7, and implementation program M (oil and gas operations tax). Taking credit for policies that are more than likely to be either struck down or that are simply infeasible results in an erroneous analysis, not based upon substantial evidence.

O37-20

19. Policy COS-7.2 (page 4.8-23) – The DEIR assumes Policy COS-7.2 will result in lower GHG emissions but provides no evidence to justify this assumption: In section 4.12, the DEIR comes to the correct conclusion that as a result of the proposed policies “the demand for California-produced oil and gas would be satisfied through the importation of additional oil and gas from other countries and Alaska, which in turn could have indirect environmental impacts such as those associated with transporting the oil and gas from outside of Ventura County.” After making this conclusion, the DEIR makes no further attempt to analyze the environmental impact of the proposed policy since the impacts would “largely occur outside of the 2040 General Plan project area.”

This is not a legitimate justification to avoid analyzing the environmental impacts of the proposed policy on climate change since this impact is inherently global in scope as the DEIR itself acknowledges in Cumulative Impacts section 5.2.8 (page 5-11):

“Climate change is an inherently cumulative issue and relates to development in the region, California, and, most of all, the world. Therefore, the impacts discussed in Section 4.8, “Greenhouse Gas Emissions,” are also the cumulative effects of implementation of future development under the 2040 General Plan.”

O37-21

The DEIR must analyze the impact of Policy COS-7.2 in accordance with the appropriate global geographic scope of the Greenhouse Gas and Climate Change environmental issue area. Furthermore, in accordance with CEQA Guidelines § 15146, the “degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described.” In the case of Policy COS-7.2, the DEIR proposes a policy with a high degree of specificity, while offering an analysis that falls far short of the CEQA standard. This analysis does not exemplify a lead agency’s “best efforts to find out and disclose all that it reasonably can” (CEQA Guidelines § 15144).

The “indirect impacts...associated with transporting the oil and gas from outside of Ventura

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County” are quantified for each source of crude oil to California refineries and published by CARB pursuant to the LCFS Crude Oil Life Cycle Assessment program as CI values (<https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/crude-oil.htm>).

The volume weighted average CI of Ventura County crude oil for 2018, the latest data available, is 4.41 grams CO₂e/MJ, which is much lower than the California state average of 12.35 grams CO₂e/MJ (see Table -1 below; also see Attachment 3 for 2018 CI data as reported by CARB):

| Ventura County Field | CI (g/MJ) | 2018 Production (Barrels) |
|-----------------------------------------------|--------------|---------------------------|
| Bardsdale | 3.47 | 149,900 |
| Big Mountain | 4.65 | 17,665 |
| Holser | 3.80 | 14,162 |
| Montalvo, West | 2.65 | 280,077 |
| Oak Park | 3.01 | 9,969 |
| Oakridge | 3.46 | 99,675 |
| Ojai | 4.94 | 245,226 |
| Oxnard | 5.39 | 360,708 |
| Ramona | 4.47 | 30,465 |
| Rincon | 4.88 | 235,485 |
| San Miguelito | 5.25 | 330,190 |
| Santa Clara Avenue | 3.53 | 32,746 |
| Santa Susana | 5.29 | 7,167 |
| Saticoy | 3.68 | 34,314 |
| Sespe | 3.98 | 335,009 |
| Shiells Canyon | 5.07 | 50,589 |
| South Mountain | 3.58 | 452,341 |
| Tapo Canyon, South | 3.08 | 7,563 |
| Temescal | 3.40 | 53,416 |
| Timber Canyon | 4.74 | 16,513 |
| Torrey Canyon | 3.52 | 77,568 |
| Ventura | 4.54 | 4,038,762 |
| West Mountain | 3.53 | 12,718 |
| Ventura County Volume Weighted Average | 4.41 | |
| California Volume Weighted Average | 12.35 | |

Figure 3 - Ventura vs. California Volume Weighted Average CI Values

Given that California’s demand for crude oil far exceeds its in-state supply (source: <https://www.eia.gov/state/analysis.php?sid=CA>), any curtailment of Ventura County crude oil production through the implementation of Policies COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax will likely be replaced by crude oil with much higher CI values, closer to the California Volume Weighted Average CI. Proposed Policies COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax will actually result in increased global GHG emissions.

The GHG section of the DEIR must be revised to include the potential negative impacts of Policies COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax on climate change with proposed appropriate mitigation measures for these impacts. Alternatively, the County may recognize that these policies do more harm than good to our climate and remove them from consideration in the EIR.

O37-21
cont.

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Indeed, other lead agencies have included such analyses of relative CI values of crude supplies (Santa Barbara County, February 2019, ERG West Cat Canyon Revitalization Plan Final Environmental Impact Report <http://countyofsb.org/pln/dev/projects/energy/ERGWestCC.sbc>) as published pursuant to CARB's LCFS program

O37-21
 cont.

This revision alone constitutes "significant new information" that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5 considering climate change and greenhouse gases were identified by the DEIR as "key areas of concern" in the Areas of Known Controversy section (page 1-4). The GHG section of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

O37-22

20. Policy COS-7.4 (page 4.8-23) – Policy COS-7.4 is not based on substantial evidence: In mandating electrically powered equipment for oil and gas exploration and production, the DEIR appears to target the oil and gas industry when compared to policies aimed at other industries.

The mandatory language in Policy COS-7.4 stands in stark contrast to similar agriculture and construction-related policies which merely "encourage and support the transition to electric, renewable, or lower emission equipment" (Policy AG-5.2 and 5.3) or "encourage the use of high-efficiency internal combustion engines or electric-powered equipment." (page 4.6-17 and 19).

Emissions from mobile equipment are the same whether from the construction industry, agriculture industry, or oil industry and the DEIR provides no evidence to justify the different treatment. Such arbitrary policies reveal a pervasive bias against Ventura County oil and gas producers throughout the GPU and DEIR while offering scant or misleading evidence to justify this position.

21. Policy COS-9.1 and COS-9.3 (page 4.8-24) – Policies COS-9.1 and COS-9.3 conflict with policies COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax since open space lands currently used for oil and gas production are better able to resist development pressure and conversion.

O37-23

22. Implementation Program M: Oil and Gas Tax (page 4.8-25) – not based on substantial evidence: the DEIR should provide evidence that the policies that may result in reduced local oil and gas production will actually reduce global GHG emissions. It is not clear that this assumption is well-founded since, generally speaking, CI values of Ventura County produced crude oil are relatively lower than crude oil produced in other California fields and global oilfields from which California imports most of the crude oil the state consumes as discussed more extensively in Comments 15 and 19 above.

23. Implementation Programs HAZ-A and HAZ-B (page 4.8-44) – Implementation Programs HAZ-A and HAZ-B potentially conflict with policies COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax since oilfield roads and facilities can provide fire-breaks and wildfire response capabilities in support of the Implementation Programs HAZ-A and HAZ-B.

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24. Mitigation Measure GHG-1: Prohibit Natural Gas Infrastructure in New Residential Development (page 4.8-45) – Impacts from this policy must be analyzed in 4.14 Population and Housing since similar ordinances approved in California municipalities (e.g., San Luis Obispo) include “in-lieu fees” ranging from \$6,000 for a single-family residence up to nearly \$88,549 for large offices, thereby decreasing the affordability of the housing supply (source: <https://www.slocity.org/home/showdocument?id=23868>; <https://www.sanluisobispo.com/news/local/environment/article234680472.html>).

O37-24

HAZARDS, HAZARDOUS MATERIALS AND WILDFIRE

25. Policy HAZ-5.2 (page 4.9-7) – “Disproportionally impacts Designated Disadvantaged Communities” creates a subjective standard without citing a source for the designation.

26. Policy HAZ-6.8 (page 4.9-8) – not based on substantial evidence: The DEIR provides no evidence to support the policy of allowing only “energy production from renewable resources” rather than allowing energy production from any sources. What evidence suggests that renewable resources (such as bio-methane) are any safer than non-renewable resources? Policy HAZ-6.8 is further evidence of the pervasive bias against the oil and gas industry throughout the DEIR.

O37-25

27. Policy HAZ-6.8 (page 4.9-8): Policy HAZ-6.8 should be included in Minerals and Petroleum Resources section impact analysis since it has the potential to “result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.”

O37-26

LAND USE PLANNING

28. 2040 General Plan Policies and Implementation Programs (page 4.11-3) – vague and unclear project description: Policy LU-1.2: Area Designations describes the “Urban” and “Existing Community” area designations. But the DEIR Section 3 Project Description states that these designations are being replaced by “15 land use designations that provide more detailed information on the types of land uses” (page 3-4), which is inconsistent with Policy LU-1.2 Area Designations. This inconsistency further muddles a Project Description that already lacks any meaningful details as Comment 5 above explains.

The same comment applies to Policy LU-2.1 and LU-3.1 through 3.3. Why are these policies considered part of the 2040 General Plan if one of the salient features of the 2040 General Plan is to replace these general designations with more specific designations?

29. Issues not Discussed Further (page 4.11-3): Contrary to the narrative in the “Issues Not Discussed Further” section, the General Plan will have significant impacts to the North Ventura Avenue and Piru communities due to the numerous Mineral and Petroleum proposed policy changes including Policies COS-6.3, COS-6.4, COS-6.5, COS-7.2, COS-7.7, and COS-7.8, which will result in substantial changes and impacts to land use programs and planning in those communities. For example, the North Avenue Plan evaluates the applicability of land use designations to oilfield activities on page 5, analyzes oilfield activities on the “general character” of the area on page 11, etc. These potentially significant impacts to these communities must be

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analyzed in the EIR in order to avoid project piecemealing (*Bozung v. Local Agency Formation Commission* (1975) 13 Cal. 3d 263). | O37-28 cont.

30. Policy COS-6.5 (page 4.11-16): Existing permits and policies do not require discretionary review of compatible mineral extraction including oil and gas. Any new discretionary evaluation to ascertain the significance of the mineral resources deposit would be redundant. Existing production and petroleum reserve studies have proven the existence of mineral deposits for extraction of oil and gas. | O37-29

31. Policy COS-6.5 (page 4.11-16): An analysis of Policy COS-6.5 should be included in 4.14 Population and Housing as it has the potential to impact the ability to meet affordable housing requirements since real estate development could be limited by the policy. | O37-30

32. Impact 4.11-1 (page 4.11-18): recommend changing text “oil and gas wells” to “oil and gas production” in both 2nd and 3rd paragraphs. Gathering lines for conveyance of oil, gas, and/or produced water are exempt and as such, are not subject to discretionary review. Each new or existing well, permissible under an approved and existing permit, is a vested right, not subject to any further discretionary review. See Comment 48 for further discussion on this topic. | O37-31

33. Impact 4.11-1 (page 4.11-21): The change in land use designations and new requirements for discretionary review would turn existing permitting of ministerial actions into discretionary permits. Contrary to the DEIR findings for Impact 4.11-1, such a change is a Class II Significant Impact requiring mitigation. | O37-32

MINERAL AND PETROLEUM RESOURCES

34. Regulatory Setting (page 4.12-1 to 4.12-4) – incomplete regulatory setting: The DEIR focuses primarily on State and federal agencies that regulate pipelines and flaring, which compose a small fraction of the comprehensive regulatory oversight for oil and gas operations in California. Please see Attachment 4 – Oil and Gas Regulatory Setting for a comprehensive list. | O37-33

35. Methodology (page 4.12-5 to 4.12-6) – flawed impact assessment: The petroleum resources map referenced in the DEIR (Figure 8-10 in the Background Report) is a 2016 map of “Petroleum Fields” which reflect the general location of petroleum reserves but do not indicate the known extent of recoverable sub-surface reserves which typically extend well beyond the boundaries indicated in Figure 8-10. This results in a potentially significant underestimate of the impact with regards to “the loss of availability of a known petroleum resource that would be of value to the region and residents of the State.” | O37-34

Furthermore, the total reserves potentially impacted using the above methodology, estimated in the Background Report at 246,141,000 barrels (Background Report page 8-74) is likely an underestimate of the actual county petroleum resources since there’s no indication which resource classes were included in the estimate. | O37-35

In accordance with the Society of Petroleum Engineers (SPE) Petroleum Resources Management System (PRMS), the industry standard, petroleum resources are classified as “discovered and undiscovered” and further defined recoverable resources classes include: “Production, Reserves,

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Contingent Resources, and Prospective Resources, as well as Unrecoverable Petroleum” (source: https://www.spe.org/en/industry/reserves/?mkt_tok=eyJpIjoiVRCbE56TTFZVGhoWmpNNClslNQiOiJMTDdvckhnSk1IOWtzY0hUOTE0MkdQQ3FINE0wNkF6YktnSIRObEp1amJMUmFVZU1PNmIKeJlxOGJXejVGWHc3WHFIWHR2QXZsdTFY1BIUIN6NTJhbDVjNng1U2pEMzVYVWlwvZVBvcGMrOUl0OUZsQmZcLytUbVJm0wOUJiM2U3In0%253D).

O37-35
 cont.

The county oil reserves estimate should include a narrative describing the resource classes included in the estimated reserves and the document should be revised accordingly.

36. Policies COS-7.2 and COS-7.3 (page 4.12-13) – not based on substantial evidence: The DEIR states that policies COS-7.2 and COS-7.3 are proposed to limit effects on human health and references the 2018 Los Angeles County Department of Public Health (DPH) report as justification for the policies (County of Los Angeles. 2018. *Public Health Safety Risks of Oil and Gas Facilities in Los Angeles County*. Los Angeles County DPH).

The 2018 DPH report in turn references several studies that were also cited in the DEIR as justification for policies COS-7.2 and COS-7.3 (California Council on Science and Technology and Lawrence Berkley National Laboratory. 2015. *An Independent Scientific Assessment of Well Stimulation in California*).

However, a review of the 2018 DPH report found that the report’s conclusions and recommendations lack grounding in scientific research. According to the review, the referenced report:

- Lacks the objective scientific data from Los Angeles County operations to support its own conclusions and recommendations,
- Reviews other jurisdictions outside of California when making recommendations or claims,
- Uses weak and unsubstantiated science,
- Uses misleading language,
- Excludes DPH’s own data and previous studies,
- Recommends new regulations without addressing and enforcing current regulations in place (See Attachment 5 – 3/21/2018 DPH Report Comment Letter regarding the 2018 DPH Report for further discussion of the report’s shortcomings).

O37-36

So controversial were the 2018 DPH Report’s findings and DPH’s response to the aforementioned 3/21/2018 comment letter that Los Angeles County Department of Regional Planning’s technical consultant, MRS Environmental Inc., who was responsible for reviewing “early drafts of the DPH Report” and providing “hundreds of comments on the Report,” sent a 5/8/2018 letter to DPH clarifying that:

*“our comments were in some cases accepted, in others partially accepted, and in many instances disregarded. MRS continues to believe that the **DPH Report includes many inaccurate and misleading statements**” (emphasis added);*

And that:

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“MRS does not endorse, support or agree with the DPH Report in its final form”
(emphasis added, see Attachment 6 – 5/8/2018 MRS Letter to DPH).

The referenced 2018 DPH and Associated Reports do not provide suitable evidence that meets “danger to the public/public nuisance” standards required for permit revocation or modification of vested permits that Policies COS-7.2 and COS-7.3 attempt to implement. Please see Comment 48 below for further discussion of vested rights.

- 37. Policies COS-7.2 and COS-7.3 (page 4.12-13) – narrative conflicts with other DEIR findings:** The narrative in support of Policies COS-7.2 and COS-7.3 is inconsistent with the DEIR’s own findings for “Impact 4.9-2: Create a Significant Hazard to the Public or the Environment Through the Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials or Hazardous Waste into the Environment” (page 4.9-13) wherein the DEIR states that with regards to the potential release of hazardous materials or waste, including from “oil and gas exploration and production sites,” through policies HAZ-5.1, HAZ-5.2, HAZ-5.3, HAZ-5.4, HAZ-5.5, HAZ-5.6, HAZ-5.8, HAZ-7.1, HAZ-12.3, and Implementation Programs K and L, the:

“impact related to an accidental hazardous materials or waste stream release would be less than significant”

No further mitigation measures are indicated. If the impacts related to an accidental hazardous materials or waste stream release (including releases from oil and gas facilities) is less than significant, why are policies COS-7.2 and COS-7.3 necessary? The DEIR makes no attempt to reconcile these conflicting narratives.

O37-36
cont.

- 38. Policies COS-7.2 and COS-7.3 (page 4.12-13) – narrative conflicts with other DEIR findings:** The narrative in support of Policies COS-7.2 and COS-7.3 is inconsistent with the DEIR’s own findings for “Impact 4.9-3: Emit Hazardous Emissions or Handle Hazardous Materials Within One-Quarter Mile of an Existing or Proposed School” (page 4.9-14). The DEIR states that with regards to the “potential for hazardous materials usage or handling to be located within 0.25 mile of an existing or proposed school, compliance with federal and State regulations pertaining to hazardous wastes,” including from “oil and gas exploration and production sites,” through adherence to Health and Safety Code Section 25536(a), California Government Code Section 6580.2, Policies HAZ-5.1, HAZ-5.2, HAZ-5.3, HAZ-5.4, HAZ-5.5, HAZ-5.6, HAZ-5.8, HAZ-7.1, HAZ-12.3, and Implementation Programs K and L, the impacts would be less than significant:

“potential for hazardous materials usage or handling to be located within 0.25 mile of an existing or proposed school, compliance with federal and State regulations pertaining to hazardous wastes, as well as 2040 General Plan policies and implementation programs discussed above, would substantially lessen adverse public health and safety impacts. This impact would be less than significant.”

No further mitigation measures are indicated. If the impacts related to hazardous materials usage or handling (including usage or handling at oil and gas facilities) located within 0.25 mile of a school is less than significant, why are policies COS-7.2 and COS-7.3 necessary? The DEIR makes no attempt to reconcile these conflicting narratives.

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39. Mitigation PR-1 (page 4.12-18) – relies in part on unsettled legislation: The DEIR references AB 345 in support of Mitigation PR-1. AB 345 is invalid data that cannot be used in an EIR analysis until it is settled law. AB 345 is not law. O37-37

40. Mitigation PR-1 (page 4.12-18): Because Policy COS-7.2 mandates separation between structures, they are reciprocal and prevent development in both directions. As such, impacts from this policy must be analyzed in DEIR Section 4.14 Population and Housing since the policy will potentially impact the availability of affordable housing. O37-38

41. Policies COS-7.2 and COS-7.3 (page 4.12-19) – not based on substantial evidence: The DEIR also references the 2019 City of Los Angeles report (*City of Los Angeles. 2019 (July). Oil and Gas Health Report*) in support of policy COS-7.2. The DEIR states that the City of Los Angeles report recommends a minimum setback as well as “best available emission control technologies and operational management approaches.”

However, the DEIR entirely ignores the other findings of the 2019 City of Los Angeles report including the following statement recognizing the lack of evidence of public health impacts from oil and gas operations (page 145 of the report):

*“There is a lack of empirical evidence correlating oil and gas operations within the City of Los Angeles to widespread negative health impacts. **The lack of evidence of public health impacts from oil and natural gas operations has been demonstrated locally in multiple studies** by the Los Angeles County Department of Public Health, the Los Angeles County Oil & Gas Strike Team, the South Coast Air Quality Management District and the comprehensive Kern County Environmental Impact Report and Health Risk Assessment” (emphasis added).* O37-39

And the statement explicitly dismissing (page 145 of the report):

“Any public panic or belief in a widespread public health crisis.”

And the statement estimating the staggering expenses that will be incurred if such unnecessary setbacks are implemented in the City of Los Angeles (page 146 of the report):

*“If a surface setback distance is established, it could conservatively cost the City of Los Angeles at least \$148 million for existing oil and gas production and **up to \$97.6 billion in lost property values** by mineral rights owners” (emphasis added).*

The referenced 2019 City of Los Angeles Report does not provide suitable evidence that meets “danger to the public/public nuisance” standards required for permit revocation or modification of vested permits that Policies COS-7.2 and COS-7.3 attempt to implement. Please see Comment 48 below for further discussion of vested rights. O37-39

42. Mitigation PR-1 (page 4.12-21): Directional drilling is a method that cannot be used in all situations given reservoir dynamics, fault positioning and other geologic constraints and cannot be relied upon to mitigate the setback requirements. While it is a useful drilling technique, it is O37-40

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not always a viable option and thereby cannot be relied upon as mitigation of the setback requirement.

O37-40
 cont.

43. Use of Term “Discretionary Wells” (various pages): The DEIR states throughout that all new wells are discretionary, thereby ignoring the fact that there are numerous existing conditional use permits that are vested and allow for ministerial zoning clearance for new wells.

O37-41

44. Mitigation PR-1 (page 4.12-21): The DEIR comes to the correct conclusion that as a result of the proposed policies “the demand for California-produced oil and gas would be satisfied through the importation of additional oil and gas from other countries and Alaska, which in turn could have indirect environmental impacts such as those associated with transporting the oil and gas from outside of Ventura County.” After making this conclusion, the DEIR makes no further attempt to analyze the environmental impact of the proposed policy since the impacts would “largely occur outside of the 2040 General Plan project area.”

O37-42

The DEIR must analyze impact of Policy COS-7.2 in accordance with the appropriate global geographic scope of the Greenhouse Gas and Climate Change environmental issue area. Please see Comment 19 for further discussion.

45. Impact 4.12-4 (page 4.12-22) – uses prejudicial language: The use of the term “antiquated” use permits is not only prejudicial and opinion, it is factually incorrect and ultimately irrelevant. There exist older conditional and special use permits that were properly approved by the County’s discretionary decision-makers (Board of Supervisors) at a public hearing. As such, they are valid permits and vested in their permitted uses. Whether anyone deems such permits to be “antiquated” is ultimately irrelevant; they nevertheless convey a vested right to operate. See further discussion of vested rights under Comment 48 below.

O37-43

46. Impact 4.12-4/Policy COS-7.7 (page 4.12-23) – ignores its own conclusion of infeasibility: the DEIR states that proposed Policy COS-7.7 provides “potential environmental benefits in the form of increased traffic safety, fewer toxic air contaminants and reduced greenhouse gas emissions,” then proceeds to use the next several pages to explain why the proposed policy is likely infeasible:

- *“There are a **variety of logistical challenges** associated with piping crude oil”*
- *“Existing oil pipelines in the county are privately owned.”*
- *“The interconnection agreement is subject to agreement between oil operator and pipeline owner”*
- *“The study concluded that the initial production rate [required for economic feasibility] was **more than 16 times the annual production peak**”*
- *“For many smaller volume operators in the county, the payback period for constructing a crude oil pipeline could **render the investment in pipeline construction infeasible**”*
- *The pipeline operator “reserves the right to reject any and all shipments of oil” that do not meet specifications.*
- *“Meeting these thresholds and standards may require oil operators to install additional on-site production facilities to process the crude oil in order to meet API gravity thresholds, which **may not be technologically or economically feasible to install.**”*

O37-44

- *“Oil operators may not be able to comply with requirements of Policy COS-7.7...due to the **technological and economic infeasibility** of installing Class II injection wells”*

The DEIR itself concludes that Policy COS-7.7 is infeasible. The question is why, after coming to this conclusion, did it remain in the DEIR? Impact 4.12-4 must be revised to acknowledge that Policy COS-7.7 is infeasible, and for that reason, be removed from the consideration in the EIR.

O37-44
cont.

This revision alone constitutes “significant new information” that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5. The Impact 4.12-4 section of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

47. Impact 4.12-4/Policy COS-7.8 (page 4.12-27) – ignores its own conclusion of infeasibility: the DEIR states that proposed Policy COS-7.8 provides “potential environmental benefits in the form of increased traffic safety, fewer toxic air contaminants and reduced greenhouse gas emissions,” then proceeds to use the next several pages to explain why the proposed policy is likely infeasible and amounts to a de facto ban on oil and gas activity:

- *“There are several challenges involved with injecting gas into the intrastate transmission network.”*
- *“There is **no guarantee that SoCalGas would accept the gas** generated by the wells.*
- *“The study concluded that alternatives to the facility’s existing practice of continuous primary flaring...**would not support the costs** associated with transporting the gas to market...”*
- *“operators beyond the two-mile radius of a major gas transmission pipeline **would not be able to comply with the pipeline requirements of Policy COS-7.8 due to the technical or economic infeasibility.**”*
- *“Policy COS-7.8 could effectively prohibit the development of new discretionary oil and gas wells located outside of a two-mile radius of a major gas transmission pipeline.”*

O37-45

And the DEIR presents no evidence to justify the arbitrary 2-mile feasibility demarcation. The DEIR simply makes two bold assumptions:

1. *“Oil wells located within a 2-mile radius of a major oil or gas transmission pipeline are connected to these transmission lines through smaller gathering or minor pipelines.”*
2. *“Operators have the ability to meet the API gravity thresholds and standards required to convey their oil through a major oil transmission pipeline.”*

The DEIR acknowledges Policy COS-7.8 will “effectively prohibit the development of new discretionary oil and gas wells” and the prohibition may either apply to wells outside of the 2-mile radius only, or throughout the entire county, depending on the accuracy of the aforementioned assumptions, for which no substantiating evidence is provided. The lead agency can and must do better than this when proposing policies of this scale and consequence.

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Impact 4.12-4 must be revised to acknowledge that Policy COS-7.8 is infeasible and is a de facto ban on oil and gas activities in Ventura County, and for that reason, must be removed from consideration in the EIR.

This revision alone constitutes “significant new information” that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5. The Impact 4.12-4 section of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

O37-45
cont.

48. Impact 4.12-4/Policy COS-7.7 and COS-7.8 (page 4.12-31): The DEIR concludes that Policies COS-7.7 and COS-7.8:

*“would mandate infrastructure that may **be technologically or economically infeasible to install;**” (emphasis added)*

And that the policies would:

“render a substantial quantity of petroleum resources inaccessible.”

The DEIR’s own narrative describes Policies COS-7.7 and COS-7.8 as infeasible and what amount to an unconstitutional taking under the law, which the DEIR defends by noting the County’s willingness to engage in other unconstitutional behavior involving zoning ordinance modifications (page 4.12-22):

“The County is considering amending its zoning ordinances to similarly require a discretionary permit modification to authorize new oil and gas developments under “antiquated” use permits.”

O37-46

In doing so, the County ignores its own County Counsel’s 2014 “Legal Analysis on Antiquated Oilfield Conditional Use Permits” memorandum (see Attachment 7 – 2014 Ventura County Counsel Vested Rights Memo) wherein the County Counsel advised:

“The vested right in a permit entitles the permit holder significant and heightened judicial protections from revocation, imposition of new regulations, and changes to the permit.”

“The vested rights doctrine and constitutional principles of due process prevent a county from a general exercise of its police power to add modern conditions to antiquated oilfield permits just for the sake of improving their operation for the general welfare.”

By its own account, the County recognizes that Policies COS-7.7 and COS-7.8 are infeasible and unconstitutional. A county’s General Plan update process is no place to engage in such legal antics. Impact 4.12-4 must be revised to acknowledge that Policies COS-7.7 and COS-7.8 are infeasible and unconstitutional, and for those reasons, must be removed from consideration in the EIR.

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This revision alone constitutes “significant new information” that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5. The Impact 4.12-4 section of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

O37-46
 cont.

ALTERNATIVES

49. 6.4 Alternatives Considered But Not Evaluated Further (page 6-7) – fundamentally flawed and misleading alternatives analysis: As correctly noted on page 6-7, the EIR should “identify any alternatives that were considered by the lead agency, but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency’s determination” pursuant to CEQA Guidelines Section 15126.6(c). The DEIR subsequently identifies two project alternatives that were “considered but not evaluated further”:

- 6.4.4 Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative
- 6.4.5 Eliminate or Reduce Existing Oil and Gas Wells or Production Alternative

For 6.4.4, the DEIR states that “this alternative was rejected from detailed consideration in the draft EIR for the following reasons,” but doesn’t provide any reason for rejection. Rather, it proceeds to explain how “major elements of this alternative are included in the 2040 General Plan” including:

- “several policies that would have the effect of limiting increases in the number of new discretionary oil and gas wells in the county”
- “Policy COS-7.2 would require that new oil wells subject to discretionary approval are located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school.”
- “The substantial increases in setback requirements for new wells subject to discretionary permitting established by this policy would likely reduce the number of new discretionary oil and gas wells by prohibiting new discretionary wells within certain areas.”
- “policies...that would reduce the number of new discretionary oil and gas wells without placing a physical limitation on location or access” (Policies COS-7.8 and COS-7.9) which:
- “could make new oil and gas wells subject to the County’s discretionary approval process infeasible” (emphasis added).

O37-47

In the first paragraph on page 6-9, the DEIR doesn’t list a single actual reason for rejection because, as it carefully outlines above, it accepted every policy that would achieve the proposed “Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative.” Contrary to the DEIR’s narrative, Alternative 6.4.4 was not rejected.

The second paragraph on page 6-9 begins by saying (not having yet listed a single reason for rejection):

*“This alternative was **also** rejected from detailed consideration in the draft EIR because it focuses on one specific land use and does not comprehensively address most of the basic*

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project objectives” (emphasis added).

Here, the DEIR acknowledges that it would be inappropriate to focus solely on one specific land use, even though, by accepting every policy that would achieve the alternative and as evidenced by the pervasive bias against the oil and gas industry throughout the document, that is precisely what the GPU intends to accomplish.

For 6.4.5, the DEIR states that in response to NOP comments recommending that the “County take actions to eliminate or greatly reduce the number of existing oil and gas wells” (please see Comment 1 for discussion of the biased description of “areas of known controversy”), this alternative was:

“likewise rejected from detailed consideration in the draft EIR.”

And that:

“This alternative would also present legal and economic feasibility issues that could be implicated by County efforts to reduce production from existing oil and gas wells.”

In this statement, the DEIR attempts to draw a fine line between protecting the vested nature of existing permits and operations (as the Ventura County Counsel so accurately described in the aforementioned 2014 “Legal Analysis on Antiquated Oilfield Conditional Use Permit” memorandum – see Attachment 7) and “new discretionary oil and gas wells” which it perceives as fair game. Meanwhile, the DEIR shines a light on the County’s efforts to undermine the very vested rights it purports to protect by “rejecting” Alternative 6.4.5, when it says (page 4.12-22, as previously noted under Comment 48 above):

“The County is considering amending its zoning ordinances to similarly require a discretionary permit modification to authorize new oil and gas developments under “antiquated” use permits”

Through the DEIR alternatives analysis narrative, the County implicates itself in its attempt to trample on the constitutional property rights of its residents, while making a mockery of the alternatives analysis prescribed by CEQA. With a wink and nod to the commenter who proposed Alternatives 6.4.4 and 6.4.5, “Citizens For Responsible Oil & Gas,” the County purports to “reject” the alternatives while including every “major element” of the alternative in the 2040 GPU.

The reality is that Alternatives 6.4.4 and 6.4.5 were not rejected at all. The Alternatives Analysis is not a good faith “consideration and discussion of alternatives to the proposed project” as required by CEQA Guidelines 15126.6. It is fundamentally flawed, misleading and must be revised appropriately.

This revision alone constitutes “significant new information” that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5. The Alternatives Analysis of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public

O37-47
cont.

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review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

O37-47
cont.

Again, WSPA appreciates this opportunity to continue our engagement in the Ventura County General Plan Update (GPU) process in support of policies that will create the most sustainable energy future for our community, region, and nation. It is our sincere hope that the extensive comments noted herein on one of the most important documents guiding the future of Ventura County will be evaluated in good faith, with reasoned analysis, and at a level of detail that corresponds with the submitted comments in accordance with CEQA Guidelines § 15088(b).

O37-48

We submit these comments with all due respect and look forward to working collaboratively with the County of Ventura and the many stakeholders in the GPU process.

Sincerely,



Cc: Susan Curtis, Ventura County
Kim Prillhart, Ventura County
Dave Ward, Ventura County

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| Letter O37 | Western States Petroleum Association Ben Oakley, California Coastal Region Manager February 27, 2020 |
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O37-1 The description of the role of the commenting organization is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

This comment letter contains multiple references to attachments to the main body of the letter. The County has reviewed the attachments and determined that they do not contain comment on the content or conclusions of the draft EIR, nor do they raise any significant environmental issues for which a response is required. All comment letters submitted to the County on the draft EIR are provided with complete attachments in Attachment 1 to this final EIR.

O37-2 The comment summarizes more detailed comments provided elsewhere in the comment letter. See responses to comments O37-3 through O37-47 regarding the adequacy of the draft EIR.

O37-3 See response to comment O5-9 regarding identification of areas of controversy. Areas of controversy are related to implementation of the proposed project and were identified through the California Environmental Quality Act (CEQA) process. They did not inform or drive the policies under analysis.

O37-4 Refer to Master Response MR-2 for a discussion of population projections and Master Response MR-2 for discussion of the Regional Housing Needs Assessment (RHNA).

O37-5 The comment suggests that the draft EIR should evaluate impacts to economic vitality. However, EIRs are not required to treat a project’s economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The comment does not provide evidence that implementing the 2040 General Plan would result in any adverse physical changes to the environment not already addressed in the draft EIR. Also refer to the response to comment O31-2.

O37-6 The comment expresses specific concerns about the economic and employment data provided for the oil and gas industry in the Background Report. This information is largely outside the scope of the analysis in the draft EIR.

As described in Section 4.12, “Mineral and Petroleum Resources,” of the draft EIR (page 4.12-6), the thresholds used to determine the significance of the 2040 General Plan’s impacts are based on a combination of the County of Ventura’s adopted Initial Study Assessment Guidelines (ISAG) and Appendix G to the State CEQA Guidelines. The ISAG thresholds regarding development that could hamper or preclude access to petroleum resources are evaluated together, with language to emphasize that the analysis is relative to existing conditions, and the

CEQA threshold related to availability of mineral resources was added as a separate threshold. The analysis found that the 2040 General Plan could impede access to petroleum resources or result in the loss of known petroleum reserves. Mitigation measures are proposed that would reduce draft 2040 General Plan restrictions on well distancing, trucking of produced oil and gas, and flaring. With these policy revisions, the potential for the project to hamper or preclude access to petroleum resources was identified as significant and unavoidable. However, the loss of availability of a known petroleum resource that would be of value to the region and the residents of the State would be less than significant because the mitigation would allow the County's approval of new oil and gas wells that utilize flaring or venting of produced gas and/or trucking of oil and produced water in situations where there is no feasible alternative.

Economic and social changes are not considered significant effects on the environment. These factors are considered by public agencies together with technological and environmental factors when "deciding whether changes in a project are feasible to reduce or avoid significant effects on the environment identified in the EIR" (State CEQA Guidelines, § 15131(c)). While this information must be in the record to allow the lead agency to consider the factors in reaching a decision, there is no requirement that it be incorporated into the EIR. Therefore, while considerations including the quantity of individuals employed in the oil and gas industry and the economic output of the sector do provide an overview of conditions in the County that may inform the County's policy decisions, they are not imperative to the analysis of whether implementation of the 2040 General Plan would result in conditions that limit access to petroleum resources.

Further, economic conditions are relevant where the decision-making body is deciding whether changes in a project are feasible to reduce or avoid significant effects. In this case, illustrating the monetary value of the petroleum industry to the County provides support for the mitigation in the draft EIR to reduce the setback proposed in Policy COS-7.2 by implementing Mitigation Measure PR-1. Therefore, the analysis and conclusions in the draft EIR would be unaffected.

For these reasons, the suggested additions and revisions to the Background Report are not required.

- O37-7 Refer to Master Response MR-3 regarding RHNA and the Housing Element update process.
- O37-8 Refer to Master Responses MR-2 and MR-3 for information related to CEQA requirements of a project description.
- O37-9 Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- O37-10 As provided on page 4-2 of the draft EIR, the evaluation of environmental impacts focuses on the potential impacts of development within unincorporated areas of the county under the General Plan through 2040. Growth forecasts anticipated within the county are described within Table 3-3, on page 3-20 of the

draft EIR, and were estimated for 2020, 2030, and 2040 using county-specific demographic projections prepared by the Southern California Association of Governments for the 2020 Regional Transportation Plan and Sustainable Communities Strategy (SCAG 2017). As previously stated, build-out of the plan area consists of future development occurring in unincorporated areas of the County, as further depicted in Figures 3-2a and 3-2b. On page 3-20 of the draft EIR, the following is provided: Based on the similarities between the land use diagrams of the existing General Plan and 2040 General Plan and other factors influencing development, the County anticipates that allocation of future residential development would substantially follow historical trends with implementation of the 2040 General Plan. For example, to the extent historical residential development trends continue into the future, approximately 564 of the 1,281 additional households forecast in the unincorporated county between 2015 and 2040 (see Table 3-3) would be developed within areas of the county designated for residential, industrial, and mixed land uses. Further, the analyses evaluate the effectiveness of the 2040 General Plan policies and programs in avoiding or reducing the potential impacts of 2040 General Plan implementation.

For additional information, please refer to Master Response MR-2 and MR-3 regarding the CEQA definition of a project and CEQA requirements for a project description.

O37-11 Refer to Master Response MR-5 for a discussion of the feasibility of Mitigation Measure AG-2.

The comment also states that the potential impacts of implementing Implementation Program AG-X: Establish an Agricultural Conservation Easement (included in Mitigation Measure AG-2) should be analyzed in the draft EIR in Section 4.14, "Population and Housing," because this program would affect the affordability of the housing supply. This analysis has not been added to the draft EIR because there is no evidence that Mitigation Measure AG-2 would affect the future cost of housing and, in addition, there is not a clear link between such unestablished increased housing costs and any adverse physical changes to the environment that require analysis in this EIR. A lead agency need not speculate about environmental impacts (CEQA Guidelines, § 15145) and EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). With limited exceptions, under the County's existing and proposed General Plan land use designations and the Save Open Space and Agricultural Resources initiative, appreciable housing development could not occur on the types of classified farmland the development of which would be subject to Mitigation Measure AG-2. Consequently, this mitigation measure could not logically increase the cost of new housing at the programmatic level, let alone lead to any related environmental impact that would require analysis in this draft EIR. The comment provides no substantial evidence to the contrary.

O37-12 Refer to Master Response MR-4 regarding the feasibility of implementing proposed 2040 General Plan policies related to oil and gas.

O37-13 The comment asserts that the draft EIR does not provide “an informative picture” of “energy consumption, energy mix and energy efficiency” that is “happening now under the current general plan.” However, the draft EIR does provide existing natural gas and electricity consumption in the county (total and per capita) to inform the analysis conducted in Impact 4.6-1 (Result in the Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources or Conflict with or Impede State or Local Plans for Renewable Energy or Energy Efficiency) in Section 4.6, “Energy,” (starting at page 4.6-18). Refer to Table 4.6-2 (page 4.6-20). The comment does not address what specific information or data are missing from the draft EIR analysis of energy impacts. No further response can be provided. Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.

The County has effectively and adequately analyzed the potential for implementation of the 2040 General Plan to result in wasteful, inefficient, or unnecessary consumption of energy, consistent with the 2019 revisions to Appendix G checklist questions VI.a and VI.b, as explained on page 4.6-6 of the draft EIR. There is no requirement to “judge whether implementation of the 2040 GP will have a beneficial, adverse or neutral impact on energy resources” as asserted by the commenter. See also Section 4.17, “Utilities,” in the draft EIR, which includes a discussion of the potential for the 2040 General Plan to require the expansion of energy infrastructure.

O37-14 The comment asserts that the 2040 General Plan Policies HAZ-4.1, HAZ-4.15, and Piru Area Plan Policy P-60.2 should be included in the analysis of whether the 2040 General Plan would result in the loss of availability of a known petroleum resource that would be of value to the region and residents of the State (draft EIR Impact 4.12-4).

Policy HAZ-4.1 would prohibit habitable discretionary development in Earthquake Fault-Rupture Hazard Zones unless a geologic investigation is performed and appropriate and sufficient safeguards, based on this investigation, are incorporated into the project design. The comment does not explain or address why this policy addressing habitable development in Earthquake Fault-Rupture Hazard Zones would result in the loss of a known petroleum resource of value to the region and residents of the State. This policy would not change the draft EIR impact conclusion for Impact 4.12-4 and no revisions to the draft EIR have been made in response.

Through Policy HAZ-4.15 the County would require that potential ground surface subsidence be evaluated prior to approval of new oil, gas, water or other extraction well drilling permits and appropriate and sufficient safeguards are incorporated into the project design and facility operation. The comment does not explain or address why requiring the evaluation of and sufficient safeguards for ground surface subsidence would result in the loss of a known petroleum resource of value to the region and residents of the State. This policy would not change the draft EIR impact conclusion for Impact 4.12-4 and no revisions to the draft EIR have been made in response.

Piru Area Plan Policy P-60.2 explains that the County shall prohibit development in seismic and geologic hazard areas where hazards cannot be mitigated without significant adverse environmental effects or where public expenditures for mitigating would not be cost-effective. This policy applies to the Piru Area Plan. The comment asserts that “cost effective” is a subjective standard, and then speculates that as a result, this policy could potentially be over-applied to limit any proposed development. The comment does not present any substantial evidence in support of its assertion that a policy to prohibit development in seismic and geologic hazard areas within the Piru Area Plan, subject to the specific conditions described in P-60.2, would be “over-applied” by the County to limit “any” proposed development in the unincorporated county, including, presumably, new discretionary oil and gas development. This policy would not change the draft EIR impact conclusion for Impact 4.12-4 and no revisions to the draft EIR have been made in response.

O37-15

The comment requests that the draft EIR include a summary of the technical assumptions and methods used in the GHG modeling so that the reader need not refer to the appendices to “infer what assumptions were made.” For clarification, note that the calculations used to prepare Appendix B of the 2040 General Plan, including GHG forecasting, were included in Appendix D of the draft EIR. It is not necessary for the reader to refer to both appendices when reviewing the draft EIR.

In its definition of an “Environmental Impact Report,” Public Resources Code Section 21061 explains that where “information or data relevant” to an EIR “is a matter of public record or generally available to the public (it) need not be repeated in its entirety” in an EIR “but may be specifically cited as the source for conclusions” so long as it is “briefly described,” its relationship to the EIR explained, and available for public inspection. In this instance, the information and data relied upon in the draft EIR are briefly described in Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR and the modeling was made available in the draft EIR as Appendix D, on the same 2040 General Plan webpage where the draft EIR and other project materials were published, and as a component of every printed copy distributed for public review. Consistent with Section 15147 of the State CEQA Guidelines, the summarized information contained in the draft EIR is “sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public.”

The assumptions included in Appendix D to the draft EIR for the GHG emissions inventory and projections are summarized in in the “Methodology,” subsection of Section 4.8, “Greenhouse Gas Emissions,” on pages 4.8-4 through 4.8-6 of the draft EIR. As noted by the commenter, Table 4.8-2 provides forecast emissions by sector, which inform the analysis that follows. The underlying assumptions used to formulate these projections have not been provided but are appropriately noted in Appendix D to the draft EIR. The EIR is intended as a public disclosure document that can be readily comprehended by the lay person; as such, it is necessary and appropriate to summarize the results of the technical modeling.

Note that a revised version of draft EIR Appendix D is included as Attachment 2 to this final EIR. Appendix D has been revised to include more explicit data on

the methods used to quantify emissions, especially as they relate to oil and gas and solid waste emissions. Refer to Master Response MR-1 and responses to comments O6-27 through O6-31 for a discussion of these revisions.

- O37-16 The comment states that the draft EIR should account for the relative carbon intensity value of crude oil produced in Ventura County. Refer to responses to comments O2-6 and O6-33 regarding whether additional discussion of the potential for GHG emissions from extraction of crude oil outside of the county compared to extraction occurring within the county is appropriate for inclusion in this draft EIR, and whether the inventory and forecasts used in the draft EIR should account for the carbon intensity of crude oil production.
- O37-17 The comment notes that the Background Report suggests a trend toward reductions in oil production, but Appendix D to the draft EIR assumed an increase in production. As explained in responses to comments O6-30 and O20-7, the upward trend shown in Appendix D was the artifact of a calculation error that occurred when scaling the data. Appendix D has been revised and is included as Attachment 2 to this final EIR. This correction eliminates the inconsistency noted by the commenter but does not affect the analysis or conclusions in the draft EIR. Refer to Master Response MR-1 for additional discussion.
- The comment also states that the draft EIR “singles out the oil and gas industry” by including Policies COS-7.2, COS-7.4, COS-7.7, and COS-8.1, as well as Implementation Program COS-M. Note, however, that these policies and program were proposed by the County as part of the 2040 General Plan. The draft EIR evaluates the environmental effects of these policies and programs; it does propose them. Refer to Master Response MR-4 for further discussion of the policies related to the oil and gas industry that have been proposed in the 2040 General Plan.
- O37-18 The comment states that forecast GHG emissions for unincorporated Ventura County should be removed from consideration in the EIR. See response to comment O37-17, above, regarding the appropriate use of this data in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.
- O37-19 The comment asserts that the draft EIR targets violate CEQA case law and are not based on substantial evidence. Refer to Master Response MR-1 for discussion regarding GHG reduction target setting and alignment with State targets.
- O37-20 The comment asserts that Policies COS-7.2, COS-7.4, and COS-7.7 and Implementation Program COS-M are likely preempted by federal law, violate existing property rights or are infeasible. This comment has been noted by the County; however, the comment does not elaborate on which federal law, types of property rights, or indicators of feasibility could potentially be affected by these policies and programs. The draft EIR properly analyzes the physical environmental consequences of implementation of the 2040 General Plan, including the above-mentioned policies and program. Refer to Master Response

MR-4 for further discussion of the County’s authority to regulate oil and gas development.

O37-21 The comment asserts that the draft EIR assumes that the 2040 General Plan Policy COS-7.2 will result in lower GHG emissions but does not provide evidence to justify this assumption.

In draft EIR Section 4.8, “Greenhouse Gas Emissions,” Policy COS-7.2 is listed in Table 4.8-7 (page 4.8-45), which lists 52 policies from the 2040 General Plan that are intended to result in GHG reductions, but are not associated with implementation programs that would put these policies into action. Policy COS-7.2 is listed in this table but is not otherwise referenced in Section 4.8 as resulting in GHG reductions. Moreover, this policy was not modeled in the GHG forecast to result in any measurable decrease in GHG emissions (refer to draft EIR Table 4.8-5 [pages 4.8-39 to 4.8-40] draft EIR Appendix D).

As discussed Master Response MR-4, Policy COS-7.2 would reduce the potential for sensitive receptors at residential dwellings and schools to be exposed to air pollutants including toxic air contaminants associated with new oil and gas wells. Reductions in GHG emissions are not described as a result of Policy COS-7.2 in the draft EIR, MR-4, or elsewhere in the final EIR.

Policy COS-7.2 was inadvertently included in Table 4.8-7 in the draft EIR, and the County has corrected this error in the final EIR to remove Policy COS-7.2 from Table 4.8-7, as shown below (page 4.8-45):

Table 4.8-7 GHG-Reducing Policies Not Associated with Implementation Programs

| GP Policy Element | Policy |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land Use | LU-11.3, LU-11.4, LU-16.5, LU-16.9, LU-18.5 |
| Circulation, Transportation | CTM-2.5, CTM-2.6, CTM-2.7, CTM-2.8, CTM-2.9, CTM-2.11, CTM-2.17, CTM-2.22, CTM-2.24, CTM-2.25, CTM-2.27, CTM-6.1, CTM-6.3, CTM-6.4, CTM-6.5, CTM-6.6, CTM-6.7 |
| Public Facilities | PFS-1.10, PFS-2.2, PFS-2.3, PFS-2.6, PFS-5.5, PFS-5.6, PFS-6.4, PFS-7.2, PFS-7.6, PFS-12.4 |
| Conservation | COS-1.13, COS-2.10, COS-3.3, COS-5.3, COS-7.2 , COS-7.4, COS-7.8, COS-8.2, COS-8.3, COS-8.4, COS-8.10, COS-9.1, COS-9.3 |
| Hazard | HAZ-10.1, HAZ-1.3, HAZ-1.4, HAZ-10.1, HAZ-10.5, HAZ-10.6, HAZ-10.7, HAZ-10.8, HAZ-11.9 |
| Agriculture | AG-1.1, AG-3.2, AG-4.3, AG-4.4 |
| Water | WR-4.4, WR-6.1, WR-6.2, WR-6.3 |
| Economic Vitality | EV-4.4 |

Further, the comment notes that the discussion of potential effects of the revisions to Policy COS-7.2 proposed in Mitigation Measure PR-1 in Section 4.12, “Mineral and Petroleum Resources,” of the draft EIR indicates that the

revised policy may increase the import of oil and gas, but does not speculate further about the potential environmental effects that could occur outside of the planning area as a result. The comment questions the validity of this approach based on the statement in Chapter 5, “Cumulative Impacts,” that the GHG impacts discussed in Section 4.8, “Greenhouse Gas Emissions,” are cumulative because climate change “is an inherently cumulative issue.” The comment also asserts that the 2040 General Plan (specifically, Policies COS-7.2, COS-7.4, COS-7.7, and COS-8.1, and Implementation Program COS-M) would result in an increase in global GHG emissions due to the relative carbon intensity of oil production outside of Ventura County and suggests that this increase should be evaluated in the draft EIR.

Refer to Master Response MR-4 for discussion of environmental effects of oil importation from outside the study area. Also refer to responses to comments O2-6 and O6-33 for information on carbon intensity of oil and gas production from various sources. As explained in these responses, it would not be appropriate for the EIR to consider potential emissions resulting from increased imports of oil and gas. No revisions to the draft EIR have been made in response to this comment.

- O37-22 The comment references suggested revisions to the draft EIR that were presented in comment O37-21, above, and states that these revisions constitute “significant new information” requiring recirculation of the draft EIR. See response to comment O37-21, above, regarding the appropriate consideration of Policies COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.
- O37-23 The comment identifies a series policies and implementation programs that are proposed in the 2040 General Plan and identified in the analysis in Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR because of their potential to reduce GHG emissions. The County’s justification and motivation to propose these policies and programs is wholly outside the scope of the analysis required by CEQA. There is no relevant substantial evidence standard for the policies and implementation programs included in the 2040 General Plan. The commenter’s concern about the potential for conflict between the policies and programs in the 2040 General Plan and disapproval of policies in the 2040 General Plan are acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- O37-24 The comment suggests that the effect of Mitigation Measure GHG-1, which would prohibit natural gas infrastructure in new residential and commercial development, on the cost of new housing must analyzed in draft EIR Section 4.14, “Population and Housing,” citing the City of San Luis Obispo as an example of where an in-lieu fee can be paid if developers opt to continue to construct mixed-fuel buildings. Note that Mitigation Measure GHG-1 does not include a similar in-lieu fee provision. Further, there is no indication that home builders, if given the option, would choose to pay an in-lieu fee and proceed to add the cost onto the price of new homes.

The population and housing effects of the proposed 2040 General Plan policies are evaluated in the draft EIR in Section 4.14, "Population and Housing." Using the significance thresholds provided in the State CEQA Guidelines and adopted in the County's ISAG, the draft EIR analysis of housing impacts addresses whether implementation of the 2040 General Plan would eliminate three or more existing affordable housing units or displace substantial numbers of people or housing units (Impact 4.14-1 starting at page 4.14-5) and result in low-income employment opportunities that could generate demand for new housing that exceeds the County's inventory of land to develop low-income housing (Impact 4.14-3 starting on page 4.14-9). The draft EIR concludes that these impacts would be less than significant because implementation of the 2040 General Plan would not displace substantial numbers of housing units including affordable housing units, and because the 2040 General Plan includes policies and programs to provide adequate provision of low-income housing for projected increases in low-income employment opportunities through 2040. The implementation of these two mitigation measures and 2040 General Plan policy would not result in direct or indirect impacts on affordable housing that are not already analyzed in the draft EIR.

Refer to response to comment O24-4 for description of the analysis of population and housing impacts conducted in the draft EIR, which include analysis of whether implementation of the 2040 General Plan would eliminate three or more existing affordable housing units or displace substantial numbers of people or housing units (Impact 4.14-1 starting at page 4.14-5) and result in low-income employment opportunities that could generate demand for new housing that exceeds the County's inventory of land to develop low-income housing (Impact 4.14-3 starting on page 4.14-9). The implementation of Mitigation Measure GHG-1 would not result in direct or indirect impacts on affordable housing that are not already analyzed in the draft EIR.

Analysis of the potential costs of Mitigation Measure GHG-1 on the cost of housing has not been added to the draft EIR due to the uncertainty embedded in these assumptions and because there is not a clear link between the potential for increased housing costs and any adverse physical changes to the environment not already addressed in the draft EIR. The commenter's concern about the potential for Mitigation Measure GHG-1 to affect housing affordability is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

O37-25 Refer to response to comment O37-23, above, regarding the proposed 2040 General Plan policies not being subject to a substantial evidence standard under CEQA. The comment expresses an opinion about 2040 General Plan policies and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.

O37-26 The comment asserts that 2040 General Plan Policy HAZ-6.8 (Airport Safety Zones) should be evaluated in Section 4.12, "Mineral and Petroleum Resources,"

in the draft EIR because it has potential to result in the loss of availability of a known mineral resource. Through this policy, the County would designate land within Airport Safety Zones as Agricultural or Open Space in the General Plan land use diagram “and limit such land to the following uses: Agriculture and agricultural operations; cemeteries; Energy production from renewable resources; Mineral resources development; Public utility facilities; Temporary storage of building materials; Waste treatment and disposal; or Water production and distribution facilities.” It is not clear how allowing mineral resource development within Airport Safety Zones would result in the loss of availability of a known mineral resource. No revisions to the draft EIR have been made in response this comment.

O37-27 Refer to response to comment O5-75 and Master Response MR-2 for discussion of how the Urban and Existing Community area designations relate to the land use designations and policies established in the 2040 General Plan.

O37-28 The comment cites text from draft EIR Section 4.11, “Land Use and Planning,” which explains that the Area Plans do not contain unique policies relevant to the analysis of potential land use and planning effects under the established thresholds of significance. The comment further asserts that the following 2040 General Plan policies will result in “substantial changes and impacts to land use programs and planning” in the North Ventura Avenue and Piru communities:

Policy COS-6.3, which promotes the local extraction of mineral resources locally, Policy COS-6.4, which prohibits discretionary development within Mineral Resource Zones that would significantly hamper or preclude access to or the extraction of mineral resources, Policy COS-6.5 addressing compatibility of discretionary development with mineral resources extraction and processing, Policy COS-7.2 requiring that new discretionary oil wells be setback from residential dwellings and schools, Policy COS-7.7 regarding pipeline conveyance of oil and produced water for new discretionary oil wells, and Policy COS-7.8, which prohibits flaring at new discretionary oil and gas wells except in cases of emergency or for testing purposes.

As described in Chapter 3, “Project Description” (draft EIR page 3-10), the County assessed the goals, policies, and programs in the existing Area Plans as part of the 2040 General Plan update process. During preparation of the 2040 General Plan the North Ventura Avenue Area Plan and Piru Area Plan were reviewed and assessed to compare the Area Plan goals, policies, and programs with 2040 General Plan goals, policies, and programs to ensure internal consistency. The North Ventura Area Plan and Piru Area Plan are components of the 2040 General Plan under evaluation in the draft EIR. Therefore, no piecemealing has occurred as asserted by the comment.

The draft EIR evaluates the land use and planning impacts of the 2040 General Plan in Section 4.11, “Land Use and Planning,” including whether it would result in physical development incompatible with existing land uses, architectural form and style, site design/layout, or density/parcel sizes within any community (Impact 4.11-1, page 4.11-18); the physical division of an established community (Impact 4.11-2, page 4.11-21); and a significant environmental impact due to a

conflict with a regional plan, policy, or program adopted for the purpose of avoiding or mitigating an environmental effect (Impact 4.11-3, page 4.11-22). The issues raised in this comment could not result in a significant environmental impact due to a plan conflict under Impact 4.11-3 because the Area Plans referenced are part of the 2040 General Plan. The comment does not explain how the 2040 General Plan policies it cites would result in significant impacts in these communities and whether or how such impacts would differ from the draft EIR impact conclusions. No further response is required and no revisions to the draft EIR have been made in response to this comment.

- O37-29 The comment addresses policies proposed in the 2040 General Plan and is not related to the adequacy of the draft EIR. Policy COS-6.5 would apply to new discretionary development that is proposed in areas where there is mapping to suggest that mineral resources are present. It would require a study to determine “if the use would significantly hamper or preclude access to the extraction of mineral resources” and establishment of appropriate buffers from existing mining to avoid land use conflicts. The commenter’s notes about petroleum reserve studies conducted for existing extraction activities are not relevant to the application of the policy. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration before making a decision on adopting a Final 2040 General Plan.
- O37-30 This comment asserts that the draft EIR should evaluate the potential impacts of Policy COS-6.5 on affordable housing requirements in Section 4.14, “Population and Housing.” Refer to the response to comment O37-29 for description of this policy.
- Refer to response to comment O24-4 for description of the analysis of population and housing impacts conducted in the draft EIR, which include analysis of whether implementation of the 2040 General Plan would eliminate three or more existing affordable housing units or displace substantial numbers of people or housing units (Impact 4.14-1 starting at page 4.14-5) and result in low-income employment opportunities that could generate demand for new housing that exceeds the County’s inventory of land to develop low-income housing (Impact 4.14-3 starting on page 4.14-9). Because Policy COS-6.5 would require that discretionary development not hamper or preclude access to the extraction of mineral resources it would not result in impacts to housing, including affordable housing, under Impacts 4.14-1 to 4.14-3). Also refer to Master Response MR-3 explaining that the 2040 General Plan is in compliance with RHNA requirements and State housing law.
- O37-31 The commenter recommends that the text referring to “oil and gas wells” related to Impact 4.11-1 (Result in Physical Development That Is Incompatible With Land Uses, Architectural Form Or Style, Site Design/Layout, Or Density/Parcel Sizes Within Existing Communities) in the draft EIR on page 4.11-18 be changed to “oil and gas production” in the second and third paragraphs. These paragraphs discuss the allowed uses in the County’s zoning ordinance for Rural, Open Space and Agricultural zone classifications. Specifically, pursuant to the Non-Coastal Zoning Ordinance Section 8105-4, Permitted Uses in Open Space, Agricultural, Residential and Special Purpose zones (page 5-4), oil and gas

exploration and production is a compatible land use allowed in these zone classifications, with a Conditional Use Permit. In response to this comment, the draft EIR, Section 4.11, "Land Use Planning," (page 4.11-18), will be revised as follows:

The Rural land use designation would allow for low-density and low-intensity land uses such as residential estates and other rural uses which are maintained in conjunction with agricultural and horticultural uses or in conjunction with the keeping of farm animals for recreational purposes, greenhouses, as principal and accessory structures related to agriculture, and also oil and gas ~~wells~~ exploration and production, all of which would apply to approximately 0.9 percent of land in the unincorporated county.

Approximately 97.1 percent of the unincorporated county would remain designated as either Open Space (approximately 88 percent) or Agriculture (approximately 9 percent) under the 2040 General Plan. The Open Space land use designation would allow low intensity development with a minimum parcel size of 10 acres and 1 dwelling unit per parcel. Other uses could include composting operations, greenhouses, correctional institutions, fire stations, and oil and gas ~~wells~~ exploration and production. The Agriculture land use designation would allow for development of one dwelling unit per parcel and a minimum parcel size of 40 acres. Other uses could include greenhouses, as principal and accessory structures related to agriculture, and composting operations. Proposed policies of the 2040 General Plan addressing flaring and trucking associated with new discretionary oil and gas wells could result in the construction and operation of new pipelines for the conveyance of oil, gas, or produced water.

These changes do not change the conclusions or findings of the draft EIR; therefore, no further changes are needed to address this comment.

O37-32

The comment references page 4.11-21 in the draft EIR and states that "the change in land use designations and new requirements for discretionary review would turn existing ministerial actions into discretionary permits" and that this change is "a Class II Significant Impact" under Impact 4.11-1. It is not clear from review of this comment or from review of draft EIR page 4.11-21 what "change in land use designations" and "new requirements for discretionary review" the commenter is referring to. The reference to a "Class II Significant Impact" is also unclear. The draft EIR impact analysis conducted for Impact 4.11-1 is summarized below. No further response to the issues raised in this comment can be provided.

Impact 4.11-1 requires evaluation of whether implementation of the 2040 General Plan would result in physical development that is incompatible with existing land uses, architectural form or style, site design/layout, or density/parcel sizes within any communities. As described on page 4.11-19 of the draft EIR, by making refinements to the Existing Community and Urban land use designations of the existing general plan, the 2040 General Plan would more clearly distinguish among land uses allowed within each designation and set forth maximum

development density and intensity standards. Further, the refined land use designations of the 2040 General Plan would result in future development that is compatible with the land uses, densities, and parcel sizes of existing communities. Therefore, as described on page 4.11-21 of the draft EIR, policies and programs in the 2040 General Plan would not result in physical development that is incompatible with existing land uses, architectural form or style, site design/layout, or density/parcel sizes within existing communities. Impacts were determined to be less than significant and therefore, no mitigation is required.

O37-33 The comment asserts that Section 4.12, “Mineral and Petroleum Resources,” provides an “incomplete” regulatory setting; noting that the regulations presented are “a small fraction of the comprehensive regulatory oversight for oil and gas operations in California.” The comment refers to Attachment 4 to the main body of the letter, which provides a 15-page list of regulations. The comment does not, however, provide any evidence that specific regulations are absent from the regulatory setting that would inform the analysis or conclusions in the draft EIR. The County is not required to include a complete accounting of all regulations that pertain to the petroleum industry in the draft EIR. The State CEQA Guidelines, Section 15125 indicate that “the environmental setting shall be no longer than is necessary to provide an understanding of the significant environmental effects of the proposed project and its alternatives.” Therefore, no revisions to the draft EIR have been made in response to this comment. Note, however, that the County has revised the regulatory setting to include an enhanced discussion of CALGEM’s regulations. Refer to Chapter 3, “Revisions to the Draft EIR.”

All comment letters submitted to the County on the draft EIR are provided with complete attachments in Attachment 1 to this final EIR.

O37-34 The comment states that the draft EIR includes a “potentially significant underestimate” of the loss of availability of a known petroleum resource of value to the region and residents of the State because Background Report Figure 8-10 maps petroleum fields, which do not correspond to the known extent of recoverable reserves. Although the commenter makes specific factual assertions regarding the known existence of oil reserves not reflected in the Background Report Figure 8-10, the comment does not explain or cite substantial evidence supporting its asserted facts. As a result, the comment’s accuracy is not known and cannot be independently assessed. Regardless, the comment’s factual assertions, even if accurate, do not affect the analyses or conclusions of the draft EIR and therefore no revisions have been made in response to the comment. Refer to Master Response MR-4, Section MR-4.L, “Oilfield Reserves,” regarding the findings and conclusions related to access to oil reserves.

Figure 8-10 is referenced in the analysis of the potential for the 2040 General Plan to result in development near mapped petroleum resources (Impact 4.12-3 beginning on page 4.12-11). As explained in the draft EIR, this impact would be significant and unavoidable because there are no actions or policies that the County could feasibly mandate to fully reduce the impact that Policy COS 7.2 would have on hampering or precluding access to petroleum resources (see draft EIR page 4.12-22). Expanding the analysis to include a map of the full extent of

potential petroleum reserves would not substantially affect the analysis or conclusions of the draft EIR; although it demonstrates that reserves may extend beyond the oil fields mapped used in the analysis, which could reduce the anticipated effect on access to petroleum reserves. The analysis of loss of availability of a known petroleum resources in Impact 4.12-4 (beginning on page 4.12-22 of the draft EIR) similarly relies on mapped petroleum fields. To the extent actual petroleum reserves are larger than depicted in the mapping, this could reduce the anticipated effect of the 2040 General Plan by permitting further flexibility in well siting and access to pipelines. Therefore, reliance on maps of petroleum fields has not resulted in an underestimate of impacts.

- O37-35 Refer to Master Response MR-4, Section MR-4.L, “Oil Reserves,” for a discussion of the estimated reserves in Ventura County.
- O37-36 Refer to Master Response MR-4, Section MR-4.H, “Buffers (Setback),” and Section MR-4.E, “Applicability of Reference Studies for Oil and Gas Operations,” regarding the findings and conclusions related to setbacks and the adequacy of the reports relied upon for these findings and conclusions. With respect to the commenter’s raising the potential for inconsistency in treatment of hazards, Section 4.9, “Hazards, Hazardous Materials, and Wildfire,” in the draft EIR addresses specifically the threat of upset and accident conditions, while Policies COS-7.2 and COS-7.3 address the risks associated with air quality and safety conditions during normal operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- O37-37 The comment notes that page 4.12-18 in Section 4.12, “Mineral and Petroleum Resources,” mentions Assembly Bill 345 and inaccurately states that Mitigation Measure “relies” on this proposed legislation. In fact, page 4.12-18 is the analysis of Impact 4.12-3 (Result in Development on or Adjacent to Existing Petroleum Resources Extraction Sites or Areas Where Petroleum Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Access to the Resources). The analysis of the 2040 General Plan, which includes setback requirements in Policy COS-7.2, on page 4.12-18 describes the setback requirements in the bill and accurately notes:
- The bill was removed from the docket for the 2019 legislative session but will be eligible for consideration again in 2020. The above discussion presents the potential benefits of the proposed setback policies designed to protect sensitive receptors from adverse health and safety outcomes related to nearby oil and gas development.
- Therefore, Assembly Bill 345 informs the discussion. It has not been applied as if adopted regulation. No revisions to the draft EIR have been made in response to this comment.
- O37-38 The comment suggests that Policy COS-7.2 would result in a reciprocal buffer requirement that would apply to both new discretionary oil wells and other

development, including housing. It asserts that the draft EIR should analyze the impacts of the buffer requirement for housing on the availability of affordable housing. However, the language of Policy COS-7.2 does not support the comment's claims. For one, the policy requires that new discretionary oil wells be located specified distances from residential dwellings and schools; it does not apply to the location of new residential dwellings or housing. Policy COS-7.2 states: "The County shall require new discretionary oil wells to be located a minimum of 1,500 feet from residential dwellings and 2,500 from any school." As revised through Mitigation Measure PR-1 in the draft EIR, the policy would read: "The County shall require that new discretionary oil and gas wells be sited a minimum of 1,500 feet from the well head to sensitive use structures which include dwellings, childcare facilities, hospitals, health clinics, and school property lines."

Moreover, requiring new discretionary oil wells to be located certain distances from existing residential dwellings and schools would not affect or limit existing or new affordable housing. Specifically, it would not eliminate existing affordable housing (Impact 4.14-1), induce substantial unplanned growth (Impact 4.14-2), or result in low-income employment that could generate demand for new housing that exceeds the County's inventory of land to develop low-income housing (Impact 4.14-3). For these reasons, no revisions have been made to the draft EIR in response to this comment.

- O37-39 Refer to Master Response MR-4, Section MR-4.E, "Applicability of Reference Studies for Oil and Gas Operations," regarding the validity of relying on this and related reports.
- O37-40 Refer to Master Response MR-4, Section MR-4.I, "Directional Drilling," regarding the findings and conclusions of the draft EIR related to directional drilling.
- O37-41 Refer to Master Response MR-4, Section MR-4.B, "Antiquated Permits and Takings," regarding vested rights and takings of private property.
- O37-42 Refer to Master Response MR-4 for Oil and Gas, Section MR-4.K, "Effects Outside the Study Area," regarding the findings and conclusions related to analysis of effects outside the study area.
- O37-43 Refer to Master Response MR-4, Section MR-4.B, "Antiquated Permits and Takings," regarding antiquated permits, vested rights, and takings of private property.
- O37-44 Refer to Master Response MR-4, Section MR-4.D, "Mitigation Measures and the Role of the Board of Supervisors," and Section MR-4.G, "Pipeline Requirements," regarding the findings and conclusions related to pipelines.
- O37-45 The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to Master Response MR-4, Section MR-4.F, "Flaring," regarding the findings and conclusions related to flaring. Additionally, the commenter indicates that the draft EIR provides no substantial evidence for the assertion that Policy COS-7.8 could effectively prohibit new discretionary oil and gas wells throughout the county.

The draft EIR (pages 4.12-24 to 25) presents an assumption for purposes of the EIR analysis that any existing oil wells located within a 2-mile radius of a major oil or gas transmission pipeline could be connected to these transmission lines through smaller gathering or minor pipelines. Furthermore, it assumes that these facilities have the operational ability to meet the American Petroleum Institute (API) gravity thresholds and standards required to convey their oil through a major oil transmission pipeline.

Conversely, it is also assumed that the 472 active and idle oil wells (Figure 4.12-4, page 4-12-25) located outside the 2-mile radius of a major transmission pipeline are not connected to these lines. And that these oil operators would not have the operational ability to meet the API gravity thresholds and standards required to convey their oil through a major oil transmission pipeline. Therefore, it is assumed that most operators located beyond the 2-mile radius of a major transmission pipeline would not be able to comply with the pipeline requirements of Policy COS-7.7 due to the technological and economic infeasibility of installing lengthier pipelines greater than 2 miles from new oil wells to a major oil transmission lines or due to the additional on-site production facilities to process crude oil in order to comply with API gravity thresholds and standards in order to convey oil through a major oil transmission pipeline.

The draft EIR also acknowledges that the 3,545 active and idle oil wells (Figure 4.12-4, page 4-12-25) located within the 2-mile radius of a major oil transmission pipelines represent a larger clustering of these operations which is likely a function of greater opportunities for oil extraction and technological or economically feasible access to a major oil transmission line. However, those oil operators within the 2-mile radius of a major oil transmission pipeline may be effectively prohibited by Policy COS-7.7 if connection to existing smaller gathering or minor pipelines, which can connect to a major oil transmission pipeline, or additional on-site production facilities to process crude oil in order to comply with API gravity thresholds and standards in order to convey oil through a major oil transmission pipeline, are not technologically or economically feasible.

The draft EIR acknowledges and discloses that Policy COS-7.7 may prohibit the development of new oil and gas wells in the unincorporated areas of the county and cause a potentially significant under Impact 4.12-4 (Result in the Loss of Availability of a Known Petroleum Resource That Would Be of Value to the Region and the Residents of the State) on page 4.12-22. The draft EIR also indicates that with implementation of Mitigation Measure PR-2 (Revised Policy COS-7.7: Limited Conveyance for Oil and Produced Water), this impact would be reduced to less than significant. Based on the analysis presented in the draft EIR and Mitigation Measure PR-2 which would reduce this impact to less than significant, the commenter's assertions do not affect the findings of the EIR and no additional changes are required.

Additional comments from this letter are acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopted a Final 2040 General Plan.

O37-46 Refer to Master Response MR-4, Section MR-4.A, “County’s Authority to Regulate Oil and Gas Development,” and Section MR-4.B, “Antiquated Permits and Takings,” regarding policy issues, police power preemption, antiquated permits, vested rights and takings of private raised by this comment. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

O37-47 This comment addresses the draft EIR’s discussion of two alternatives considered but rejected from further evaluation: Section 6.4.4, Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative, and Section 6.4.5, Eliminate or Reduce Existing Oil and Gas Wells or Production Alternative. The comment states that the draft EIR analysis of alternatives considered but not evaluated further is not adequate because the rationale for rejection of alternatives is not provided. Thus, the commenter concludes that the draft EIR should be recirculated.

Regarding the Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative, the comment references the draft EIR discussion of reasons the alternative was rejected from detailed consideration (page 6-9), which states that it was rejected, in part, because major elements of this alternative are already included in the 2040 General Plan, including Policies COS-7.2, COS-7.8, and COS-7.9. Policy COS-7.2 would require that new oil wells subject to discretionary approval are located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school. Policy COS-7.8 would require oil wells to use pipelines to convey oil and produced water (rather than trucking) and Policy COS-7.9 would require that gases emitted from all new discretionary oil and gas wells are collected and used or removed for sale or proper disposal (rather than flaring) except for cases of emergency or for testing purposes.

After referencing the draft EIR discussion of reasons the alternatives was rejected, the commenter then asserts that the Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative was not actually rejected from further consideration in the draft EIR, and that the draft EIR does not provide any reasons for rejection of this alternative, because the 2040 General Plan includes major elements of this alternative. This is not the case. The draft EIR properly rejects this alternative from further consideration in the analysis of alternatives to the 2040 General Plan (Chapter 6), in part, because of its similarity to the 2040 General Plan. The draft EIR does not dispute that the 2040 General Plan includes major elements of the Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative, rather it explicitly acknowledges this. This alternative was also rejected from detailed consideration in the draft EIR because it focuses on one specific land use and does not comprehensively address most of the basic project objectives (draft EIR page 6-9).

Regarding the Eliminate or Reduce Existing Oil and Gas Wells or Production Alternative, the comment references draft EIR discussion of the reasons for rejection and feasibility issues and provides commentary on what the draft EIR

“attempts” to do with this discussion. The comment asserts that the reasons for rejection of this alternative are at odds with an ongoing effort by the County that is separate from the 2040 General Plan to consider amending its zoning ordinances to require a discretionary permit modification to authorize new oil and gas developments under antiquated use permits. These comments addressing the Eliminate or Reduce Existing Oil and Gas Wells or Production Alternative are not related to the adequacy of the draft EIR and no revisions to the draft EIR are required. Contrary to the commenter’s statement, the alternatives analysis in the draft EIR meets CEQA requirements. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

O37-48 This comment is a concluding statement and does not raise a significant environmental issue for which a response is required.



February 27, 2020

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, California 93009

RE: General Plan Update Draft Environmental Impact Report Comment – Economic Impact of General Plan Policies

Via email: GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

The Western States Petroleum Association (WSPA) and the California Independent Petroleum Association (CIPA) are non-profit trade associations that represent member companies who produce the vast majority of petroleum products in California. Our member companies deliver reliable and safe products that sustain our way of life and drive economic opportunity.

WSPA & CIPA also represent the interests of Ventura residents throughout the County who depend on affordable, reliable and sustainable energy. We need to power the needs of the County's vibrant economy while supporting upward mobility for disadvantaged communities, many of whom suffer from high electricity rates, high gas prices, and high cost of living.

We appreciate the opportunity to submit this joint letter on behalf of our member companies and all Ventura residents in support of policies that are socially, economically, and environmentally responsible.

The oil and gas (O&G) production industry has been an economic force in Ventura County for more than a century. The industry is responsible for \$36 million in state taxes and \$20 million in local taxes annually in Ventura County. The local taxes support school districts, public safety, and other vital services within the County.

O38-1

*CIPA | 1001 K Street, 6th Floor
Sacramento, CA 95814*

*WSPA | 1415 L Street, Suite 900
Sacramento, CA 95814*

Ventura County Resource Management Agency
 February 27, 2020
 Page 2

Crude oil production in the County totaled 6.9 million barrels in 2018, making Ventura the fourth largest oil producing county in California.¹ This production, which accounts for slightly over 4 percent of the statewide total, plays an important role in reducing California’s dependence on oil from remote foreign sources in the Middle East and South America – countries that do not apply California’s stringent safety, labor, human rights and environmental standards.

O38-1
 cont.

Ventura County oil and natural gas producers are proud to employ thousands of highly trained residents who safely and responsibly operate critical energy infrastructure across the County under the world’s most stringent safety, labor and environmental standards. Ventura’s oil and natural gas are produced under the strictest environmental standards on the planet. The industry is overseen by more than 20 federal, state and local government agencies.

The Draft Environmental Impact Report (DEIR) lacks an analysis on the economic impact the policies included in the General Plan Update (GPU) will have on the communities of Ventura County. Ventura County’s GPU will significantly shape the ability of business to invest and grow in the County over the next 20 years. This update will affect employment opportunities, tax revenues and public services in the County for a generation.

Specifically, the GPU has six provisions directly affecting the oil and gas production industry that will cumulatively have a major negative economic impact on County residents, workers, and tax revenues:

1. Requires County to evaluate the feasibility of a local tax on new oil and gas operations located in the unincorporated county (COS 8.1)
2. Imposes a 1,500-foot setback from sensitive land uses for new wells (COS 7.2)
3. Requires new development to be powered by electricity from 100% renewable sources, if feasible (COS 7.4)
4. Prohibits trucking of crude oil or produced water from new wells except for emergencies and testing. (COS 7.7)
5. Restricts flaring of natural gas on new wells except for emergencies and testing. (COS 7.8)
6. Requires evaluations of WST and EOR projects for seismic, groundwater, greenhouse gas emission, and other impacts. (COS 7.4)

O38-2

The provisions mentioned above, taken together, will eliminate a large portion of the projected 2,700 jobs and \$28 million per year in local revenues projected to be attributable to the industry by 2031. The loss in local revenues would put at risk funding for schools, public safety, and other vital government services. In support of these projections, we respectfully submit the

¹ Natural gas production in the County totaled a 6.2 billion cubic feet in 2018 (1.1 million barrels of oil equivalent), just under 4 percent of the statewide total. All of the gas is “associated gas,” produced along with oil extraction.

Ventura County Resource Management Agency
February 27, 2020
Page 3

attached study of the “*Impact of Ventura County’s General Plan Update on the Oil and Gas Production Industry*” prepared by Capitol Matrix Consulting (2020).

We ask that you include an economic impact analysis of the six policies in the GPU DEIR. We also urge you to consider the serious economic ramifications of the proposed GPU provisions as you evaluate their feasibility in accordance with CEQA Guidelines § 15131.

O38-2
cont.

Sincerely,



Cathy Reheis-Boyd
President
Western States Petroleum Association



Rock Zierman
Chief Executive Officer
California Independent Petroleum Association

w/Attachment

| | |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Letter O38 | Western States Petroleum Association and California Independent Petroleum Association Cathy Reheis-Boyd, President February 27, 2020 |
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- O38-1 The description of the role of the commenting organization and the economic importance of the oil and gas industry in Ventura County are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- O38-2 The comment states that the draft EIR does not include analysis of the economic impacts of the proposed 2040 General Plan policies. However, EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR.
- The comment also references an attachment to the main body of the letter. The County has reviewed the attachment(s) and determined that they do not contain comment on the content or conclusions of the draft EIR, nor do they raise any significant environmental issues for which a response is required. All comment letters submitted to the County on the draft EIR are provided with complete attachments in Attachment 1 to this final EIR.



Letter
O39

February 25, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, California 93009-1740
susan.curtis@ventura.org
GeneralPlanUpdate@ventura.org

Request for 90-Day Comment Deadline Extension on the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan

Dear Susan Curtis,

The Wishtoyo Chumash Foundation respectfully requests an extension of the comment period for the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan (State Clearinghouse No. 2019011026). The 45 day comment period, ending February 27th, imposes an inadequate deadline for the public to properly review the (1) Draft EIR which covers complicated issues in 598 pages and six appendices, and (2) the Draft General Plan which is 463 pages and four appendices.

In order for The Wishtoyo Foundation to meaningfully review the Draft General Plan and DEIR and ensure there are no significant potential impacts to natural cultural resources and the environment, we request that the County of Ventura extend the deadline to May 27th, 2020. This extended deadline will allow for a more comprehensive review of the Draft General Plan and DEIR.

Thank you for your consideration.

Respectfully,

Tevin Schmitt
Watershed Scientist
Wishtoyo Chumash Foundation
tschmitt@wishtoyo.org

O39-1

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|-----------------------|-----------------------------------------------------------------------------------------------|
| Letter O39 | Wishtoyo Chumash Foundation Tevin Schmitt, Watershed Scientist February 25, 2020 |
|-----------------------|-----------------------------------------------------------------------------------------------|

O39-1 The draft EIR was available for a 45-day review period from January 13, 2020, to February 27, 2020, in compliance with the California Environmental Quality Act (Pub. Res. Code, § 21091). The commenter’s request for extension of the comment period has been noted. No extension of the comment period was granted.

Noelle C Burkey
Chief Executive Officer
The Wood-Claeyssens Foundation
P.O. Box 30586
Santa Barbara CA 93130-0586

Letter
O40

February 21, 2020

Attn: RMA Planning Division
General Plan Update
800 S. Victoria Avenue, L#1740
Ventura, CA 93009-1740

Dear Planning Division:

I have serious concerns about some of the language in the Draft EIR.

Page 2-17 Ag Mitigation AG-2

Loss of farmland, requires purchase of like kind land at 2-1 ratio to be placed into a conservation easement. This is not practical. There is very little land available in the County for sale and this would be cost prohibitive. Was this the intent? Needs additional discussion and evaluation. O40-1

The EIR recognizes that "water for irrigation will be reduced as a result of the implementation of the 2040 General Plan."

Since there is no actual policy that states "we will reduce water for irrigation," the County did not analyze this impact. Although they state the impact will occur as a direct RESULT of their policies. Simply not acceptable. O40-2

The Courts are extremely clear that the EIR must analyze for all reasonably foreseeable impact that result from implementation of the "project." O40-2

Additionally, the intent of CEQA EIR impact analysis is to evaluate the potential impact of development/policies on future access to oil reserves. However, Section 4.12 primarily evaluates the impact of oil and gas production on H&S. The County's analysis does not meet the intent and standard of review for CEQA. O40-3

In summary, CEQA mandates that the EIR contain sufficient detailed data to allow the reader to understand and evaluate the County's impact analysis. The EIR and its 1,000-page Background Report and filled with errors, vague statements and outdated information. All the information is older than 2015. The maps in the EIR and Background Report are not legible and therefore not useful. O40-3

I urge you to take the time to correct and recirculate the EIR. O40-4

Thank you.

Sincerely,

Noelle C Burkey
Chief Executive Officer
The Wood-Claeyssens Foundation

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| Letter O40 | The Wood-Claeyssens Foundation Noelle C Burkey, Chief Executive Officer February 21, 2020 |
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- O40-1 Refer to Master Response MR-5 for a discussion of the feasibility of Mitigation Measure AG-2.
- O40-2 The text provided by the commenter in quotes—“water for irrigation will be reduced as a result of the implementation of the 2040 General Plan”—is not found on page 2-17 of the draft EIR. The quoted text is also not found in Section 4.2, “Agriculture and Forestry Resources.” The quoted text does not accurately reflect the conclusions of the draft EIR. Refer to response to comment A13-11.
- The comment also includes the incorrect assertion that Section 4.11, “Minerals and Petroleum Resources,” does not evaluate the effects of the 2040 General Plan on access to oil reserves. Refer to the discussion of Impact 4.12-3 (Result in Development on or Adjacent to Existing Petroleum Resources Extraction Sites or Areas Where Petroleum Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Access to the Resources) beginning on page 4.12-11 of the draft EIR.
- O40-3 Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- O40-4 The comment requests that the County correct and recirculate the draft EIR. For the reasons provided in responses to comments O40-1 through O40-3, above, the draft EIR is adequate. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

2.6 INDIVIDUALS

From: Adam Vega <adam@pestidereform.org>
Sent: Thursday, February 27, 2020 4:58 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan Comments

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|----------------------|
| Letter 11 |
|----------------------|

CAUTION: If this email looks suspicious, DO NOT click. Forward to
Spam.Manager@ventura.org

Susan,

I feel there is a great opportunity to improve the Food Security (8.4) section of our General Plan. I've included a link to the Santa Barbara Food Action Plan for your review. From this plan I've gleaned language which I feel is vital for your consideration!

<https://www.sbcfoodaction.org/wp-content/uploads/2016/09/SBC-Food-Action-Plan-2016FinalReport-update.pdf>

INVEST IN OUR FOOD ECONOMY

Invest in Our Food Economy calls us to support a new, diverse generation of food and farming entrepreneurs with training, education, preferential purchasing policies, and investments in food distribution infrastructure. These upstream investments are designed to pay increasing dividends over time as these entrepreneurs build local businesses and create jobs.

- Support the next generation of farmers and food system entrepreneurs by creating or expanding agriculture and vocational education at the high school and community college level.

I1-1

INVEST IN OUR HEALTH & WELLNESS

Invest in Our Health & Wellness

Calls us to address the continuing diet-related challenges in our community by creating networks of neighbor-to-neighbor support, and by engaging employers, teachers, and physicians as partners to promote healthy living. The strategies focus on the information gaps that make it hard to make good health choices.

- Facilitate the adoption and implementation of workplace wellness policies that include support for healthy eating behaviors and access to healthy foods.

Thank you,

Adam

—
Adam Vega
 Pesticide Community Organizer
 Californians for Pesticide Reform
[4225 Saviers Rd., Oxnard, CA 93033](http://4225SaviersRd.com)
 Phone: (805) 312-6875
www.pestidereform.org
Working together for a just & sustainable food system since 1996

| | |
|----------------------|---------------------------------------|
| Letter I1 | Adam Vega February 27, 2020 |
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I1-1 The comment suggests additional topics that could be considered in the 2040 General Plan—namely that the Santa Barbara Food Action Plan should be considered in Section 8.4, “Food Security”—and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: Alda Perry <aldaperry@gmail.com>
Sent: Wednesday, February 26, 2020 12:35 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

Letter
12

To: Ms Susan Curtis

Ventura County’s proposed 2040 General Plan is based on a flawed and deficient analysis of the impacts this proposal will have on agriculture, water supplies, and wildfire risk. State law, under the California Environmental Quality Act (CEQA), requires an “environmental impact report” (EIR) be prepared to evaluate and analyze the impact of the proposed changes. The County has not complied with CEQA because of its reliance on an inadequate and hurriedly compiled EIR.

I2-1

A few of the "big issues:"

- 1) CEQA requires that any mitigation measures proposed in the EIR be technically and economically feasible. But many of the County’s proposed mitigation measures are infeasible.
- 2) CEQA requires that the EIR use accurate and detailed data in the analysis. But the EIR and its 1000+page Background Report are filled with errors, vague statements and outdated information.
- 3) CEQA demands that any policies that increase wildfire risk be analyzed. Yet the EIR doesn't even mention policies from the General Plan that will significantly increase fuel load in high fire risk areas.
- 4) CEQA requires that both direct and indirect impacts be analyzed. Yet the County simply fails to analyze the impact of competition for water supplies on agriculture, even though the EIR admits that the increased development resulting from the General Plan will result in less water for irrigation.

I2-2

I2-3

I2-4

A significant **indirect** impact required to be addressed by CEQA has not been analyzed in the development of the new General Plan. The County failed to analyze or propose mitigation for any indirect significant impacts on agriculture from the buildout that will occur from the 2040 General Plan.

As a resident of Ventura County and a committed Ventura County farmer^[1] for over 40 years, and a member of a Ventura County farming family for over 150 years, I have seen that complaints from encroaching urban uses will mandate changes in normal farming practices. This most recent example of this is the new hemp cultivation set back.

I2-5

As population grows, there will be more and more complaints of dust, odors, water use, types of crops grown. There will be more theft and vandalism^[2] - which increases costs to the farmer and cause the County to pass new rules that put more restrictions on agriculture.

The County did not discuss these indirect impacts in their analysis, and they did not propose any mitigation to reduce this impact. The County needs to fully evaluate how encroaching development will impact the long-term sustainability of agriculture in the County and propose mitigation that addresses impacts in a way that reduces restrictions on agriculture.

Based on the substantial flaws and deficiencies of the EIR relied on by the County in its design of the new General Plan, as a citizen and farmer, I demand that the County correct and re-circulate the EIR.

I2-6

Thank you for your attention to my concerns.

Alda L. Perry

[1] Our ranch has been contracted with the County for many years under the Williamson Act.

[2] Just last month our ranch suffered an avocado theft. See Crime Report Number 20-8138. In recent years we have had our well disabled **twice** in a thief’s effort to steal the copper wiring that runs from the electrical box to the submersible pump approximately 700 feet in the ground. Before that we had several hundred feet of chain-link fencing ripped out by a vandal who stole a neighbor’s tractor and ran it into the fence. Our ranch is in a very remote area, yet we still suffer from encroaching “civilization.”

I2-5
cont.

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| Letter I2 | Alda L Perry February 26, 2020 |
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- I2-1 This comment regarding the adequacy of the analysis of impacts related to agricultural resources, water supply, and wildfire risk in the draft EIR is noted. The comment also states that proposed mitigation measures are infeasible; however, no specifics are provided. The California Environmental Quality Act (CEQA) requires that an EIR identify potentially feasible mitigation. The ultimate determination of mitigation feasibility will be made by the lead agency, in this case the County, at the time a decision is rendered about whether to approve the project. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

- I2-2 The commenter’s statement about the accuracy and level of detail in the Background Report are noted. Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.

- I2-3 The comment states that the draft EIR does not mention policies that would increase fuel load in high fire risk areas; the comment does not identify any specific policies that are missing from the draft EIR analysis. The comment’s statement is not correct. Section 4.9, “Hazards, Hazardous Materials and Wildfire,” in the draft EIR lists proposed policies and implementation programs related to wildfire risks on pages 4.9-6 through 4.9-10, including Policies HAZ-1.8, COS-1.15, COS-3.2, and Implementation Program C. Also, see response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation to increase wildland fire hazard.

- I2-4 The comment states that the draft EIR does not analyze the impact of competition for water supplies on agriculture, and further states that the draft EIR does not include this analysis even though increased development under the 2040 General Plan would result in less water for irrigation.

Despite the framing in the comment, the draft EIR does not conclude that a reduction in available water resources for irrigation is a significant impact. This is provided as an example of an indirect impact in the draft EIR on page 4.2-3. A reduction in available water resources that causes the loss or conversion of farmland to non-agricultural use is not a potential impact of the project and is, therefore, appropriately excluded from the draft EIR impact discussion. First, it is important to note that the 2040 General Plan does not direct a certain amount of development; rather, it accommodates projected development. In terms of water demand, as explained in draft EIR Impact 4.17-4, Mitigation Measure UTL-1 would require that “water-demand projects,” as defined by State law, that require service from a public water system prepare a water supply assessment before project approval. Mitigation Measure UTL-1 demonstrates that new development accommodated by the 2040 General Plan would not take water supplies away

from existing users such as existing agricultural users. As a result, it is not expected that development facilitated by the 2040 General Plan would result in competition for water resources that would cause fallowing of farmland, conversion or loss of agricultural resources, or other impacts to agricultural resources. The draft EIR, therefore, properly excludes indirect impacts to agriculture from a reduction in available water resources.

I2-5

The comment states that the draft EIR does not analyze indirect impacts on agriculture resulting from buildout of the 2040 General Plan. The comment asserts that encroaching urban uses will result in changes in farming practices and that population growth will result increased in complaints about dust, odors, water use, types of crops grown, and result in more theft and vandalism.

The draft EIR analyzes the potential for development under the 2040 General Plan to result in conflicts with classified farmland in Impact 4.2-2 (starting at page 4.2-17) and conflicts with Land Conservation Act (LCA) contracts and Agricultural Preserves in Impact 4.2-3 (starting at page 4.2-18). The draft EIR explains that the County maintains a number of policies and programs to protect agriculture land uses and prevent conflict between agricultural and non-agricultural land uses. The 2040 General Plan also includes policies and programs to protect agricultural land uses from encroachment of adjacent non-agricultural land uses. Refer to draft EIR Impacts 4.2-2 and 4.2-3 for a discussion of nuisance issues that can arise from conflicts between agricultural and non-agricultural land uses; discussions of nuisance complaints can be found on pages 4.2-17 and 4.2-19 of the draft EIR. Policy AG-2.3 of the 2040 General Plan, listed on page 4.2-10 of the draft EIR, refers to the County's Right-to-Farm Ordinance, which shall be maintained and updated as needed to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas. The County's Agricultural/Urban Buffer Policy, discussed on pages 4.2-18 and 4.2-20 of the draft EIR, protects the economic viability and long-term sustainability of agriculture in the unincorporated area. This policy conditions urban developments or non-agricultural uses to provide and maintain a 300-foot setback and chain-link fence on the non-agricultural property use, or a 150-foot buffer/setback if a vegetative screen is used. This policy would substantially lessen the potential conflict LCA contracts or agricultural preserves (AGP) by requiring buffers or screening between specified agricultural and non-agricultural land uses to prevent or minimize conflicts that may arise at the interface of agricultural lands and urban structures or ongoing non-farming activities.

Impact 4.2-2 concludes that:

Future development under the 2040 General Plan would not be expected to result in adverse impacts to agricultural uses by locating non-agricultural development near classified farmland due to policies and programs that limit conflicts to agricultural uses, establish buffers between crop production, orchard production, classified farmland and nonagricultural uses, to minimize agricultural land conversion. Future growth and development are expected to occur near or within existing

community boundaries and cities, pursuant to the Guidelines for Orderly development. Therefore, the potential for conflicts would be minimal. This impact would be less than significant (page 4.2-18).

Impact 4.2-3 concludes that:

No direct land use conflicts with existing LCA contracts would occur as a result of the land use diagram of the 2040 General Plan because it would not change the land use designation of any land under an existing LCA contract. No environmental impacts associated with residential development adjacent to any land under LCA/Williamson Act Contracts and AGP are expected to occur due to the protections and guidelines established in policies and programs that limit conflicts with agricultural uses and establishment of buffers between most agricultural and nonagricultural uses. Future growth and development are expected to occur near or within Existing Community area designation (boundary) and Urban area designation (boundary), pursuant to the Guidelines for Orderly development. This impact would be less than significant (page 4.2-20).

Regarding theft and vandalism, these impacts would not be significant because EIRs are not required to speculate about a project's environmental impacts (State CEQA Guidelines, § 15145). The commenter does not present evidence that theft and vandalism would occur to such an extent as a result of the 2040 General Plan that agricultural uses or operations would cease to exist, although the County acknowledges that such activities occur in the existing condition and may occur to some degree in the future (e.g., stolen equipment, illegal picking, litter tossed into fields). Moreover, the plan area includes law enforcement services (e.g., to address theft, vandalism). As a result, a discussion of the impacts of theft and vandalism on agriculture is appropriately excluded from Impact 4.2-2.

CEQA requires that an EIR "describe feasible measures which could minimize significant adverse impacts" (State CEQA Guidelines, § 15126.4(a)(1)). As described for Impact 4.2-2, indirect and direct conflicts between agriculture and adjacent non-agricultural uses as result of 2040 General Plan implementation would be less than significant. As described for Impact 4.2-3, conflicts between residential development and any land under LCA contract or AGP would also be less than significant. As a result, no mitigation is required.

Also refer to response to comment A13-3 regarding Urgency Ordinance 4558.

I2-6

Note that the draft EIR analyzes the potential environmental effects of implementing the 2040 General Plan; it was not used to design the plan under evaluation. Regarding the comment that the draft EIR should be recirculated, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required, and the responses above that demonstrate the adequacy of the draft EIR with respect to the issues raised by the commenter.

From: Ally Gialketsis <info@email.actionnetwork.org>
Sent: Saturday, February 22, 2020 7:04 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

Letter
I3

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

I3-1

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I3-2

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I3-3

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Ally Gialketsis
agialketsis@gmail.com
380 Teloma Drive
Ventura, California 93003

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Ally Gialketsis
agialketsis@gmail.com
 380 Teloma Drive
 Ventura, California 93003

| | |
|----------------------|---------------------------------------------|
| Letter I3 | Ally Gialketsis February 22, 2020 |
|----------------------|---------------------------------------------|

I3-1 The comment expresses concern about climate change. The comment summarizes the anticipated consequences of anthropogenic climate change. The comment expresses a desire for “strong climate policy” in the 2040 General Plan and a goal of carbon neutrality by 2045. It is not related to the adequacy of the draft EIR. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

The County has completed a California Environmental Quality Act-compliant analysis of the environmental impacts that can be reasonably anticipated to result from implementation of the 2040 General Plan. For a full discussion of the potential for development in the county to result in greenhouse gas (GHG) emissions that could contribute to climate change, refer to Section 4.8, “Greenhouse Gas Emissions,” in the draft EIR.

I3-2 The comment asserts that GHG emissions must be inventoried using the most current climate change science. GHG emissions for the unincorporated county in 2015 are summarized in Table 4.8-1 on page 4.8-5 of the draft EIR. Page 4.8-4 includes a discussion explaining the methodology used to determine these levels of emissions. To reiterate what is explained in the draft EIR, the 2015 community-wide GHG inventory was prepared using the U.S. Community Protocol for Accounting and Reporting of GHG Emissions, Version 1.1 with the most recent global warming potential (GWP) values derived from the Intergovernmental Panel on Climate Change’s Fifth Assessment Report, which is the most recently published assessment report. These global warming potential values represent the current climate change science and are appropriate for use in this analysis. The comment does specifically address the adequacy of the draft EIR. Therefore, no further response can be provided.

I3-3

The comment introduces potential mitigation that could be applied to sources of GHG emissions within the plan area such as a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes. Similar policies and programs were considered by the County and integrated into the 2040 General Plan. The 2040 General Plan provides a systematic approach to reasonably attainable GHG emission reductions.

The draft EIR evaluates the environmental effects of the 2040 General Plan, which contains policies to reduce GHG emissions throughout the unincorporated county. The language of the 2040 General Plan is considered a component of the project description as defined by California Environmental Quality Act Guidelines, Section 15124. The draft EIR evaluates the efficacy of the 2040 General Plan policies under the assumption that these policies would be implemented as written and derives a significance conclusion based on these reductions.

The relevant 2040 General Plan policies and implementation programs that would reduce GHG emissions within the plan area are summarized on pages 4.8-11 through 4.8-37 of the draft EIR and, where feasible, these measures are quantified by GHG-emitting sector as shown in Table 4.8-6 of the draft EIR. See Master Response MR-1 for additional discussion of the draft EIR GHG emissions impact analysis and potential mitigation measures to address GHG emissions. Refer to Master Response MR-4, Section MR-J, “Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations), for response to the commenter’s request for a “sunset plan” for oil and gas production.

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Letter
I4

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I4-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I4-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I4-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The

I4-4

costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible. I4-4 cont.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely. I4-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR. I4-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations. I4-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County. I4-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated. I4-9

Sincerely, Andy Ehrhart

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|------------------|------------------------------------------|
| Letter I4 | Andy Ehrhart February 25, 2020 |
|------------------|------------------------------------------|

I4-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

I4-2 The comment expresses concern about the feasibility of Mitigation Measure AG-2, including cost of implementation and potential to prohibit construction of structures that would support agricultural operation. Refer to Master Response MR-5 for a detailed discussion of this mitigation measure.

I4-3 The comment states that the draft EIR does not provide an analysis on increased water cost and diminishing availability of water. As explained in the “Methodology” subsection of Section 4.2, “Agriculture and Forestry Resources,” a reduction in available water resources for irrigation is considered an indirect impact on agricultural resources; this is provided as an example of an indirect impact in the draft EIR on page 4.2-3. A reduction in available water resources that causes conversion of Farmland is not a potential impact of the project and is, therefore, appropriately excluded from the draft EIR impact discussion. As explained in the discussion of Impact 4.17-4 in Section 4.17, “Utilities,” of the draft EIR, Mitigation Measure UTL-1 would require that water-demand projects that require service from a public water system shall prepare a water supply assessment prior to water approval. Mitigation Measure UTL-1 demonstrates that new development accommodated by the 2040 General Plan would not take water supplies away from existing users such as existing agricultural users. As a result, it is not expected that development facilitated by the 2040 General Plan would result in competition for water resources that would cause following of farmland, conversion or loss of agricultural resources, or other impacts to agricultural resources. Impacts to the cost of water due to development caused by implementation of the 2040 General Plan do not need to be addressed in the EIR unless there is a clear association with an adverse effect on the physical environment. The draft EIR therefore properly excludes impacts to agriculture from a reduction in available water resources. Refer to responses to comments A13-11 and O7-4 for further discussion of available water supplies and cost.

I4-4 The comment raises concerns with the economic feasibility of policies proposed in the 2040 General Plan that could affect agricultural operations. Although referenced in the comment as mitigation measures, the subject requirements are proposed in the 2040 General Plan. The draft EIR evaluates the potential physical effects on the environment that could result from implementation of the 2040 General Plan. As discussed further below, social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The financial concerns raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR.

For clarity, Policy AG-5.2 and Policy AG-5.3, encourage a transition to electric- or renewable-powered agricultural equipment and electric- or renewable- powered irrigation pumps, respectively, and do not require conversion of all farm equipment to electric power. Moreover, to address the potential financial implications of these policies, the Agricultural Element of the 2040 General Plan includes Implementation Program J, through which the County would work to identify funding sources or financial incentives that would help offset the cost of the conversion. The economic impacts of these policies were not evaluated in the draft EIR because the California Environmental Quality Act (CEQA) does not require an evaluation of economic impacts of a project unless they result in a physical change in the environment (State CEQA Guidelines, § 15131(a)).

Furthermore, Policy AG-5.2 and Policy AG-5.3 would be implemented via Implementation Program I, Fossil Fuel-powered Equipment Replacement, in the

Agricultural Element. This implementation program requires that “[t]he County coordinate with [Ventura County Air Pollution Control District (VCAPCD)] and electric utilities to develop a program to establish a countywide fossil-fuel powered equipment conversion target, track progress on conversions to renewable energy sourced electric powered systems and provide technical assistance to users considering replacement of pumps.” The requirements of this implementation program are undefined to the point that reasonably foreseeable impacts cannot be determined at this time. The implementation program only requires coordination to establish a target, track progress, and provide technical assistance. The 2040 General Plan contains no requirement for mandatory provisions to be included in the program. Additionally, the County does not have jurisdiction over many types of agricultural equipment, and VCAPCD’s jurisdiction is limited (e.g., it has no authority to regulate mobile emission sources). Therefore, it is not possible to predict a mix of actions—either mandatory and voluntary—and the economic effects of such a program. Moreover, to address the potential financial implications of these policies and programs, the Agriculture Element of the 2040 General Plan includes Implementation Program J, through which the County would work to identify funding sources or financial incentives that would help offset the cost of the conversion. As a result, any economic impacts cannot be characterized and any physical impacts resulting from economic impacts cannot be defined. These impacts are not reasonably foreseeable. Any evaluation of these impacts would be considered speculative under CEQA because of the number of ways such a program could take shape after consultation with the VCAPCD and utilities, and because it is unknown whether any actions would even be mandatory. Therefore, the draft EIR correctly excludes consideration of impacts of Policy AG-5.2 and Policy AG-5.3 from the agricultural impact discussion.

Policies AG-3.2 and AG-3.3 do not limit the use of specific pesticides, fumigants, and fertilizers, but rather encourage and support the use of integrated pest management practices and provide information for how to do so. Similarly, Policy AG-5.1 encourages the use of inorganic, nitrogen-based fertilizers to reduce nitrogen emissions, but does not explicitly require it. The comment does not provide additional information to support the assertion that economic feasibility of these policies will make agriculture “virtually impossible” and cause existing agricultural uses or operations to cease to exist. As discussed above, a lead agency need not speculate about environmental impacts (State CEQA Guidelines, § 15145) and therefore a discussion of the economic impacts of Policies AG-3.2, AG-3.3, and AG-5.1 is excluded from the draft EIR.

- 14-5 The comment expresses concern about the quality and age of the data used in the existing setting to establish the baseline for the CEQA analysis. Refer to Master Response MR-6 for a discussion of the accuracy, timeliness, and level of detail in the Background Report. The comment refers to unspecified detailed studies that must be added to identify impacts and mitigation measures for “the agricultural industry” but it is not clear from the comment what the scope of such studies should be or their relation to the draft EIR analysis of agricultural resources impacts in Section 4.2, “Agriculture and Forestry Resources.” As a result, no further response can be provided.

- I4-6 The comment states that the draft EIR offers limited mitigation related to fire prevention. The draft EIR included a program-level, qualitative assessment of impacts related to wildfires in the Section 4.9, “Hazards, Hazardous Materials, and Wildfire.” There are no mitigation measures proposed in the analysis that would limit agricultural operations to promote fire prevention. There is also no mitigation proposed in Section 4.4, “Biological Resources,” that would limit vegetation management necessary to manage fire risk. Note that the County’s Habitat Connectivity and Wildlife Corridor ordinances, which were adopted in March of 2019 to provide protections for areas designated as important wildlife corridors within the non-coastal unincorporated area, are separate from the 2040 General Plan currently under review.
- Impact 4.9-6 on page 4.9-19 of the draft EIR recognizes exposure of people to risk by wildfire due to the location of development in a High Fire Hazard Area/Fire Hazard Severity Zone as a significant and unavoidable impact. However, federal, State, and local plans and regulations would reduce the risk of wildfire in the plan area by requiring vegetation management and compliance with applicable building codes that require access to adequate fire suppression infrastructure and specify the materials and construction methods for protection against exterior wildfire exposure. Specifically, the 2015 Ventura County Multi-Hazard Mitigation Plan and the Ventura County Community Wildfire Protection Plan contain additional policies, regulations and procedure for handling wildfires and identifies mitigation strategies to minimize impacts related to wildfires. In addition, the 2040 General Plan includes a suite of policies and implementation programs that address a full spectrum of wildfire prevention standards for new development including vegetation management, fire suppression equipment, discouraging development in fire hazard areas, and education programs to prevent wildfires. It should be noted that wildlife corridors are subject to all existing fire prevention regulations of the Ventura County Fire Protection District. See response to comment O32-30 for additional discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation to increase wildland fire hazard.
- I4-7 Refer to response to comment O7-8 regarding potential incompatibilities of agricultural uses with adjacent bicycle and pedestrian paths. The potential for development under the 2040 General Plan to directly cause conversion of farmland to non-agricultural use is addressed in Impact 4.2-1. The draft EIR concludes that impacts would be significant and unavoidable, even after implementation of Mitigation Measures AG-1 and AG-2. This conclusion covers all development undertaken pursuant to the 2040 General Plan, and therefore includes development of bicycle paths.
- I4-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I4-9 The commenter’s request for additional study of the issues raised in this letter, revision of the draft EIR, and subsequent recirculation is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

Ann C. Cooluris
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
I5

FEB 27 10 AM '20

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I5-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I5-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I5-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I5-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I5-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I5-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I5-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I5-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I5-9

Sincerely,



Ann C. Cooluris

| | |
|----------------------|--------------------------------------------|
| Letter I5 | Ann C Cooluris February 24, 2020 |
|----------------------|--------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I5-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I5-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I5-3 Refer to response to comment I4-3 regarding water availability and cost.
- I5-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I5-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I5-6 Refer to response to comment I4-6 regarding wildfires, fire prevention, and the County's Habitat Connectivity and Wildlife Corridor ordinances.
- I5-7 Refer to response to comment I4-7 regarding potential incompatibilities of agricultural uses with adjacent bicycle and pedestrian paths.
- I5-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I5-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Anna Chambers <achambers316@gmail.com>
Sent: Thursday, February 27, 2020 1:01 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan / EIR Comments

| |
|----------------------|
| Letter 16 |
|----------------------|

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

I6-1

I support this letter -

Anna M. Chambers

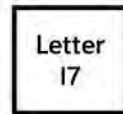
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| Letter 16 | Anna Chambers February 27, 2020 |
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I6-1

The comment asserts that the draft EIR does not evaluate the feasibility of Mitigation Measure AQ-3. As discussed in response to comment O6-12, the California Air Resources Board’s 2017 Technical Advisory: Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways, suggests that people living as much as 1,000 feet from freeways have been adversely affected by poor air quality at night and in the early morning because near-roadway pollution exposure had been previously underestimated. Recognizing this health risk, the draft EIR includes Mitigation Measure AQ-3, which would require that land uses that include sensitive receptors to be setback from specified heavily traveled transportation corridors or undergo a health risk assessment. As explained in the response to comment O6-12, the County has revised Mitigation Measure AQ-3 to reflect the 1,000 foot-setback distance. The mitigation measure does not prevent development from occurring within the setback distance; it requires that a site-specific health risk assessment first be prepared.

Section 4.11, “Land Use and Planning,” does not include the text quoted in the comment as a description of the project under analysis. The impact analysis (page 4.11-18) does describe that “[t]he land use diagram of the 2040 General Plan would accommodate future development of relatively higher intensity residential, commercial, mixed use, and industrial land uses within the Existing Community area designation (boundary) and the Urban area designation (boundary). These are areas with existing residential, commercial, and/or industrial uses developed with urban building intensities generally located adjacent to the boundaries of incorporated cities or along highway corridors such as SR 33, SR 118, SR 126, and Highway 101.”

From: Anna Chambers <achambers316@gmail.com>
Sent: Thursday, February 27, 2020 1:03 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan EIR



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I support the attached letter.

I I7-1

Anna M. Chambers



February 19, 2020

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Director

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC)
County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

I7-2

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as "capable of being accomplished in a successful manner within a reasonable period of time, **taking into account economic, environmental, social, and technological factors**" (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

I7-3

The EIR does not provide evidence of any of the following:

- 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
- 2) The cost per acre to purchase each category of farmland;
- 3) The anticipated cost of establishing a conservation easement for each category of farmland;
- 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
- 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
- 6) Any information that could constitute a "plan" for management of farmland in conservation easements;

Page 2 of 4

- 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
- 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
- 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

I7-3
cont.

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

I7-4

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the potential for conflicts would be minimal. This impact would be less than significant" (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

I7-4
cont.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatically” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

I7-5

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

I7-6

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

I7-7

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

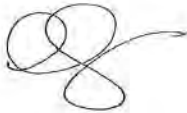
CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

- 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
- 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
- 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

I7-8

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,



Louise Lampara
Executive Director

I support this letter -
Anna M. Chambers

| | |
|----------------------|-------------------------------------------|
| Letter I7 | Anna Chambers February 27, 2020 |
|----------------------|-------------------------------------------|

This comment letter repeats many of the same comments provided in Letter A13. The responses below provide cross references to the portions of Letter A13 where responses to the same comments have already been provided.

- I7-1 The comment references an attachment to the main body of the letter, which is a letter submitted by the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) and included in this final EIR as Letter A13. The County has reviewed the attachment and determined that it raises significant environmental issues for which a response is required. The County’s responses to these issues are provided in response to Letter A13, and these responses are cross-referenced below.

- I7-2 The comment describes that CoLAB has provided the following comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR “that CoLAB believes will negatively impact the viability of local agriculture.” This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

- I7-3 Refer to response to comment A13-7 and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.

- I7-4 Refer to response to comment A13-8 regarding the Right-to-Farm Ordinance and land use conflicts.

- I7-5 Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.

- I7-6 Refer to response to comment A13-10 regarding General Plan Policies AG-5.2 and AG-5.3.

- I7-7 Refer to response to comment A13-11 regarding water resources and loss of topsoil.

- I7-8 Refer to response to comment A13-12 regarding mitigation measure suggestions.

From: Anna Chambers <achambers316@gmail.com>
Sent: Thursday, February 27, 2020 1:03 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on VC Gen Plan DEIR

Letter
18

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I support the attached letter.

I 18-1

Anna M Chambers

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

18-2

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

18-3

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

18-4

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across

18-5

sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

18-5
cont.

I appreciate your consideration.

*I support this letter -
Anna M Chambers*

| | |
|----------------------|-------------------------------------------|
| Letter 18 | Anna Chambers February 27, 2020 |
|----------------------|-------------------------------------------|

- 18-1 The comment references an attachment to the main body of the letter. The County has reviewed the attachment and determined that it raises significant environmental issues for which a response is required. The County’s responses to these issues are provided below.
- 18-2 The comment provides a description of the McLoughlin Family Committee and history of the McLoughlin Family and an opinion of the adequacy of the 2040 General Plan and draft EIR with respect to analysis of impacts on the farming industry. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- 18-3 Table 6-26 in the Background Report summarizes the capital improvement projects for fiscal years 2018 through 2021 identified in the Ventura County Transportation Department’s Capital Improvements Program (CIP). As explained on page 6-87 of the Background Report, the CIP “is an internal programming document that identifies all capital improvement projects (e.g., roads and bridges) the County intends to build, replace or improve over a 20-year horizon...The CIP provides a means for the County to determine the capital improvement projects and funding priorities over a 20-year horizon.” One of the CIP projects listed in Table 6-26 is a feasibility study for widening of Olivas Park Drive from Telephone Road to Seaborg Drive to improve traffic safety. This feasibility study is a project ranked #9 in the Strategic Master Plan, a Ventura County Public Works document that identifies needs and transportation improvements recommended for programming. These are existing infrastructure planning processes that are separate from the 2040 General Plan; therefore, an analysis of the potential effects of these projects is not appropriate in the draft EIR.

The 2040 General Plan does not include any policies specific to Olivas Park Drive or the property owned by McLoughlin Family Committee. Policy PFS-1.6 would prioritize capital improvements that repair and replace inadequate facilities, while Policy AG-2.2 would specifically require that transportation and other capital improvements are planned to “avoid or mitigate impacts to important farmland to the extent feasible.”

- 18-4 The comment raises concerns about the potential for inconsistencies of the 2040 General Plan with the Save Open Space and Agricultural Resources (SOAR) initiative that could result in physical environmental impacts, citing Section 3.2.2, “Relationship to Other Plans and Regulations,” of the draft EIR, which explains that the County SOAR initiative’s Agricultural, Open Space, and Rural goals and policies “are included in the 2040 General Plan with only technical, non-substantive revisions for clarification and internal consistency with the rest of the 2040 General Plan” (draft EIR page 3-8).

The draft EIR does not highlight specific policy language differences between SOAR and the 2040 General Plan; however, the 2040 General Plan does include notes regarding the source of each policy. To ensure consistency with SOAR, all lands in the existing General Plan with a land use designation of Agricultural, Open Space, or Rural located outside of Existing Community and Urban designated areas are maintained unchanged in the 2040 General Plan (see draft EIR page 3-5). Subsequent projects must comply with the 2040 General Plan, as well as SOAR, which is part of the 2040 General Plan itself. Compliance with regulatory requirements is assumed in the draft EIR analysis.

Refer also to Master Response MR-2 regarding the 2040 General Plan’s consistency with SOAR.

- 18-5 The comment anticipates that implementation of the 2040 General Plan would result in broad economic impacts that have not been evaluated in the draft EIR and requests recirculation of the draft EIR.

EIRs are not required to treat a project’s economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Economic effects need only be considered in an EIR where there is a clear link between those effects and physical environmental changes. The comment does not provide evidence to link the general economic issues raised in this comment to any adverse physical changes to the environment not already addressed in the draft EIR. Therefore, no revisions to the draft EIR have been made in response to this comment.

Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Anna Chambers <achambers316@gmail.com>
Sent: Thursday, February 27, 2020 1:04 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: VC Gen Plan DEIR flaws

Letter
19

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I support the attached letter.

I 19-1

Anna M. Chambers

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

19-2

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, "unlike the Preble area, services are not readily available to the Olivas lands." This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is "not included in the City's sanitation district because of problems with water pressure." This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district's pipelines actually traverse our property.

19-3

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

I9-3
cont.

Damaging misstatements about our property also appear In the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I9-4

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.
3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

I9-5

I9-6

I9-7

I9-8

I9-9

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

I9-10

Sincerely,

*I support this letter -
Anna M Chambers*

| | |
|----------------------|-------------------------------------------|
| Letter I9 | Anna Chambers February 27, 2020 |
|----------------------|-------------------------------------------|

- I9-1 The comment references an attachment to the main body of the letter. The County has reviewed the attachment and determined that it raises significant environmental issues for which a response is required. The County’s responses to these issues are provided below.
- I9-2 The history of the McLoughlin family and their land in Ventura County is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I9-3 The comment addresses statements in the Coastal Area Plan, which is a component of the General Plan, relative to property owned by the commenter and is not related to the adequacy of the draft EIR. Therefore, no response is required. Note also that no changes were made to the Coastal Area Plan as part of the preparation of the 2040 General Plan. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer to response to comment I8-3 for a discussion of widening of Olivas Park Drive, which is not a component of the 2040 General Plan.
- I9-4 The comment expresses general concern about the portrayal of a specific property in the draft EIR with respect to access to infrastructure. This property is not specifically described in the draft EIR. The comment does not provide sufficient detail about where such misstatements occur to permit identification and correction. Therefore, no further response is provided.
- I9-5 The comment states that the 2040 General Plan and draft EIR ignore the 28 percent increase in the homeless population in the community. While the origin of this 28 percent figure is unclear, it appears that the commenter is concerned about an existing social condition that the commenter would like the 2040 General Plan to rectify. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

The comment is not related to the adequacy of the draft EIR because the homeless population is an existing condition and EIRs are not required to treat a project’s social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social effects need only be considered in an EIR where there is a clear link between those social effects and physical environmental changes. The homelessness issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR.
- I9-6 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.

I9-7 The comment states that the draft EIR does not adequately address the indirect impacts of implementing the 2040 General Plan and labels such impacts as, “less than significant.” It’s not clear if the commenter is referring to the entire draft EIR or to specific analysis. As explained in the “Approach to Environmental Analysis” (page 4-3 of the draft EIR):

Adverse physical impacts to the environment associated with implementation of the 2040 General Plan are the focus of this environmental analysis. Physical changes could result from subsequent development pursuant to land use designations established in the 2040 General Plan, implementation of policies and implementation programs identified in the 2040 General Plan, and offsite or indirect development that is necessitated by the 2040 General Plan (e.g., new facilities, infrastructure upgrades). For the purpose of this environmental analysis, the types of actions that could result in physical changes to the environment under the 2040 General Plan are referred to collectively as “future development.”

By analyzing the entire “program,” the draft EIR does address the direct and indirect impacts of the project.

I9-8 The comment asserts that the General Plan policies would increase the cost of normal farming operations, which would “make it difficult for farming to remain profitable.” The comment does not provide clear link between this economic effect and physical environmental changes, such as conversion of farmland. EIRs are not required to treat a project’s economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR. For further discussion of specific policies in the 2040 General Plan that could have an economic effect on farming operations, including programs that would provide economic support to agricultural operations, refer to response to comment I4-4.

I9-9 The comment asserts that the impacts of “increased competition for water” are not adequately evaluated in the draft EIR but does not offer specifics about what information is missing or how consideration of additional materials could affect the environmental analysis. The commenter is referred to Section 4.10, “Hydrology and Water Quality,” for an evaluation of the potential effects of implementing the 2040 General Plan on groundwater and surface water quantity and quality, and Section 4.17, “Utilities,” for a discussion of water supply. See also response to comment I4-3. No changes to the draft EIR have been made in response to this comment.

I9-10 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided. Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Aubrey Sloan <asloan5119@gmail.com>
Sent: Tuesday, February 25, 2020 4:14 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on draft General Plan

**Letter
I10**

Ventura County RMA Planning Division,

I'd like to start by thanking the staff for putting this complicated document together and for receiving my input. My name is Aubrey E."Bud" Sloan, I am a local rancher with a significant stake in the outcome of this draft. My main concerns are the potential negative impacts on our county's history: local agriculture.

I10-1

After reviewing the draft EIR, I found Background Report on agriculture to be inadequate, vague and using outdated information. Many of the tables and figures, such as Fig 9-6, table 9-7 are using old data. While this older data can be important in providing background, the EIR references the Background Report as the current conditions, despite this data not being more current than 2015. The Background Report must be updated to reflect current data.

I10-2

There is also an issue with the map (Fig 9-7) which is of such poor quality that is it cannot be used to show any information. This map must be replaced with a higher quality map.

Another major area that leaves the Background Report and document as inadequate is the lack of information around project water demand, supply and pumping costs. This is left out of the Background Report and the entire EIR. This must include analysis on the effects of increased competition of water supplies due to development planning in the General Plan.

I10-3

I ask that these issues be taken into consideration and addresses appropriately.

Thank you,
 Aubrey E."Bud" Sloan

| | |
|-----------------------|--------------------------------------------|
| Letter I10 | Aubrey E Sloan February 25, 2020 |
|-----------------------|--------------------------------------------|

- I10-1 This comment is introductory in nature and expresses concern related to local agriculture history. The comment does not raise a specific significant environmental issue for which a response is required.
- I10-2 The comment indicates that data presented in the Background Report and used to describe the existing setting for the analysis of potential impacts to agricultural resources in the draft EIR should be refined and updated to reflect the most current data available. Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.

The data of concern to the commenter includes Figure 9-6, a pie chart depicting the sources of water used for agriculture in 2013; Table 9-7, which provides a summary of the market value of agricultural products between 2005 and 2015; and Figure 9-7, which shows agricultural areas and watersheds for the entire

county with sufficient clarity to illustrate the spatial relationship between the resources. While this information provides context for the analysis in the draft EIR, it does not directly influence the analysis of potential impacts on farmland and agricultural resources pursuant to the thresholds of significance established in Appendix G of the California Environmental Quality Act Guidelines and the County's Initial Study Assessment Guidelines. Furthermore, the comment provides no evidence that the most current data would substantially differ from that presented or change the analysis in the draft EIR. The data characterizing agricultural land use in the county provides a reasonable representation of conditions to inform an analysis of potential effects. No revisions to the draft EIR have been made in response to this comment.

I10-3

The comment asserts that the Background Report and draft EIR do not adequately discuss water demand, supply, and pumping costs, and indicates that an analysis of the effects of increased competition for water should be included in the draft EIR. The commenter is referred to Section 4.10, "Hydrology and Water Quality," for an evaluation of the potential effects of implementing the 2040 General Plan on groundwater and surface water quantity and quality, and Section 4.17, "Utilities," for a discussion of water supply.

Pumping costs are not specifically discussed because EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR.

Specific to the commenter's stated area of concern, increased pumping costs would only be relevant where there is substantial evidence that they would indirectly result in the loss of agricultural resources. As explained in the "Methodology" subsection of Section 4.1, "Agriculture and Forestry Resources," a reduction in available water resources for irrigation is considered an indirect impact on agricultural resources (see page 4.2-3 of the draft EIR). Indirect effects are evaluated under Impact 4.2-1 (Loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance) in Section 4.2, "Agriculture and Forestry Resources," of the draft EIR. Consistent with the County's Initial Study Assessment Guidelines, the subsequent discussion focusses on indirect loss of agricultural soils and land use conflicts. The analysis concludes that the impact to farmland would be significant and unavoidable because "any direct or indirect loss of Important Farmlands would be considered a permanent loss of a valuable resource," and there "are no actions or policies that the County could feasibly mandate to fully replace the loss of Important Farmland" (see page 4.2-17 of the draft EIR). Additional discussion of potential indirect effects related to pumping cost would be speculative and would not significantly change the analysis or conclusions of the draft EIR. No changes to the draft EIR have been made in response to this comment.

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Letter
I11

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I11-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I11-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I11-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually

I11-4

impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I11-4
cont.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I11-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I11-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I11-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I11-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I11-9

Sincerely,



915 Las Palmas Drive
Santa Barbara, CA 93110

| | |
|-----------------------|---------------------------------------------|
| Letter I11 | Audrey H Fester February 25, 2020 |
|-----------------------|---------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I11-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I11-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I11-3 Refer to response to comment I4-3 regarding water availability and cost.
- I11-4 Refer to response to comment I4-4 regarding economic feasibility of General Plan policies that could affect agricultural operations.
- I11-5 Refer to response to comment I4-5 regarding the commenter’s request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I11-6 Refer to response to comment I4-6 regarding wildfires, fire prevention, and the County’s Habitat Connectivity and Wildlife Corridor ordinances.
- I11-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I11-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I11-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Barb Miller <b.miller@verizon.net>
Sent: Monday, February 24, 2020 2:48 PM
To: General Plan Update
Subject: General Plan

| |
|-----------------------|
| Letter I12 |
|-----------------------|

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Board of Supervisors:

No doubt about it. Climate change is here. According to a recent study of data by the Washington Post, with an average temperature increase of 2.6 degrees Celsius since preindustrial times, Ventura ranks as the fastest-warming county in the Lower 48 states. However the good news is that General Plan Update gives us all the opportunity to begin workable and effective plans to mitigate it.

It is imperative that The Climate Action Plan (CAP) include the technical and scientific input needed for a meaningful CAP from teams qualified in solving the problem and able to produce a robust plan capable of meeting the greenhouse Gas (GHG) emission reduction goals.

Much of Climate change is caused by fossil fuel production and consumption. Ventura County needs to meet the goals of the Paris Climate Agreement, eliminating fossil fuel production and protecting its residents from harmful local pollution.

It's not going to be easy, but it's not easy to watch our county burn from climate change induced drought, or flood as a result of global warming. The crisis is upon us but so is the opportunity. I urge you to develop a general plan based on science and faces the crisis from climate change.

Thank you,

Barb Miller
 313 Manzanita St.
 Camarillo, C 93012

b.miller@verizon.net

I12-1

| | |
|-----------------------|-----------------------------------------|
| Letter I12 | Barb Miller February 25, 2020 |
|-----------------------|-----------------------------------------|

I12-1 The comment expresses a desire to address anticipated effects of climate change through the 2040 General Plan and is not related to the adequacy of the draft EIR. The comment states that the data and policies of the 2040 General Plan should be supported by science. Refer to response to comment I3-2 and Master Response MR-1 for discussion of the methods and science used to support development of the 2040 General Plan policies and programs related to greenhouse gas emissions.

The comment also asserts that to meet the goals of the Paris Climate Agreement, oil and gas production will need to be curtailed. See Master Response MR-4 for additional discussion of oil and gas production within the plan area and the 2040 General Plan's relationship to this industry.

From: Barbara Leighton <beleighton@yahoo.com>
Sent: Sunday, February 23, 2020 8:08 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comment re: Draft VC2040 General Plan

**Letter
I13**

To: Ventura County Board of Supervisors

From: Barbara Leighton

4102 Greenwood St.

Newbury Park, CA 91320

As a resident of Ventura County, I am very concerned about the future of our region and life on earth due to worsening climate change impacts.

Ventura County's General Plan is an opportunity to address these serious threats to human health and safety. If business as usual continues, impacts are bound to quicken the pace of becoming more and more severe. This is the time to make beneficial changes before conditions worsen – both locally and globally.

I agree with recommendations made by CFROG and the 350 Ventura County Climate Hub!

We need to muster our strength to shape a better future for generations to come. If we work together, I believe we can overcome the obstacles that block a thriving life-filled future.

Thank you for taking time to consider this matter carefully.

I13-1

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|-----------------------|----------------------------------------------|
| Letter I13 | Barbara Leighton February 23, 2020 |
|-----------------------|----------------------------------------------|

I13-1 The comment expresses a desire to address anticipated effects of climate change through the 2040 General Plan and is not related to the adequacy of the draft EIR. The description of the commenting individual and concern for the future of the region are noted. This comment does not raise a significant environmental issue for which a response is required. The commenter also refers to letters submitted by 350 Ventura County Climate Hub and Climate First: Replacing Oil & Gas. See responses to Letters O1 and O20, respectively.

From: Don and Beverly Denicola <de.nicola@cox.net>
Sent: Tuesday, February 25, 2020 2:52 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: County General Plan/EIR Comments

Letter
114

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 South Victoria Avenue, L#1740
 Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure –it’s not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.
 Laura McAvoy
 I support this letter-
 Beverly Chambers de Nicola

I14-1

I14-2

I14-3

I14-4

| | |
|-------------------|--------------------------------------------------------|
| Letter I14 | Beverly Chambers de Nicola February 25, 2020 |
|-------------------|--------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I14-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.

- I14-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.

- I14-3 Refer to Master Response MR-2 regarding the 2040 General Plan’s consistency with the Save Open Space & Agricultural Resources Initiative.

- I14-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Don and Beverly Denicola <de.nicola@cox.net>
Sent: Tuesday, February 25, 2020 2:54 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on General Plan/EIR

Letter
115

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today’s presentation by Ventura County Planning staff on the 2040 General Plan EIR.

I115-1

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time,” (emphasis added). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

I115-2

February 19, 2020

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 2 of 4

- 7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
- 8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
- 9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

I15-2
cont.

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

I15-3

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the potential for conflicts would be minimal. This impact would be less than significant" (emphasis added).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

I15-3
cont.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

I15-4

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little.... Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

I15-5

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

I15-6

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

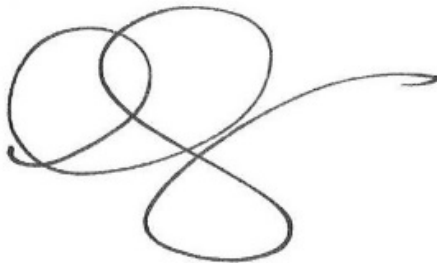
1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

I15-7

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director



In support of this letter-
Beverly Chambers de Nicola

| | |
|-----------------------|--------------------------------------------------------|
| Letter I15 | Beverly Chambers de Nicola February 25, 2020 |
|-----------------------|--------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter A13. The responses below provide cross references to the portions of Letter A13 where responses to the same comments have already been provided.

- I15-1 The comment describes that the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) has provided the following comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR “that CoLAB believes will negatively impact the viability of local agriculture.” This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I15-2 Refer to response to comment A13-7 and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I15-3 Refer to response to comment A13-8 regarding the Right-to-Farm Ordinance and land use conflicts.
- I15-4 Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.
- I15-5 Refer to response to comment A13-10 regarding General Plan Policies AG-5.2 and AG-5.3.
- I15-6 Refer to response to comment A13-11 regarding water resources and loss of topsoil.
- I15-7 Refer to response to comment A13-12 regarding mitigation measure suggestions.

From: Don and Beverly Denicola <de.nicola@cox.net>
Sent: Tuesday, February 25, 2020 2:50 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan / EIR Comments

**Letter
I16**

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

Beverly Chambers de Nicola

I16-1

| | |
|-----------------------|--------------------------------------------------------|
| Letter I16 | Beverly Chambers de Nicola February 25, 2020 |
|-----------------------|--------------------------------------------------------|

This comment letter repeats the same comments provided in Letter I6. The responses below provide cross references to the portions of Letter I6 where responses to the same comments have already been provided.

- I16-1 Refer to response to comment I6-1, which discusses setbacks from freeways and high traffic roads as a way to reduce adverse air quality effects for sensitive receptors, and the feasibility of Mitigation Measure AQ-3 (Policy HAZ-10.X).

From: Don and Beverly Denicola <de.nicola@cox.net>
Sent: Tuesday, February 25, 2020 2:57 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Jimmy & Jane Chambers <costacasas@gmail.com>
Subject: Comments on County General Plan/EIR

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| <p>Letter 117</p> |
|------------------------------|

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

I17-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

I17-2

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I17-3

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.
3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

I17-4

I17-5

I17-6

I17-7

I17-8

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

I17-9

Sincerely,
Beverly Chambers de Nicola

| | |
|-----------------------|--------------------------------------------------------|
| Letter I17 | Beverly Chambers de Nicola February 25, 2020 |
|-----------------------|--------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I17-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I17-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I17-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I17-4 Refer to response to comment I9-5 regarding analysis of social and economic issues in the draft EIR.
- I17-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I17-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I17-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I17-8 Refer to response to comment I9-9 regarding water supply.
- I17-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

FEB 27 10 27 AM '20

Beverly Gutierrez
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
I18

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I18-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I18-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I18-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I18-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I18-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I18-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I18-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I18-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I18-9

Sincerely,


Beverly Gutierrez

| | |
|-----------------------|-----------------------------------------------|
| Letter I18 | Beverly Gutierrez February 24, 2020 |
|-----------------------|-----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I18-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I18-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I18-3 Refer to response to comment I4-3 regarding water availability and cost.
- I18-4 Refer to response to comment I4-4 regarding economic feasibility of General Plan policies that could affect agricultural operations.
- I18-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I18-6 Refer to response to comment I4-6 regarding wildfires, fire prevention, and the County's Habitat Connectivity and Wildlife Corridor ordinances.
- I18-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I18-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I18-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

FEB 28 2020

Letter 119

23 February 2020

MAR 02 2020 11:15

RMA Planning Division
General Plan Update
800 Victoria Ave, L# 1740
Ventura, CA 93009-1740

Dear Ms. Susan Curtis;

I am writing to you for the purpose of commenting on the EIR for 2040 which was recently released in the fall of 2019. A County's General Plan is one of the most important documents that a County produces. This document is flawed in so many ways which is due to the reality, EIR's take 12-18 months to complete and this one was finished in 6 weeks!! I have selected just a few issues, however, I want to state this entire EIR has failed to achieve its primary purpose, in sooooo many ways.

I19-1

BACKGROUND REPORTS (BR)

BR's are the basis of data used for analysis of impacts. The EIR refers throughout to the the BR as the source of data and technical information used in the analysis of impacts.

The EIR states that the BR contains substantive information used to conduct impact analysis. However, the BR actually only contains general, incomplete and often incorrect or generalized information that cannot be applied to the impact analysis. The BR fails to provide adequate technical information to be utilized as the County claims.

The maps provided in the EIR and the Background Report are of such low resolution and detail that they do not provide the reader with the information necessary to evaluate or determine impacts or even to determine which parcels or areas may lack sufficient site exposure for solar installations to be effective or feasible. Much of the data in the BR is outdated.

I19-2

EXAMPLES:

1. Map 9-7 is of such poor quality and resolution that it is impossible to read the words. A map of such poor resolution and quality does not meet the CEQA standard of providing adequate information so the reader can evaluate the County's analysis of impacts.
2. All the tables in the Ag Chapter contain outdated information- the most recent data cited is from 2015.

Page Two

County fails to address the true impact on agriculture (lack of processing facilities and operations decreases economic sustainability of local ag.)

In the BR, the County admits that while "Current trend is for locally grown" products, there are very limited opportunities for this in Ventura County due to the lack of processing facilities.

Processing operations are restricted because of County policies and regulations. The EIR did not analyze the impact of lack of processing facilities on agriculture. The County did not propose any mitigation measures to reduce this impact.

I19-3

PROPOSE MITIGATION MEASURE:

Allow for the construction and operation of agricultural processing facilities. The mitigation measure will reduce the impact of conversion of ag lands to non-ag uses by improving long term economic-sustainability for agriculture.

COUNTY FAILS TO ANALYZE & REDUCE THE IMPACTS OF "ACTUAL" ISSUES.

Actual issues impacting agriculture in Ventura County that contribute to the conversion of ag land:

1. Water
2. Economics (extremely expensive are to do ag)
3. Lack of farmworker supply and housing
4. Increased regulatory burden from increasing compatibility issues from urban/ag interface

I19-4

County analyzed **NONE** of these issues and proposed no mitigation to address any of these issues.

Thank you Susan for your time.


 Bruce Holley
 Local Businessman
 Oxnard, CA

| | |
|------------------------------|--------------------------------------------------|
| <p>Letter I19</p> | <p>Bruce Holley February 23, 2020</p> |
|------------------------------|--------------------------------------------------|

- I19-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.
- I19-2 The comment states that the 2040 General Plan Update Background Report contains incomplete and incorrect generalized information such that the reader cannot evaluate impacts or determine which parcels or areas may lack sufficient site exposure for solar installations to be effective or feasible. Refer to Master Response MR-6 for a discussion of the accuracy and timeliness of the information provided in the Background Report. Note that the EIR provides a programmatic evaluation of the 2040 General Plan and is not intended to support parcel-level analysis. For example, Figure 9-7 shows agricultural areas and watersheds for the entire county with sufficient clarity to illustrate the spatial relationship between the resources. The data characterizing agricultural land use in the County provides a reasonable representation of conditions to inform an analysis of potential effects. The commenter’s reference to solar installations does not appear to be related to the adequacy of the draft EIR. Also refer to response to comment I10-2.
- I19-3 The comment suggests that the draft EIR should consider expanding the potential for the agricultural processing facilities through modification of the zoning ordinance as mitigation in the draft EIR. Refer to response to comment O32-24 regarding this suggestion.
- I19-4 The comment states that the draft EIR does not analyze impacts related to water, economics, farmworker housing, and compatibility issues from urban/agriculture interface. Refer to response to comment O32-15 for a discussion of where these issues are addressed in the EIR—with the exception of economic impacts, which are not required to be treated as significant effects on the environment (State CEQA Guidelines, § 15131). Mitigation measures are provided for significant impacts, as required by the California Environmental Quality Act. The comment does not provide specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR. Therefore, no further response is provided.

Comments on Draft 2040 County General Plan and DEIR

**Letter
120**

**Bruce Smith, AICP
3457 San Pablo St.
Ventura, CA 93003
February 24, 2020**

The following are my comments based on my cursory review of the Draft 2040 General Plan and DEIR:

DRAFT 2040 COUNTY GENERAL PLAN:

Land Use and Community Character Element:

LU-3.3 Range of Uses in the Existing Community Designation (pg. 2-12):

This policy states in part: ...*"The County shall allow the appropriate zoning, population densities, and building intensities based on the adopted Area Plan or, where no Area Plan exists, by the applicable Existing Community Map contained in Appendix A. Because of the degree of specificity on the Existing Community Maps, the County shall require a General Plan amendment for any zone change within an Existing Community."* (Emphasis added)

It appears that the zoning maps and population density and building intensity tables for Existing Communities of the current General plan have not been included in Appendix A of the Draft General Plan. As such, the requirement for a General Plan amendment for any zone change within an Existing Community would be without legal basis, since there would be nothing to amend in the Draft General Plan. Although it could be argued that a zone change that is inconsistent with Table 2-1 of the proposed General Plan would require a General Plan Amendment, such zone changes could be potentially inconsistent with the Guidelines for Orderly Development (retain land uses and development at pre-established levels) and could cause potential impacts that have not been discussed in the DEIR.

Having no building intensity standards for Existing Communities would be inconsistent with the requirements of existing California General Plan law since these areas would have no building intensity standards (i.e., maximum lot coverage). (See comments regarding Table 2-2).

I20-1

Table 2-1 General Plan Land Use Designations and Zoning Compatibility Matrix
(pg. 2-19):

As I stated in my May 2019 comments on the Preliminary Draft, the RA (Rural Agriculture) zone is not compatible with the Agricultural designation and should be eliminated therefrom. The RA zone predates the adoption of the Agricultural designation of the current General Plan, is listed under the heading of “Rural Residential Zones” in the Non-Coastal Zoning Ordinance, and allows many land uses that are incompatible with the purpose of the Agricultural designation. For example, the RA zone allows:

- Assembly Uses
- Intermediate and Residential Care of 7 or More Persons
- Cemeteries and Accessory Crematories, Columbaria and Mausoleums
- Cultural Heritage Sites with Historic Repository
- Colleges and universities
- Schools, elementary and secondary (boarding and nonboarding)
- Correctional Institutions
- Libraries
- Mobilehome Parks
- Camps
- Campgrounds
- Golf Courses and/or Driving Ranges
- Recreational Vehicle Parks
- Retreats
- Recyclables Collection Centers

I20-2

Failure to eliminate the RA Zone from the Agricultural designation will potentially cause significant adverse impacts regarding the loss of agricultural soils/crops, is growth inducing, and is inconsistent with the purpose and intent of the SOAR Ordinance. The Draft EIR does not currently discuss or analyzed these impacts.

If for some reason the County seeks to allow the RA zone under the ECU-Agricultural designation (not subject to SOAR), then the purpose and intent should be clearly stated and any potential impacts discussed in the EIR.

Table 2-2 Land Use Designations and General Development Standards (Pg. 2-21)

As I stated in my May 2019 comments on the Preliminary Draft, this table contains no maximum lot coverage standards for the urban Residential Designations and contains a footnote stating: “*Maximum lot coverage is per appropriate County Zoning classification.*” However, the Non-Coastal Zoning Ordinance states that the Maximum Percentage of Building Coverage standard for each zone is: “*As determined by the General Plan or Applicable Area Plan.*” With the exception of the Saticoy Area Plan, all

I20-3

Area Plans and Existing Communities not covered by an Area Plan currently contain maximum lot coverage standards. Moreover, this table fails to make reference to LU-10.3 Maximum Lot Coverage Nonconforming Lots (pg. 2-39). Therefore, this table needs to be corrected to make reference to maximum lot coverage standards contained in the Area Plans, Existing Community tables of the current countywide General Plan, and LU-10.3.

In addition, it appears that the zoning maps and population density and building intensity tables of each of the Existing Communities outside of an Area Plan of the current countywide General Plan have been eliminated in the proposed General Plan. This creates an inconsistency with State General Plan law since the Existing Community areas outside of an Area Plan would have no building intensity standards (see preceding comment regarding policy LU-3.3) and makes the Draft General Plan internally inconsistent. Therefore, these zoning maps and population density and building intensity tables should be added to either Appendix A, or an expanded Chapter 11 to address both Area Plans and Existing Communities.

ECU-Rural (ECU-R) (pg. 2-28), first paragraph is confusing and subject to misinterpretation, and should be modified to read:

I20-3
cont.

This designation applies within the boundaries of an Existing Community designated area and provides a physical transition between the outer edges of an Existing Community or Urban Area and nearby adjacent aAgricultural and eOpen eSpace designated areas and uses. ~~The ECU-Rural designation generally applies to the outer edges of Existing Community and Urban Areas and~~ around sensitive natural resources within the boundaries of an Existing Community designated area. Typical building types include large-lot single family homes in a rural setting.

PARKS & RECREATION LAND USE DESIGNATION (pg. 2-44) – *“This designation provides for parks and recreation facilities and associated recreation uses. The Parks and Recreation (PR) designation is only allowed in areas designated as Existing Community, Area Plans, or Areas of Interest under Policy LU-1.2.”* (Emphasis added)

This land use designation is apparently being created as a place saver for; 1) a future General Plan Amendment to actually designate specific properties with this designation and 2) a future Zoning Ordinance amendment to create a “REC” zone which would governing uses and development/operational standards.

Since the designation 1) only has a general description of allowed land uses (*parks and recreation facilities and associated recreation uses*), 2) the only development standard is *5% maximum lot coverage*, and 3) the designation is *allowed in areas designated Community, Area Plans, or Areas of Interest*, it is unclear how this designation is intended to be used. If the purpose is to change the land use designation of existing or planned parks and recreational facilities from Open Space, Agricultural, Rural, Existing Community and/or Urban designations to Parks and Recreation(PR), then that should be clearly stated. Moreover, the text of the Draft General Plan and Background Report should clearly state the current problem that the PR designation is intended to solve. In addition, it is unclear how the PR designation and the REC zoning would be consistent with the SOAR Ordinance on lands that are currently designated Open Space, Agricultural or Rural.

I20-3
cont.

If the unstated purpose of the PR designation is that it should only be applied to lands that are currently designated Existing Community or Urban, then the reference to Area Plans should be qualified by Unincorporated Urban Center of said Plans. In addition, since the reference to Areas of Interest would mean that most of the south half of the County would be eligible for re-designation from Agricultural, Open Space and Rural to PR, such re-designations would generally require a countywide vote under the provisions of the SOAR Ordinance. Unless this is clearly the Board's intent, the reference to Areas of Interest should be eliminated.

LU-12.1 Parks and Recreational Facilities (pg. 2-46).

"The County shall support the development of parks and recreation facilities within areas designated as Existing Community, Area Plans, or Areas of Interest."

My comments regarding PARKS & RECREATION LAND USE DESIGNATION above, also apply to this policy. In addition, this policy seems overly broad in that a proposed park and recreational facility may have significant adverse, un-mitigatable impacts such as the loss of agricultural soils or the loss of natural resources. This policy, as worded, may prevent the County from denying such a project. The DEIR does not discuss these potential impacts.

I20-4

Chapter 11 – Area Plans:

The last paragraph on page 11-1 states: *"Table 11-1 shows the compatibility between land use designations in the countywide General Plan and Area Plans. The solid squares indicate a directly compatible relationship between the two designations, and the empty square indicates limited compatibility because of a restriction from the development standards."*

I20-5

State law requires that a General Plan (including Area Plans) be internally consistent. Table 11-1 is replete with errors and needs to be comprehensively reviewed and corrected, especially in light of the zoning compatibility matrix of each Area Plan and Table 2-1 of the Draft countywide General Plan. As an example, the table incorrectly shows several Urban Residential designations of the Area Plans to be directly compatible with the Rural, ECU-Rural, Agricultural, ECU Agricultural, Open Space, and ECU-Open Space designations of the countywide General Plan. In addition, the table incorrectly shows Rural Residential Designations of the Area Plans to be directly compatible with the Agricultural, ECU-Agricultural, Open Space, and ECU-Open Space designations of the countywide General Plan. Additionally, the Open Space designations of the Area Plans are incorrectly shown as being directly compatible with the Agricultural and ECU-Agricultural designations of the countywide General Plan. Other inconsistencies exist within the table as well.

Neither the text of Chapter 11 nor Table 11-2 explains what is generally or precisely meant by “...empty square indicates limited compatibility because of a restriction from the development standards.” Without explanation, this phrase is meaningless.”

Unless Table 2-1 is corrected, the proposed General Plan will be internally inconsistent, exposing the County to a significant legal challenge in court.

I20-5
cont.

Appendices:

Appendix A - Area Plan and Existing Community Land Use Maps:

As I stated in my comments on Table 2-2, Appendix A should make reference to maximum lot coverage standards contained in the Area Plans, and include the maximum lot coverage standards of each of the Existing Communities in the current countywide General Plan.

General Comment regarding maps: Because of the scale of many of the maps, the Existing Community boundaries and land use designations within the Existing Community areas are unreadable and cannot be checked for accuracy. In addition, many of the land use designation labels on the maps are misplaced or unclear as to what parcels they apply to.

Figure A-2: General Plan Land Use Diagram - Lake Sherwood/Hidden Valley Area Plan: This map shows land use designations of some of the Existing Community areas that are within the Thousand Oaks Area Plan, which is confusing.

Figure A-8: General Plan Land Use Diagram - Thousand Oaks Area Plan: This map shows land use designations of some of the Existing Community areas that are within the Lake Sherwood/Hidden Valley Area Plan, which is confusing. In addition, the labels for land use designations within the Camarillo Area of Interest are unnecessary.

Figure A-21: General Plan Land Use Diagram - North Simi Valley: It is unclear what parcels the ECU-Open Space designation applies to since it is in an area that is outside of an Existing Community.

Figure A-23: General Plan Land Use Diagram - Santa Susana: The boundaries of the Existing Community along the north and northwest are confusing.

I20-5
cont.

DRAFT ENVIRONMENTAL IMPACT REPORT:

6.5.2 Alternative 2: Existing Community and Urban Area Designations Alternative (pg. 6-15):

Third paragraph states in part that *“Very Low Density or Low Density Residential lands outside of the Existing Community area designation (boundary) and Urban area designation (boundary) would remain the same as under the 2040 General Plan.”* (emphasis added). This is incorrect since the Very Low Density and Low Density Residential designations are only consistent with the Existing Community and Urban area designations, and are inconsistent with Rural, Agricultural and Open Space designations. Therefore, this sentence should be removed.

Pg. 6-16, Second paragraph, first sentence:

This sentence states: *“In addition, this alternative would employ policy incentives and disincentives to focus future population, housing, and employment growth within the Urban and Existing Community area designations.”* The feasibility and effectiveness of these incentives and disincentives is highly questionable, especially the transfer of development rights from Rural, Agricultural and Open Space designated lands.

Pg. 6-16, Fourth paragraph, first sentence:

“Overall population growth, housing, and employment projections for this alternative would be the same as under the 2040 General Plan.” This sentence is confusing in light of the next sentence of the paragraph that states that this alternative: *“... would result in substantially higher rates of population and job growth within these area designations relative to the 2040 General Plan.”* Therefore, the first sentence should be deleted.

I20-6

Comparison of Significant Environmental Effects (pg. 6-16)

First sentence states: *“This alternative would focus new development (e.g., more housing units, increase commercial square footage) anticipated to result from population growth that is forecast to occur over the life of the 2040 General Plan within a smaller disturbance footprint.”* (emphasis added). This statement is illogical since the Draft 2040 General Plan’s Very Low Density and Low Density Residential designated areas would be changed to more intense land use designations, which would result in greater disturbances to the existing physical and planned environment.

I20-7

Many of the other positive effects of this alternative seem to be based on the expectation of transfer of development rights from Rural, Agricultural and Open Space designated lands; however, there is no quantification of impacts and the benefits are based on an incentive that is highly speculative.

6.5.3 Alternative 3: Dense Cores Alternative

This alternative suffers from the same deficiencies as the preceding alternative: there is no quantification of impacts and the benefits are based on an incentive that is highly speculative.

I20-8

| | |
|-------------------|-----------------------------------------------|
| Letter I20 | Bruce Smith, AICP February 24, 2020 |
|-------------------|-----------------------------------------------|

I20-1

The comment asserts that any zone change under the 2040 General Plan could be inconsistent with the Guidelines for Orderly Development and could result in impacts not discussed in the draft EIR. Further, the comment asserts that lack of building intensity standards for Existing Communities would be inconsistent with the requirements of existing California General Plan law. The 2040 General Plan land use diagram establishes land use designations for the unincorporated county, including portions of the county within the Existing Community area designation. These land use designations do not change the land use zoning or building intensities on any properties compared to existing conditions; the designations were established based on the underlying zoning, thereby creating consistency. Any subsequent zoning amendment applications would also require update to the 2040 General Plan to maintain this consistency.

Future zoning amendments would be subject to review by the County. Potential for inconsistency with the Guidelines for Orderly development would be evaluated at the time the proponent applies for the zone change. The draft EIR has assumed that future development would be consistent with established regulations; the County has no basis upon which to speculate about future zoning amendments that could be inconsistent with the Guidelines for Orderly Development. Any such applications would undergo project-specific evaluation at the time the request is made.

Every location in the unincorporated county has a General Plan land use designation that includes an intensity maximum, as expressed by building footprint coverage. Population densities were intentionally omitted from the 2040 General Plan and are not required under State law. Refer to Master Response MR-2 for further discussion of the development potential (maximum density, intensity, and lot coverage) established by the land use designations in the 2040 General Plan.

I20-2

The comment states that the 2040 General Plan, Land Use and Community Character Element, Table 2-1, General Plan Land Use Designations and Zoning Compatibility Matrix (page 2-19), incorrectly identifies the Rural Agriculture zone as a compatible land use with the Agricultural land use designation. Planning Division staff have reviewed the existing General Plan Figure 3.2a, Zoning Compatibility Matrix, Non-Coastal Zones (page 73), and determined that identifying the Rural Agriculture zone as a new compatible land use with the Agricultural land use designation in Table 2-1 of the 2040 General Plan was recommended to the Board of Supervisors in error. The Planning Division will recommend that the Board of Supervisors correct this error in Table 2-1 during the adoption hearings for the final 2040 General Plan.

The comment also states that Table 2-1 indicates that the Rural Agriculture zone is a compatible land use with the proposed Existing Community-Agricultural (ECU-Agricultural) land use designation and asserts that the potential impacts of this compatibility should be analyzed in the draft EIR. By way of background, the draft EIR Section 4.11, "Land Use and Planning," indicates that the current Existing Community and Urban designations were retained as new area designations in the 2040 General Plan (page 4.11-9). Additionally, the Existing Community designation identifies existing urban residential, commercial, or industrial enclaves located outside Urban-designated areas. Furthermore, the County originally established the Existing Community designation to recognize existing unincorporated areas that have been developed with urban building intensities and urban land uses; to contain these enclaves within specific areas to prevent further expansion; and to limit the building intensity and land use to previously established levels to minimize incompatible land uses in these areas. The 2040 General Plan proposes to refine the Existing Community and Urban land use designations, as they currently exist in the current General Plan, by establishing new land use designations that provide more detailed information on the types of land uses (e.g., commercial, industrial, residential) that would be allowable within areas currently designated as Existing Community and Urban (Table 4.11-1). The draft EIR explains that these refined land use designations would result in future development that is consistent with the land uses, densities, and parcel sizes of Existing Communities based on current zoning (page 4.11-19).

The comment asserts that the potential impacts of deeming the Rural Agriculture zone compatible with the proposed Existing Community-Agricultural (ECU-Agricultural) General Plan designation should be analyzed in the draft EIR, and that such compatibility is "inconsistent with the purpose and intent of the [Save Open Space and Agricultural Resources (SOAR)] ordinance." The compatibility

of this zone classification and land use designation remains unchanged from the existing General Plan, Figure 3.2a, Zoning Compatibility Matrix, Non-Coastal Zones (page 73), which identifies the Rural Agriculture zone as a compatible with the Existing Community land use designation. Because the existing General Plan designation of all land that would be subject to the proposed ECU-Agricultural land use designation is Existing Community, none of the land is subject to the SOAR initiative measure which only applies to land designated Agricultural, Open Space, and Rural. Therefore, SOAR is not implicated and no additional analysis in the draft EIR is required to identify potential impacts of the compatibility of the Rural Agriculture zone and the Existing Community-Agricultural (ECU-Agricultural) land use designation. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopted a final 2040 General Plan.

- I20-3 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Also refer to Master Response MR-2 describing the Parks and Recreation designation of the 2040 General Plan.
- I20-4 The comment cites Policy LU-12.1 in the 2040 General Plan, through which the County would “support the development of parks and recreation facilities within areas designated as Existing Community, Area Plans, or Areas of Interest” and asserts that this policy could result in a loss of agricultural and natural resources because it “may prevent the County from denying such a project.” First, Existing Community, Area Plans, and Areas of Interest are the portions of the county that are envisioned to accommodate the majority of the anticipated population growth over the 20-year planning horizon. These are the areas where populations that would use park facilities are located. They are not generally areas that support high-quality agricultural land or natural resources. Second, there is no reason that the County cannot both implement Policy LU-12.1 encouraging development of parks to serve existing communities and implement policies in the 2040 General Plan that protect agricultural and natural resources. Therefore, the commenter’s concern that Policy LU-12.1 would result in environmental impacts that are not evaluated in the draft EIR is speculative given the regulatory environment and the policies in the 2040 General Plan.

By analyzing the entire 2040 General Plan on a programmatic level, the draft EIR addresses the direct and indirect impacts of Policy LU-12.1. The comment does not raise a new or substantially more severe significant impact that was not already included in the draft EIR. No changes to the draft EIR have been made in response to this comment. Also refer to Master Response MR-2 describing the Parks and Recreation designation of the 2040 General Plan.

- I20-5 The comment provides suggested edits to the 2040 General Plan. Refer to response to comment O33-9 for discussion of the internal consistency of the 2040 General Plan and Area Plans. However, this comment is acknowledged for

the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. No further response is required.

I20-6

The comment makes several statements regarding the description of Alternative 2 in Chapter 6, “Alternatives,” of the draft EIR. In response to this comment, the third paragraph under in Section 6.5.2, “Alternative 2: Existing Community and Urban Area Designations Alternative,” on page 6-15 of the draft EIR is revised to read:

However, the land use diagram of this alternative would be different from the 2040 General Plan in the following ways. ~~Very Low Density or Low Density Residential lands outside of the Existing Community area designation (boundary) and Urban area designation (boundary) would remain the same as under the 2040 General Plan.~~ Very Low Density or Low Density Residential lands located within the Existing Community area designation (boundary) and Urban area designation (boundary) would be designated as Medium-Density Residential or Residential High-Density.

As noted by the commenter, Alternative 2 would accommodate the same projected population, housing, and employment increases in the unincorporated county as the 2040 General Plan. As indicated on page 6-16 of the draft EIR, these changes in the land use diagram would necessitate “changes in the zoning designations and minimum parcel sizes (suffices in the Zoning Compatibility Matrix) as well as updates to the development standards to ensure increases in lot coverages, reduced setbacks and parking requirements, increased building heights to a maximum of 45 or 50 feet to accommodate a minimum of 3-story development (such as podium parking with two-stories residential above) in order to allow the county to accommodate the same amount of forecasted growth as the 2040 General Plan within more compact areas.” In the draft EIR the County describes potentially feasible policies and programs that incentivize this development pattern would support implementation of this alternative. The commenter’s concern about the effectiveness of these programs is noted and no further response to this issue is required.

No edits have been made to the language in the fourth paragraph on page 6-16 of the draft EIR, which is excerpted below. Both of the following statements are correct.

Overall population growth, housing, and employment projections for this alternative would be the same as under the 2040 General Plan. The lands within the Existing Community area designation (boundary) and Urban area designation (boundary) would become highly urbanized communities featuring high density and intensity development that create substantial additional opportunities to accommodate new housing units and commercial, office, and mixed-use land uses, which in turn would result in substantially higher rates of population and job growth within these area designations relative to the 2040 General Plan.

I20-7 The comment questions a statement within the description of Alternative 2 that forecast growth would occur within a smaller disturbance footprint than development the 2040 General Plan. However, this statement is accurate. As explained in the draft EIR (page 6-16), this alternative would employ policy incentives and disincentives to focus future population, housing, and employment growth within the Urban and Existing Community area designations. As described in the response to comment I20-6, the draft EIR describes the following potentially feasible policies and programs that could implement this alternative:

The types of policies and programs that would be created or revised to focus development within these areas would include changing development impact fees, parking standards, and permitting timelines. County investments in new or upgraded public infrastructure and other public expenditures would be prioritized within Urban and Existing Community area designations and limited elsewhere. This alternative could also include use of a transfer of development rights programs in which land owners outside of Urban and Existing Community area designations would be compensated for redirecting their development rights to land within these areas (page 6-16).

Alternative 2 includes more than just a transfer of development rights program. The comment also does not explain why transfer of development rights programs are “highly speculative.” This alternative is a potentially feasible development alternative that would avoid or substantially lessen one or more of the significant environmental effects identified in the draft EIR. The California Environmental Quality Act (CEQA) does not require that alternatives analysis include quantification of impacts. The evaluation of Alternative 2 meets the CEQA standard for level of detail and permits a comparison between alternatives. A determination of feasibility ultimately rests with the decision-making body of the lead agency.

I20-8 The draft EIR provides an appropriately supported and reasoned assessment of potentially feasible alternatives. CEQA does not require that alternatives analysis include quantification of impacts. As indicated in response to comment I20-7, above, for Alternative 2, the draft EIR describes the potentially feasible policies and programs that could implement Alternative 3, including the same types of policies and programs described for Alternative 2 plus specified revisions to the land use diagram to further accommodate growth within targeted areas of the county. Alternative 3 includes more than just a transfer of development rights program. The comment also does not explain why transfer of development rights programs are “highly speculative.” The analysis of alternatives is comparative and is not required to provide an equal level of detail in the draft EIR as the evaluation of the 2040 General Plan.

To: Susan Curtis, Manager, General Plan Update, Susan.Curtis@ventura.org

Letter
I21

Comments on COS-7.2 setback requirements for oil and gas wells, **DEIR for GPU 2040**

From: Carol Holly, 10508 Sulphur Mountain Road, Ojai, CA 93023

Proposed General Plan 2040 Policy:

- **COS-7.2: Oil Well Distance Criteria.** The County shall require new discretionary oil wells to be located a minimum of 1,500 feet from residential dwellings and 2,500 from any school. (RDR) [Source: New Policy]

The DEIR suggests a mitigation measure to the above policy to decrease the setback from schools (and to include day care centers) from 2500' to 1500'. The reasoning in the DEIR for this decrease in setback is to allow a potential operator in the future who perhaps wanted to drill an oil well without directional drilling to place the well on the drill pad anywhere they want. The DEIR stretches common sense with this argument. If the future operator can drill horizontally 1500' as stated in the DEIR, why not 2500'? There is a difference in the cost of drilling, but the risk to the health and safety of young children far outweighs the small economic cost to an operator or two.

I21-1

I was an elementary school principal in Ojai Unified School District for 22 years. In my role, among other things, I was responsible for ensuring the health and safety of children assigned to my school. Many young children suffer from asthma and skin allergies. All children love to run and play at recess. It is critical that those sensitive children are protected from unwanted and unnecessary exposure to air toxins that may cause serious complications leading to poor school attendance and miserable days of recovery time.

In my last assignment before retiring, I was principal at a school with three classrooms of special needs children, some of whom were medically fragile and who suffered from life-threatening childhood illnesses. This latter group of children were often highly sensitive to changes in their environment and the reactions they suffered were sometimes immediate and very serious. I remember asking one mother of such a child, "when would you like me to call 911?" Her response was, "any time you want to." As chilling as that sounds, it was real.

I21-2

Air toxins are dangerous to anyone in close proximity to the source of the emissions, but they are especially dangerous to young children. Children who are medically fragile may find them intolerable.

Bad Accidents Happen

In 2006, oil well #36 in the Ojai Oil Field began spewing a mixture of brine water and oil at the rate of 210 gallons per minute (5 barrels) after a 3.1 magnitude earthquake on the San Cayetano Fault (see attached DOGGR report). Summit School at that time had a population of approximately 80 K-6 grade students. The school is cited about 1000' from well #36 (see attached map). The well continued to spew a toxic mix of brine water and unknown other

chemicals used in the capping process onto the land for three months. The well casing break was very difficult to get under control. Finally, after accruing a cost of 4 million dollars, the flow was stopped. During the entire time the well was being worked on by teams of international well control experts no one at the school was notified of the disaster unfolding on the hillside upwind from the school. Children continued to play on the playground, teachers taught physical education, parents with babies dropped off and picked up their students. **No one knew.** Where was the Ventura County Environmental Health Department? Where was DOGGR? Where was the fire department whose station is just a few hundred feet east of Summit School? Were any tests done on air quality near the school?

After the well was capped and the drill rigs and heavy equipment all cleared out, a parent of children at the school was told of the disaster by a worker from the oilfield. The story spread and we were collectively horrified. There was never any follow-up study or even a quick check-in to see how the children of Summit School were doing. No one knows if the school attendance went down, or if there are students with lasting health issues caused by breathing toxic chemicals for three months. No one knows because no one asked.

If staff and the industry assert in response to this comment that there is no evidence that anyone was sick or hurt by the break in well #36, be aware. How can there be evidence when 1) no one knew of the emergency in real time, 2) no studies were ever done to look for possible effects of the spill to human health at the school and 3) the air quality at the school was never tested?

A setback distance of 2,500', roughly 1/3 of a mile, is about all we can do to protect the health of young children at a school near active or idled oil and gas activities.

I can assure you that no one with a medically fragile child would ever rent or buy a house 1500' from an active oil well if they could possibly avoid it, why would they have to send their child to a school 1500' from such a well?

Please reject the mitigation measure and retain the 2500' setback from schools and day care centers.

Thank you,

Carol Holly,

Retired Elementary School Principal, Ojai Unified School District,

MS Educational Administration

I21-2
cont.

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|-------------------|-----------------------------------------|
| Letter I21 | Carol Holly February 27, 2020 |
|-------------------|-----------------------------------------|

I21-1 Refer to Master Response MR-4, Section MR-4.H “Buffers (Setback)” and Section MR-4.I “Directional Drilling,” regarding the findings and conclusions related to buffers (setbacks) and directional drilling in oil and gas operations.

I21-2 The description of the commenting individual’s role and experiences as a principal in the Ojai Unified School District and the 2006 incident at oil well #36 in the Ojai Oil Field are noted. Based on these experiences and the effects of air quality impairment on sensitive receptors, the commenter expresses support for setback requirements between oil wells and schools. Refer to response to comment I21-1, above, regarding the effects of implementing General Plan Policy COS-7.2 (Oil Well Distance Criteria) related to health and safety.

The comment also references attachments to the main body of the letter that documents details about the 2006 release from well #36. The County has reviewed the attachments and determined that they do not contain comment on the content or conclusions of the draft EIR, nor do they raise any significant environmental issues for which a response is required. All comment letters submitted to the County on the draft EIR are provided with complete attachments in Attachment 1 to this final EIR.

Finally, the comment requests that the County “reject the mitigation measure and retain the 2500’ setback from schools.” As proposed in the 2040 General Plan, Policy COS-7.2 would require new discretionary oil wells to be located a minimum of 2,500 from any school. Based on the literature review and balancing the potential to hamper access to oil and gas reserves identified in Section 4.12, “Minerals and Petroleum Resources,” Mitigation Measure PR-1 would reduce the setback for schools to 1,500 feet. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer also to Master Response MR-4, Section MR-4.H, “Buffers (Setbacks),” for additional discussion of Policy COS-7.2, setback requirements, and Mitigation Measure PR-1.

FEB 27 12:04 PM '20

Carolyn Diacos
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
I22

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I22-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I22-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I22-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I22-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I22-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I22-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I22-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I22-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I22-9

Sincerely,



Carolyn Diacos

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| Letter I22 | Carolyn Diacos February 24, 2020 |
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This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I22-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I22-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I22-3 Refer to response to comment I4-3 regarding water availability and cost.
- I22-4 Refer to response to comment I4-4 regarding economic feasibility of General Plan policies that could affect agricultural operations.
- I22-5 Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I22-6 Refer to response to comment I4-6 regarding wildfires, fire prevention, and the County’s Habitat Connectivity and Wildlife Corridor ordinances.
- I22-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I22-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I22-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

February 25, 2020

Ventura County Resource Management Agency, Planning Division
ATTN Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L #1740
Ventura, California 93009-1740

Letter
I23

County of Ventura Draft Programmatic Environmental Impact Report for the Draft 2040
General Plan Update

Dear Ms. Curtis,

The County of Ventura (County) is in a unique position to be updating the County's primary planning document through 2040 as the impacts of climate change are becoming more severe. The Draft Environmental Impact Report (DEIR) fails to recognize the true impacts of climate change already occurring. The County is already experiencing a 2.6°C increase in average temperature from historical records. We are soon to re-enter drought conditions following the driest February on record. We are still recovering from two of the state's largest wildfires in modern history. We must act now, and we must act boldly.

I23-1

The DEIR fails to provide enough emissions reductions to meet, or meaningfully contribute to, the California state mandated climate goals. The DEIR fails to include a Climate Action Plan with measurable targets and goals to ensure County stakeholders are informed about progress, achievements and accurate analysis of shortcomings. Language used in the proposed 2040 General Plan update such as "encourage" or "support" rather than "require" or "mandate" is insufficient and meaningless to meet acknowledged greenhouse gas reduction targets.

The DEIR is based on a wholly inadequate inventory of county emissions. The inventory was conducted from top down rather than bottom up and fails to include, or even consider, a significant portion of present emissions. Studies published recently indicate significant under-assessment of greenhouse gases, especially methane, from current fossil fuel extraction and production sources that must be included in the DEIR analysis.

I23-2

Because the County is one of the leading producers of fossil fuels in the state, and therefore in the nation, including fossil fuel facilities NASA documents as greenhouse gas "super emitters," the County must act now, and act boldly. Approval of the proposed DEIR would be a failure of the County's moral and fiduciary responsibility.

I23-3

Therefore, to act responsibly, the County must:

- 1) Declare a climate emergency and direct all County government offices to incorporate climate change mitigation, to the extent feasible, in all activities,

- 2) Create a Climate Action Plan 2020-2040 with measurable targets and outcomes as a separate document from the General Plan update,
- 3) Set clear climate action goals and mandate enforceable climate policies based on the declaration of a climate emergency and Climate Action Plan 2020-2040, and
- 4) As part of the Climate Action Plan 2020-2040, set five-year interval targets beginning with 2025 to immediately begin the reduction of the County's contribution to the climate emergency.
 - a. Initial five-year (2025) emergency climate goals:
 - i. Begin the elimination of fossil fuel extraction and production within the County by immediately prohibiting operation of fossil fuel facilities within one-mile buffer zones of schools, public parks, mobile home parks, medical facilities, or any residential zones,
 - ii. Wind down discretionary oil and gas production by 10% per year to zero production in the County by 2030 starting with fossil fuel facilities within above one-mile buffer zones,
 - iii. Prohibit flaring and venting from any fossil fuel infrastructure before 2025,
 - iv. Implement a policy to coordinate with the California Department of Transportation (Caltrans) and the Ventura County Transportation Commission (VCTC) to cease all freeway, highway and road infrastructure expansion projects by 2025,
 - v. Implement a policy to coordinate with Caltrans and VCTC to use the existing 101 Freeway, Highway 126, and Highway 23/118 corridors to build light rail for inter-city and inter-county commuting by 2040,
 - vi. Implement a policy to expand existing rail infrastructure for multi-track capacity by 2040,
 - vii. Implement a policy requiring all public transportation (buses, shuttles, and all County vehicles) to be fully electric vehicles by 2030,
 - viii. Implement a County policy to prioritize walking and bicycling by connecting communities outside incorporated city limits with adequate walkways, bike lanes, and buffers from vehicle traffic,
 - ix. Implement a policy to coordinate with contracted refuse companies to divert all pre- and post-consumer food waste into the "green waste" stream for composting all County-derived food waste by 2025,

I23-3
cont.

I23-4

- x. Implement an agricultural policy requiring a transition to 100% regenerative farming including carbon sequestration and soil nutrient management plans by 2030,
- xi. Transition all small gas engines used in agriculture to electric models or diesel engines running on biodiesel produced from as locally-sourced waste vegetable oil as possible by 2030,
- xii. Implement a policy to transition all small, non-farm gas engines (i.e. blowers, mowers, trimmers, etc.) to electric models by 2025,
- xiii. Implement policies to facilitate distributed renewable energy generation and storage,
- xiv. Direct the County’s Resource Management Agency to study the potential to repurpose existing gas infrastructure as conduit for undergrounding electrical and communication lines by 2025,
- xv. Direct the County’s Chief Financial Officer to study the potential of public banking to finance County divestment from fossil fuels and investment in sustainable energy systems by 2025, and
- xvi. Implement a policy to include existing fossil fuel industry workers in the County’s responsible transition to clean, renewable energy infrastructure.

I23-4
cont.

Whatever price tag you want to envision for these proposals, it pales in comparison to the pending costs of sea level rise, soil degradation and crop failure, increased asthma and other heat-exacerbated medical conditions, and the shortsighted failures of free market economics and laissez faire County governance to deal with climate change. To delay action, to delay investment, will only cause greater harm and increased costs for us all.

I23-5

Respectfully,

Chad Christensen
Ventura, CA

| | |
|-------------------|----------------------------------------------|
| Letter I23 | Chad Christensen February 25, 2020 |
|-------------------|----------------------------------------------|

I23-1 The comment states that the draft EIR does not recognize the true impacts of climate change already occurring or provide enough emissions reductions to meet the State’s mandated climate goals. Chapter 12 of the Background Report is incorporated into Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR, which summarizes anticipated effects of climate change on Ventura County and provides a recent inventory of the county’s greenhouse gas (GHG) emissions. Where feasible, the draft EIR estimates the anticipated emissions reductions from certain measures (displayed in Table 4.8-1) using Intergovernmental Panel on Climate Change’s Global Warming Potential values from the most recent Fifth Assessment Report. The 2040 General Plan does include measurable targets for GHG reductions for 2030, 2040, and 2050 that are aligned with the State’s legislative GHG reduction targets and other reduction goals (page 4.8-6, draft EIR).

The comment also states that language used in the 2040 General Plan policies is insufficient to result in meaningful reductions. In preparing the GHG analysis provided in the draft EIR, the County considered, and included references to, the proposed 2040 General Plan policies and implementation programs most applicable to the analysis. As explained in the methodology subsection in Section 4.8, "Greenhouse Gas Emissions," (page 4.8-7), the analyses evaluate whether the GHG reduction benefits of these policies and programs are supported by substantial evidence. Substantial evidence leading to estimates of GHG emissions resulting from implementation of the 2040 General Plan include both qualitative and quantitative assessments, consistent with Section 15064.4(a) of the State CEQA Guidelines. The draft EIR includes a detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county (pages 4.8-37 to 4.8-45).

Table 4.8-5, as revised in the final EIR, summarizes the policies and programs that would have quantifiable GHG reductions by 2030 (page 4.8-39). Implementation of the quantified policies and programs in Table 4.8-5 would collectively provide reductions of 168,065 metric tons of carbon dioxide equivalent (MTCO_{2e}) by 2030, an approximate 11 percent reduction from forecast 2030 levels and 30 percent of the reductions needed to meet a target of 1,138,708 MTCO_{2e} for consistency with emissions targets identified in Policy COS-10.2 (41 percent below 2015 levels by 2030). An additional 242,748 MTCO_{2e} of reductions would be needed to close the gap with the 2030 target (page 4.8-40). For additional discussion refer to Master Response MR-1; Attachment 2 to the final EIR, which provides revisions the GHG calculations of draft EIR Appendix D; and final EIR Chapter 3, "Revisions to the draft EIR."

Other policies and programs of the 2040 General Plan would also result in GHG reductions but specific amounts cannot be determined at this time as described on pages 4.8-39. Qualitative analysis of the GHG reduction benefits of 43 programs included in the 2040 General Plan to reduce GHG emissions is provided in Table 4.8-6 (pages 4.8-40 to 4.8-43).

The draft EIR also includes seven feasible mitigation measures that address the potentially significant GHG emissions impacts of the 2040 General Plan (draft EIR pages 4.8-45 to 4.8-47). Thus, the draft EIR correctly identifies and considers 2040 General Plan policies and programs in the GHG emissions analysis conducted in the draft EIR and correctly includes feasible and enforceable mitigation measures in the draft EIR analysis of GHG emissions.

The draft EIR concludes, in its post-mitigation significance conclusion for Impact 4.8-1 (Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment), that the 2040 General Plan policies and recommended mitigation measures would not be sufficient to reduce GHG emissions to the established 2030 and 2040 reduction target because the policies, while supportive of future GHG reductions, do not contain enough specificity for their numeric contribution to the established 2030 and 2040 targets to be quantified. The draft EIR explains that:

No additional feasible mitigation has been identified at this time beyond the mitigation measures identified above and the policies and implementation programs of the 2040 General Plan. Under the 2040 General Plan future GHG emissions in the county would be on a downward trajectory compatible with State plans, policies, and regulations that would also result in GHG reductions in the county (page 4.8-52).

In Impact 4.8-2 (Conflict with an Applicable Plan, Policy, or Regulation for the Purpose of Reducing the Emissions of GHGs) beginning on page 4.8-49), the draft EIR explains that the 2040 General Plan includes several implementation programs with a quantifiable effect on future GHG emissions, and a substantial number of additional programs and policies in every GHG emission sector that would result in further GHG emissions, although their effect on GHG emissions cannot be quantified at this program level of analysis. The 2040 General Plan policies and programs complement the main area of local government influence over GHG emissions, including renewable energy and energy efficiency, land use decisions, and local transportation infrastructure and policy. The available information that can be quantified demonstrates that future emissions in the county would be on a downward trajectory through 2050. Qualitative evidence shows that the many policies and programs that cannot be quantified at this time would lead to further GHG reductions and additional progress toward State GHG reduction targets. However, for these reasons and those described in Impact 4.8-1, the County cannot meaningfully quantify the effect of all its 2040 General Plan policies and programs on future GHG emissions, and therefore, cannot conclude, at this program level of analysis, that future GHG emissions in the unincorporated county under the 2040 General Plan would be sufficiently reduced to meet the State's 2030 or post-2030 targets.

Also refer to Master Response MR-1 for additional discussion of how the 2040 General Plan, its policies and programs, and draft EIR mitigation measures address GHG emissions.

I23-2

The comment states that the GHG inventory conducted for the County does not include a significant portion of present emissions from current fossil fuel extraction and production and states that unspecified recent studies indicate significant under-assessment of methane emissions. The commenter does not provide the study; therefore, the County cannot adequately address the science or findings of this reference. The GHG inventory prepared to characterize baseline emissions in the county is summarized in Table 4.8-1 of the draft EIR. This inventory provides estimates for stationary source emissions, which cover oil and gas extraction activity within the county. The commenter is correct that fugitive methane emissions have been reportedly undercounted by certain studies; this inventory was conducted using the most current science and reporting available. Refer to Master Response MR-1 for additional discussion of fugitive methane emissions and how stationary sources were included in the GHG inventory.

I23-3

The comment requests that the County declare a climate emergency, prepare a Climate Action Plan for 2020-2040 that is separate from the 2040 General Plan, and set clear climate action goals and mandate enforceable policies. Refer to Master Response MR-1 for discussion of the draft EIR's detailed quantitative and

qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county (draft EIR pages 4.8-37 to 4.8-45), and seven feasible mitigation measures that would address the significant GHG emissions impacts of the 2040 General Plan and further reduce GHG emissions in the county (draft EIR pages 4.8-45 to 4.8-47).

The 2040 General Plan sets GHG reduction targets at 10-year intervals that were developed in consideration of statewide GHG reduction targets and other reduction goals. Because the 2040 General Plan encompasses policies and targets that would similarly be contained in a standalone Climate Action Plan, the 2040 General Plan can be used in the same way to reduce countywide emissions.

Regarding the concept that “declaration of climate emergency” should be the basis for the County’s climate goals and policies, note that local emergency declarations are made by the governing body or a designated official and are part of a relatively short-term response effort (see, e.g., Gov. Code, §§ 8550 et seq. [California Emergency Services Act]). Because an emergency declaration is a quasi-legislative act authorizing the short-term exercise of extraordinary governmental powers, it would occur separately from the 2040 General Plan policies, which would guide County actions through 2040.

The comment is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I23-4

The comment directs the County to set 5-year interval reduction goals and lists strategies to reduce emissions. Implementation Program AA in the Conservation and Open Space Element of the 2040 General Plan would require updates to the GHG emissions inventory to track GHG reduction performance at 5-year intervals. In addition, many of the policy suggestions in the comment have been considered in development of the 2040 General Plan.

These suggestions are noted and are generally congruent with the types of policies and programs included in the 2040 General Plan and analyzed in the draft EIR. The 2040 General Plan includes policies and programs to facilitate alternative transportation modes including public transit (Policies HAZ-10.6 and HAZ-10.8); policies that would reduce food waste (Policy PFS-5.4); policies that encourage sustainable farming (AG-5.1 through AG-5.3), including Policy AG-5.2 that would support the transition from fossil-fuel-powered equipment to electric- or renewable-powered equipment and Program AG-L to sequester carbon through changes in farming practices; as well as policies to increase use of renewable energy (Policies COS-8.1 through COS-8.11). Refer to Master Response MR-4, Section MR-4.J, “Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations),” regarding the suggestion that the County prohibit petroleum extraction. Because this comment is not related to the adequacy of the draft EIR, no further response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I23-5 The statement comparing the costs of the strategies suggested in comment I23-4 to the costs of several anticipated climate change impacts is noted. This comment is a concluding statement and does not raise a significant environmental issue for which a response is required.

From: chris raymond <raymond.chrisj@gmail.com>
Sent: Wednesday, February 26, 2020 3:16 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: chris@rinconstrategies.com; llampara@colabvc.org
Subject: 2040 General Plan Draft EIR Comment

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| <p>Letter I24</p> |
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The County did not conduct complete analysis on impacts of creating a new source of glare for motorists.

The General Plan contains policies that require installation of solar panels and the creation of "reflective" roof tops.

Policy PFS-2.2: Sustainable Community Facility Design. The County shall encourage the incorporation of sustainable design features in community facilities to reduce energy demand and environmental impacts, such as reflective roofing, permeable pavement, and incorporation of shade trees.

Implementation Program U: Solar Canopies in Non-Residential Projects. The County shall amend the County's Coastal and Non-Coastal Zoning Ordinances to require parking lots for new non-residential construction projects, with floor area of greater than 50,000 square feet, to include solar canopies.

Yet these policies were not analyzed for impact even though they will both create new sources of glare.

Even with Mitigation Measure AES-1 (requiring that materials that reduce glare be used), how do you have a "reflective" roof and use "reduced glare" materials? By the very definition of "reflective", glare will be produced.

Also, has the County evaluated whether "non-glare" solar panels are technologically or economically feasible?

I24-1

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| <p>Letter I24</p> | <p>Chris Raymond February 26, 2020</p> |
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I24-1 The comment asserts that the draft EIR does not include a complete analysis related to glare impacts by stating that Policy PFS-2.2 and Implementation Program U would result in new sources of glare that were not evaluated. Policy PFS-2.2 encourages incorporation of design features that promote sustainability in new development, and Implementation Program U in the Conservation and Open Space Element would require solar canopies on certain non-residential developments.

Impact 4.1-3 (Create a New Source of Disability Glare or Discomfort Glare for Motorists Traveling along Any Road of the County Regional Road Network) analyzes the glare impacts of the 2040 General Plan on motorists. The analysis describes the policies of the 2040 General Plan and provisions of the Non-Coastal Zoning Ordinance and Coastal Zoning Ordinance that would reduce potential glare impacts, and concludes that while these policies and provisions

would generally reduce glare impacts, there would be still be limited circumstances in which future development would include reflective materials such as metal or glass and be visible from one or more Regional Road Network (RRN) roadways such that discomfort or disability glare for motorists traveling along an RRN roadway could occur (page 4.1-27).

The draft EIR identifies Mitigation Measure AES-1 for this potentially significant impact. This measure would establish an implementation program through which applicants for future discretionary development projects that include use of reflective surfaces which the County determines would potentially be visible to motorists traveling along the County RRN would be required to submit a detailed site plan and list of project materials to the County for review and approval. If the County determines that the project would include materials that would produce disability or discomfort glare for motorists, the County will either require the use of alternative materials or require that the applicant submit a study demonstrating that the project would not introduce a source of substantial glare. Through this process, it is expected that sustainable design features encouraged in Policy PFS-2.2 that conflict with the requirements of Mitigation Measure AES-1 would be eliminated or revised through design of the project because the requirement of Mitigation Measure AES-1 to evaluate and address glare generated along the County RRN would supersede the County's encouragement of building elements where they are found to generate such impacts at the project-level. Design could be modified by, for example, relocating a parking lot required to orient solar canopies to avoid glare impacts to a regional roadway. The technological and economic feasibility of sustainable design features encouraged in the 2040 General Plan would be determined at the project level for individual development applications.

From: VC2040.org Comments <alan.brown@ventura.org >
Sent: Monday, February 24, 2020 7:38 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
I25**

You have a NEW Comment

Name:

Christina Pasetta

Contact Information:

Christina.Pasetta@patagonia.com

Comment On:

No flares that will be wasteful and pollute our air.

Your Comment:

Flares are wasteful and polluting. End this practice and do the real work of deconstructing this infrastructure. I I25-1

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| Letter I25 | Christina Pasetta February 24, 2020 |
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I25-1 Refer to Master Response MR-4, Section MR-4.F Flaring, regarding the findings and conclusions related to flaring in oil and gas operations.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Thursday, February 20, 2020 7:41 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

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| Letter I26 |
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You have a NEW Comment

Name:

Christina Pasetta

Contact Information:

Christina.pasetta@patagonia.com

Comment On:

Oil and Gas buffer zone minimums

Your Comment:

2500 feet is still too close to people and shared spaces for these polluting and destroying entities but that is the minimum we can demand as a buffer zone for these oil and gas extractive and explorative practices. I I26-1

No more oil. I I26-2

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| Letter I26 | Christina Pasetta February 20, 2020 |
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- I26-1 Refer to Master Response MR-4, Section MR-4.H Buffers (Setback) regarding the findings and conclusions related to buffers (setbacks) in oil and gas operations.

- I26-2 Refer to Master Response MR-4, Section MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations) regarding the findings and conclusions related to phasing out the oil and gas industry.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 12:32 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

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| Letter I27 |
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Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:

Christine Brennan

Contact Information:

christinebrennan65@me.com

Comment On:

climate Action Plan

Your Comment:

I am a 30 year resident of Ojai. I am currently a board member of Ojai Trees a nonprofit tree planting organization. I am alarmed at the current climate change rate and fully endorse CFROG additions to the plan. Climate change is caused by fossil fuel production and consumption. The CAP addresses the consumption side by merely encouraging, but not requiring, electric fuel vehicles and clean power for homes and businesses. But Ventura County is the third largest oil and gas producing county in California. As such, we must do our part to reduce oil production through thoughtful, rigorous policy to phase it out. This is not addressed.

I27-1

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| Letter I27 | Christine Brennan February 26, 2020 |
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I27-1 The description of the commenting individual’s participation in Ojai Trees and concerns regarding climate change in Ventura County are noted. This comment does not raise a significant environmental issue for which a response is required. The commenter refers to a letter submitted by Climate First: Replacing Oil & Gas. See responses to Letter O20. Also, refer to Master Response MR-1 regarding greenhouse gas reduction planning concerns.

From: Christopher Tull <info@email.actionnetwork.org>
Sent: Wednesday, February 19, 2020 9:46 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Please make strong climate policy!

Letter
I28

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather. I want strong climate policy and a goal to be carbon neutral by 2045.

I28-1

My family and community are counting on you to make a strong plan that helps us mitigate climate impacts. With tipping points accelerating, we cannot go halfway! We want courageous leadership to set goals we can hang our hopes and efforts on.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I28-2

I want policies like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and effective benchmarks for reducing emissions from tailpipes.

I28-3

I want an EIR that covers major climate impacts and a systematic plan that will assure carbon neutrality no later than 2045.

Thank you—

Christopher Tull
ctull17@gmail.com
446 Deodar Ave.
Oxnard, California 93030

My family and community are counting on you to make a strong plan that helps us mitigate climate impacts. With tipping points accelerating, we cannot go halfway! We want courageous leadership to set goals we can hang our hopes and efforts on.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I want policies like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and effective benchmarks for reducing emissions from tailpipes.

I want an EIR that covers major climate impacts and a systematic plan that will assure carbon neutrality no later than 2045.

Thank you—

Christopher Tull
ctull17@gmail.com
446 Deodar Ave.
Oxnard, California 93030

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| Letter I28 | Christopher Tull February 19, 2020 |
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This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I28-1 Refer to response to comment I3-1 regarding the commenter’s concerns about climate change and the draft EIR analysis.
- I28-2 Refer to response to comment I3-2 regarding the use of current climate change science in the draft EIR analysis.
- I28-3 The comment calls for certain GHG reducing policies. Refer to response to comment I3-3 for a discussion of these suggestions.

Letter
I29

Ventura County Board of Supervisors ,

206 people have signed a petition on Action Network telling you to Petition to VC Supervisors and Planners about VC2040 Draft General Plan and EIR.

I29-1

Here is the petition they signed:

With worsening climate change impacts, we reiterate and amplify the concerns the people expressed in January of last year about “climate change and GHGs, and the effects of continued oil and gas extraction including secondary effects related to climate change, air quality, water quality, water supply, traffic, noise, odors, aesthetics, and hazards.”

Our county is warming faster than any other in the nation, our ocean is becoming more hostile to marine life, our last drought was the most intense and lasted longest, and our history of costly floods will be dwarfed when future atmospheric rivers pour over our valleys. Our house is on fire. We need a thorough plan and environmental impacts analysis based on the latest science.

Ventura County’s plan matters. Our larger cities are making climate action plans and look for your example of leadership. The environmental impact from what we do to mitigate climate impacts at the global scale is profoundly influential in trying to stop runaway climate change. This is explained in a new report Insights from the California Energy Policy Simulator about the role of the State of California in the world. Ventura County as a local government hit hardest by climate impacts must step up and meet serious goals. “Insights about California’s climate policies are at the forefront of global efforts to battle climate change. The state’s leadership and success so far have helped maintain momentum despite political headwinds. If California faltered, global efforts to reduce GHG emissions would be dealt a major setback. Meanwhile, the severe risks from runaway global warming are becoming more tangible as the state suffers from wildfires supercharged by climate change.”

I29-2

A. Four Overall Comments:

We are grateful for the expertise at the law firm of Shute, Mihaly and Wineberger retained by CFROG regarding CEQA. We have appreciated their past comments. We join them in continuing to request the following:

1. Count ALL GHGs that result from activity in our county: Count all burning of oil and gas originating in our county and count all fugitive methane from wells in our county and from methane entering our county that was not counted at the jurisdiction of origin. Do the math on the GHG footprint for heavy exports. We want to mitigate our fair share of all climate impacts from activities within Ventura County. We have to know what they are. Worrying about double counting is not acceptable. Just worry that you haven’t counted every cause of climate impacts that we are morally and legally responsible to mitigate with a comprehensive inventory and a systematic plan.

I29-3

2. Use the latest science to calculate GWP of methane: The global warming potential of GWP is nearly 40 percent greater than what you are using. The International Panel on Climate Change states that over a 20 year period, methane has a GWP of 84 compared to carbon dioxide (up from their previous estimate of 72). The US EPA estimates it at 87 and recent scientific experts put the estimate at 96. We must know the true environmental impact of methane emissions. A complete and scientifically valid GHG inventory is required for a CEQA-compliant Climate Action Plan.

I29-4

3. Use the emissions reduction goal from Governor Brown’s Executive Order B-18-55 “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing greenhouse gas emissions.” It is an inadequate compromise, but not as much as the SB 32 goal of 80% below 1990 levels by 2050. City of LA plans to stay within a net zero carbon budget between now and 2045. The proposed GHG reductions in the VC2040 Draft of 41 percent below 2015 levels by 2030, 61 percent by 2040, and 80 percent by 2050 are not ambitious enough for us to do our part to mitigate the climate chaos happening faster than scientists have predicted.

I29-5

4. Policies and programs must meet the goal: It does not take an in-depth analysis to see that this plan will not achieve the 2030 goal of 40% reduction in GHGs below 1990 levels. A new report Insights from the California Energy Policy Simulator shows that the State of California will fall short of that goal by at least 15 and as much as 45 MMT CO₂e. We have and continue to advocate for a goal aligned with Governor Brown’s Executive Order to achieve carbon neutrality as soon as possible and no later than 2045.

I29-6

B. Some Comments about Impacts and Mitigation

The environmental impacts that concern us are those resulting from governments not making and carrying out plans to mitigate climate change. Your draft analysis does not include most of them. Table B in the Executive Summary is not even half finished. Some of the more serious impacts are missing from the draft analysis. Here are a few of our concerns:

I29-7

1. Aesthetics, Scenic Resources and Light Pollution and Agriculture and Forest Resources: Mitigation programs are needed to protect our resources from degradation from significant climate impacts. The loss of soil in particular is associated with the downfall of civilizations.

2. Air Quality: The emissions impacts from exceeding criteria pollutant thresholds and also greenhouse gases seem significant and can be mitigated.

I29-8

3. Biological Resources: The new implementation program is a good start to “update the Initial Study Assessment Guidelines, Biological Resources Assessment report criteria and evaluate discretionary development that could potentially impact sensitive biological resources”. Two kinds of impacts are missing. 1) Climate Change. A major mitigation is the restoration of wetlands which should be at a 2:1 or greater ratio. Stormwater management is another mitigation that reverses the loss of vegetation from drought and floods and supports the restoration of all of the indigenous biology that makes an ecosystem function to maintain the small water cycles. 2) Toxic Pesticide and Herbicide Use and Drift. This must be part of the agenda of a Program for Protection of Sensitive Biological Resources to promulgate the mitigations provided by Integrated Pest Management. Pest management policy must align with the recommendations of the California Department of Pesticide Regulation Roadmap for Integrated Pest Management some of which have climate mitigation co-benefits.

I29-9

4. Energy: We want a workshop to learn how it is deemed less than significant to allow wasteful, inefficient, or unnecessary consumption of energy resources.

I29-10

5. Greenhouse Gas Emissions: The climate change impacts are so dire that the mitigations need to be benchmarked to be achieved before it is too late to reverse runaway climate chaos. At minimum we demand a systematic plan for decarbonization of county facilities and electrification of the transportation system.

I29-11

6. Hazards, Hazardous Materials, and Wildfire: The impacts of toxic explosions, leaks, and spills and the drift of regulated materials and the ignorance of the public about toxic impacts must be addressed where feasible through mitigations that regulate the use and transport of hazardous materials. We have recommended feasible mitigations for people being exposed to the risk of wildfires that have not been accepted by decision-makers.

I29-12

7. Hydrology and Water Quality: Impacts from climate change and poor land management have led to grave threats to water supply and water quality. These are highly significant—ground water overdraft, overuse and degradation of water quality, erosion, flooding, and siltation. (Impact 4.10-12) The failure to restore small water cycles to keep stormwater in the uplands and maintain forest health is one of the most serious impacts being mitigated in many places through a paradigm shift about stormwater management. Mitigation is essential—water is life. It requires an integrated water management plan that involves every sector working on every mitigation of which we are aware.

I29-13

8. Land Use and Planning We want an analysis of incompatible land uses and new development with negative health implications. Closing wells near sensitive sites is a mitigation. Environmental Justice is not examined in the draft EIR.

I29-14

9. Mineral and Petroleum Resources: We want an analysis of the impact of the scenario in which wells have been put on hold and the operator cannot close the wells for lack of funds. We have no choice. The wells must be closed properly. Fields must be restored to functioning ecosystems to help mitigate climate change impacts. We need insurance as well as bigger bonds.

I29-15

10. Traffic and Transportation: Tailpipe emissions is an extremely significant environmental impact. The mitigation aimed for in the CTM-C: Vehicle Miles Traveled (VMT) Reduction Program needs assurances of effectiveness via a clear description of what “conditions warrant providing additional mitigations and programs”? This is far too vague to be a mitigation for this significant impact. We have no alternative but to reliably cut GHGs in the transportation sector.

I29-16

I29-17

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| <p>11. Utilities: Failure to develop wholesale and commercial scale renewable energy generation and microgrids is a significant environmental impact because it has forced us to have to get our electricity from fossil fuels via transmission lines that spark wildfires. Community microgrids are a feasible mitigation.</p> | <p>I 29-18</p> |
| <p>12. Waste Management: Failure to properly manage waste has a highly significant environmental impact, especially when it produces methane super-emitter landfills that is driving climate change, but also the failure to reuse and recycle consumer goods and the materials and equipment discarded by commercial enterprises. We need a more comprehensive approach for mitigation of these impacts.</p> | <p>I 29-18</p> |
| <p>C. The following policy recommendations for the Draft Plan could help the Plan achieve the GHG reduction goals to mitigate climate change impacts and help the EIR be more relevant to the climate crisis.</p> | <p>I 29-19</p> |
| <p>Land Use and Community Character: We endorse the comments submitted by Bruce Smith to more firmly assure preservation of agricultural land and open space. We point out the lack of analysis of Environmental Justice policy issues.</p> | <p>I 29-20</p> |
| <p>Circulation, Transportation, and Mobility:</p> | |
| <p>1. No overriding considerations should allow a project to NOT reduce VMT unless all of the vehicles have zero emissions that will use the proposed project.</p> | <p>I 29-21</p> |
| <p>2. CTM 3-9 to widen SR 118 has a significant environmental impact.</p> | <p>I 29-22</p> |
| <p>3. Benchmarks to reduce VMT need to be more clear and the plan needs a review with public input every two years until 2028 and then no longer than every five years.</p> | <p>I 29-23</p> |
| <p>4. Parking programs should be included in ways that reduce single-occupancy car trips.</p> | <p>I 29-24</p> |
| <p>Public Facilities, Services, and Infrastructure:</p> | |
| <p>1. Enroll residents in a program to reduce CO2 emissions in their neighborhoods. Ex: Cool Block or Transition Streets.</p> | |
| <p>2. PFS 2.1 must be revised to say include rather than encourage 'Sustainable Plans and Operations' in order to be considered a mitigation of climate change impacts from greenhouse gas emissions.</p> | <p>I 29-25</p> |
| <p>3. Policy PFS 7.1 should be revised to delete the need for access to gas. The environmental impact from use of natural gas requires carbonizing buildings beginning with no gas connections to new residences . It is therefore contradictory to ensure access to gas.</p> | |
| <p>4. Local renewable energy generation must be part of the mitigation plan for reducing transmission facility fire hazard risk. This is not the same as "Smart Grid Technology". You need experts who know the cutting edge of this field to help write coherent policy on this topic.</p> | <p>I 29-26</p> |
| <p>5. Zero Waste The County shall achieve zero waste (via a suite of policies to reduce, reuse, and recycle) with no organic waste going to landfills by 2023</p> | |
| <p>6. Zero Waste Policy for Meetings and Events Design and implement a zero waste policy for meetings and events sponsored or permitted by the County to minimize waste and rescue surplus edible food</p> | |
| <p>7. Compostable Take-Out Foodware Require that take-out foodware be made with material compostable in solid waste processing facilities within 60 days</p> | <p>I 29-27</p> |
| <p>8. Reduce Solid Waste by Phasing Out Single-Use Plastic Evaluate how to best reduce solid waste generation per capita by at least 15% by 2030 including phasing out single-use plastics including but not limited to plastic straws, plastic utensils, plastic take-out containers, and expanded polystyrene</p> | |
| <p>9. Ban Expanded Polystyrene</p> | |

Conservation and Open Space:

1. Reduce oil and gas production by 40% by 2025 via higher monitoring standards and 2500 ft buffer zones near sensitive sites; reduce production to zero by no later than 2040.
2. Phase-Out of Oil and Gas Production The County shall prohibit new drilling and shall regulate existing wells to assure steady closing of wells beginning near residential and commercial areas.
3. Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.
4. Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.
5. Detect and curb methane emissions from "super-emitter" sites as identified by NASA.
6. Tax oil and gas production, and related uncaptured methane to raise the needed revenues to fund urgent climate programs to replace high-emission vehicles with a priority on trucking and freight companies, fishing businesses, general contractors and K-12 schools.
7. Require a fully accountable performance bond for all new wells to cover cost of closure Cite LAT article (maybe put on website and link to it).
8. Establish an insurance fund that oil and gas producers contribute to that will cover accidents and closing wells if the producer goes bankrupt.
9. Ban gas-fueled lawn and garden equipment. (Ex: City of Ojai)
10. Accelerate capture of legacy HFCs Enlist the public and private to find and destroy existing stocks of HFC's (refrigerant gases with extremely high Global Warming Potential).
11. Develop and adopt building codes based on best practices for use of low embodied carbon concrete and set targets for use of low GHG concrete alternatives. Ex: Bay Area Air Quality Management District and King Co, WA.
12. Encourage climate-safe and climate-resilient development through zoning reform and removal of limits on height, density, and minimum parking requirements to enable and promote walkability and a mix of uses for homes and businesses, parks and transit.
13. Create a master local clean energy siting and funding plan for wholesale distributed solar energy plus storage in commercial scale projects producing energy needs by 2030.
14. Provide energy efficiency benchmarking and rebates for low-income housing and renters as well as low-interest loans for small businesses to reduce energy use; assist owners of existing buildings to switch from natural gas to electricity.
15. Prepare sustainable building, siting, landscaping and passive heating and cooling practice guidelines, with a priority on low-income housing, that reduce consumption of non-renewable resources and that include climate and fire-safety in pre-approved plans.
16. Energy Efficiency to Reduce Electricity Use Use Energy Efficiency to Deliver 15% of Projected Needs for electricity in the county by 2023; and 30% by 2030.
17. Efficiency Building Standards for Retrofits Prioritize energy and water efficiency building standards and work to retrofit existing buildings.
18. Decarbonize County Buildings Develop a county building electrification plan eliminating natural gas use in County-owned facilities.
19. Decarbonize All Building Types Develop an electrification plan with goals for GHG emission reductions through renewable energy that evaluates and prioritizes programs for local solar, energy storage and demand response (DR) that disconnects all buildings from gas service by 2050. Include incentives for deep retrofits of inefficient buildings.

I29-28

I29-29

Agriculture:

1. Integrated Pest Management where toxic pesticides are a last resort. Create a program that promotes the principles (systems approach, building trust, and effective communication) and pursues the recommendations of the Roadmap for Integrated Pest Management from the University of California and CA Department of Pesticide Regulation. Environmental impacts from toxic pesticides are not described in the Background Report. The Roadmap to an Organic California Policy Report by CCOF Foundation offers information for mitigations and climate action. A workshop is needed.
2. Inorganic Nitrogen Based Fertilizers Set benchmarks for reducing use of inorganic N fertilizer and encourage optimized use of organic and inorganic fertilizer for greatest efficiency in closed nutrient cycles, monitor for nutrient runoff from fields and encourage the use of cover crops and green manure crops to reduce or avoid nitrous oxide (N₂O) emissions and nutrient runoff.
3. Diversified Cropping Systems Encourage farmers to include 1 – 5% of beneficial insect attracting plants in a planted crop, and other methods, such as crop rotation, perennial mowed cover crop in orchards, and integrating multiple species or varieties to enhance the biological and economic stability by spreading economic risk and buffering against pest invasions and extreme weather events, and increase carbon sequestration.
4. Reward Regenerative Farmers with Digestate and Compost from Food Waste Research feasibility of a program for composting food waste for use by farmers and landscapers who use regenerative practices that sequester certified amounts of CO₂.

I29-30

Water Resources:

1. At least 30,000 acre-feet per year must come from storm water capture by 2035
2. All rainfall must be retained onsite in soil and reservoirs.
3. Slow It. Spread It. Sink It! The County shall enforce Best Management Practices (BMP) and Low Impact Development (LID) for new developments.
4. Recycle all wastewater for beneficial reuse by 2035.
5. Reduce potable water use per capita by 22% by 2025 and 25% by 2035: Offer incentives for water conservation features, including drought tolerant landscaping, permeable materials in standard parkway design guidelines, street trees, infiltration, greywater, and water-saving plumbing.
6. Close oil and gas wells and injection wells near aquifers as a top priority.
7. Create a Master Plan to develop the full potential of integrated water management to infiltrate the ground and recharge aquifers; support reforestation and restoration of watershed ecosystems; conserve and protect groundwater resources, and clean up creeks, streams, and estuaries.
8. Support Santa Clara River Loop Trail and Ventura River Trail Development

I29-31

Economic Vitality:

1. Agricultural Diversification should include reference to regenerative practices to create biodiversity with opportunities for community members to visit farms.
2. Small Business Promotion. Support approval of caretaker residential space on business property to reduce VMT and more financial strength for small businesses.
3. Green Economy. Prioritize youth and immigrants for workforce development in industries that promote and enhance environmental sustainability, including GHG reductions, climate adaptation, resiliency and local renewable energy generation, storage and distribution, including solar power, wind power, wave energy, regenerative organic farming and value-added agriculture-related activities, and other appropriate renewable sources.
4. Maritime Economy. Facilitate a sustainable maritime economy using restorative aquaculture techniques that restore ocean health and biodiversity while reviving pre-human fisheries abundance. For example, restore sand-bottom kelp forests and increase kelp forests with flexible floating fishing reefs where the seafloor is otherwise too deep for kelp.

I29-32

5. Promote Fire-Resistant Infill and Revitalization. Encourage infill development that serves as firebreak rather than as additional fuel for wildfires.

6. Create a Collaborative Structure for Innovation for a Resilient Future. The structure should be able to make decisions and create a way forward for zoning, building and materials and environmental health to allow options for a resilient future, include government officials, innovators and public as described in submissions from Sustainable Living Research Initiative.

7. Parking Infrastructure. Develop parking policies to reduce single occupancy trips associated with employees and business activity to reduce Vehicle Miles Traveled.

8. Master Plan for Distributed Energy Resources and Community Microgrids. Prepare a map of siting options for renewable energy generation and storage facilities and coordinate the identification of financing options for renewable energy resource development, including solar, wind, wave, storage and community microgrids both in front of and behind the meter.

In summary, with the accelerating tipping points, we cannot go half-way in our vision. We need extraordinary courage to set goals we can hang our hopes and efforts on. We want completeness and clarity so we can see how the emissions reduction plan adds up. We want respect for climate science to tell us the truth. We want more ambition. A 2016 decision of the state legislature in SB32 is just not good enough as a goal. We want to see a systematic plan that will assure carbon neutrality no later than 2045.

You can view each petition signer and the comments they left you in the attached PDF.

Thank you,

Christopher Tull

I29-32
cont.

I29-33



Sent via Action Network, a free online toolset anyone can use to organize. [Click here to sign up](#) and get started building an email list and creating online actions today.

| | |
|-----------------------|----------------------------------------------|
| Letter I29 | Christopher Tull February 27, 2020 |
|-----------------------|----------------------------------------------|

- I29-1 Refer to the response to comment O1-1. The comment introduces a petition to the Ventura County Board of Supervisors regarding the 2040 General Plan and draft EIR. This petition was also submitted by 350 Ventura County Climate Hub. See responses to Letter O1 for a discussion of the concerns raised in this petition. The 206 signatories are acknowledged for the record. Comment letters submitted to the County on the draft EIR are provided with complete attachments in Attachment 1 to this final EIR.
- I29-2 The comment reiterates general concerns from the petition about the effects of ongoing oil and gas extraction. These concerns are acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- The comment also summarizes the foreseeable environmental changes associated with anthropogenic climate change and emphasizes the need to conduct environmental impact analysis using the latest science. See response to comment I28-2 for a discussion of the methodology used to evaluate greenhouse gas (GHG) emissions for baseline conditions and future target years in the draft EIR. The comment summarizes more detailed comments provided elsewhere in the comment letter. See responses to comments I29-3 and I29-4, below.
- I29-3 Refer to response to comment O1-2 for a discussion of GHG emissions and the global warming potential of methane.
- I29-4 Refer to response to comment O1-3.
- I29-5 Refer to response to comment O1-4. The comment summarizes more detailed comments provided elsewhere in the comment letter. See responses to comments I29-6 through I29-18, below, regarding impacts and mitigation measures.
- I29-6 Refer to response to comment O1-5.
- I29-7 Refer to response to comment O1-6 for a discussion of programs to protect scenic resources and agriculture and forest resources from degradation due to significant climate impacts.
- I29-8 Refer to response to comment O1-7 regarding criteria air pollutant emissions.
- I29-9 The comment asserts the new implementation program does not include impacts as a result of climate change and should include mitigation regarding the restoration of wetlands and stormwater management. Refer to response to comment O1-8, which explains that EIRs are not required to include an analysis of impacts that are a result of climate change.

- I29-10 Refer to response to comment O1-9 for an explanation of why the draft EIR correctly omits analysis of the impacts of pesticide and herbicide use on biological resources.
- I29-11 Refer to response to comment O1-10 for a discussion of the energy consumption analysis in the draft EIR.
- I29-12 Refer to response to comment O1-11 regarding GHG mitigation.
- I29-13 Refer to response to comment O1-12 for a discussion of the evaluation of potential hazards included in the draft EIR.
- I29-14 Refer to response to comment O1-13 regarding hydrology and water quality.
- I29-15 Refer to response to comment O1-14 regarding analysis of incompatible land uses and new development resulting in negative health implications.
- I29-16 The comment requests an analysis of a scenario in which wells have been put on hold and the operator cannot close the wells due to lack of funds. Additionally, the comment asserts wells must be properly closed to restore functioning ecosystems to mitigate climate change impacts and insurance is needed along with bigger bonds. Refer to response to comment O1-15 and Master Response MR-4, Section MR-4.J, “Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations),” regarding the findings and conclusions of the draft EIR related to phasing out the oil and gas industry.
- I29-17 Refer to response to comment O1-16 for a discussion GHG mitigation measures.
- I29-18 The comment asserts that the failure to develop wholesale and commercial scale renewable energy generation and microgrids is a significant environmental impact, for which community microgrids is a feasible mitigation. Refer to response to comment O1-17.
- I29-19 The comment states that the failure to properly manage waste has a significant environmental impact, especially when it produces methane which is driving climate change. Refer to response to comment O1-18.
- I29-20 The comment summarizes more detailed comments provided elsewhere in the comment letter. See responses to comments O1-20 through O1-32 regarding policy recommendations for the General Plan to achieve GHG reduction goals to mitigate climate change.
- I29-21 Refer to response to comment O1-20 regarding comments submitted by Bruce Smith. Also, see responses to Letter I20 from Bruce Smith..
- I29-22 Refer to response to comment O1-21 regarding overriding considerations and evaluation of vehicle miles traveled.
- I29-23 Refer to response to comment O1-22 regarding the assertion that 2040 General Plan Policy CTM 3-9 has a significant environmental impact.

- I29-24 The comment is related to vehicle miles of travel benchmarks and public review. Refer to response to comment O1-23.
- I29-25 The comment suggests additional topics that could be considered in the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to response to comment O1-24.
- I29-26 The comment provides suggested edits to policies proposed and suggests additional topics that could be considered in the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to response to comment O1-25.
- I29-27 The comment asserts that local renewable energy generation must be part of the mitigation plan for reducing transmission facility fire hazard risk. Refer to response to comment O1-26.
- I29-28 The comment suggests additional topics that could be considered in the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to response to comment O1-27.
- I29-29 Refer to Master Response MR-4, Section MR-4.H “Buffers (Setback),” Section MR-4.J “Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations),” Section MR-4.F “Flaring,” and Section MR-4.G “Pipeline Requirements” regarding the findings and conclusions related to buffers (setbacks), phasing out the oil and gas industry, flaring, and pipelines in oil and gas operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopted a final 2040 General Plan.
- I29-30 The comment suggests additional policies to be included in the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to response to comment O1-29.
- I29-31 The comment suggests additional topics that could be considered in the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to response to comment O1-30.
- I29-32 The comment provides suggested actions that could benefit water resources, but fails to provide evidence linking benefits from these actions to impacts from implementation of the 2040 General Plan identified in the draft EIR. Refer to response to comment O1-31.
- I29-33 The comment suggests additional topics that could be considered in the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to response to comment O1-32.
- I29-34 Refer to response to comment O1-33.

From: Chris Tull <ctull17@gmail.com>
Sent: Thursday, February 27, 2020 6:32 PM
To: General Plan Update
Subject: Please support a dedicated county bike network

**Letter
I30**

Follow Up Flag: Follow up
Flag Status: Flagged

Please support the Santa Clara River Loop trail and the Santa Paula Branch Line bike/ped trails to help form a bike/ped backbone throughout our county.

I30-1

Thank you,

--
Christopher Tull
Oxnard, CA 93030

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| Letter I30 | Christopher Tull February 27, 2020 |
|-----------------------|----------------------------------------------|

I30-1 The comment requesting support for a dedicated bike network in the county is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: 805countrysquire@gmail.com <805countrysquire@gmail.com>
Sent: Tuesday, February 25, 2020 2:35 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

| |
|-----------------------|
| Letter I31 |
|-----------------------|

VC Planning,

You may have remembered a news story in the VC Star about my wife and I defending our Tierra Rejada home from the Easy Fire in 2019. My wife and I did this, alone, without assistance of the VC Fire Dept due to the fact that they were busy protecting the Reagan Library. We know firsthand the potential destruction of wildfires. But more importantly, we understand the role of vegetation buffers and wildfire fuel control. Part of the reason my wife and I were able to stand our ground and successfully defend our home from the flames was due to the fact that we had regularly cut and disposed of vegetation FARTHER than the 100-foot barrier required by the County or that will be permitted to be done with the aid of mechanized equipment. We have been told that we were "lucky". No, we were prepared, but our ability to continue that preparation will be severely hampered with these new regulations.

I31-1

In Part 4.9 of the EIR, the County talks about how increased fuel loads will increase risk of wildfires. But then the County fails to talk about Policies COS-3.2, COS-1.15, Implementation Program COS-H, and Implementation Program COS-C which will increase fuel load and vegetation.

Please revise the DEIR so that it accurately identifies and mitigates wildfire risks. Help me save my home from the next wildfire.

Best Regards

Chuck

Chuck Carmichael
 Country Squire
 The End of the Road
 15664 LaPeyre Road
 Moorpark, CA 93021

Cell (818) 399-9067
 Fax (818) 698-6435

Email: 805CountrySquire@gmail.com

| | |
|-----------------------|----------------------------------------------|
| Letter I31 | Chuck Carmichael February 25, 2020 |
|-----------------------|----------------------------------------------|

I31-1 The comment expresses concern about 2040 General Plan policies and programs that the commenter asserts could increase fuel loads and their potential to effect wildfire hazards. See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs and the potential to increase wildland fire hazard.

From: Clint Fultz <info@email.actionnetwork.org>
Sent: Sunday, February 23, 2020 8:18 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: We're in a Climate Emergency!

**Letter
I32**

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I am deeply about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

I32-1

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I32-2

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management and supporting HR763 The Energy Innovation and Carbon Dividend Act.

I32-3

We want an EIR that covers major climate impacts via a systematic plan.

Thank you—
Clint Fultz

Clint Fultz
dibelieve@protonmail.com
787 St Charles Dr Apt 8
Thousand Oaks , California 91360

| | |
|-----------------------|-----------------------------------------|
| Letter I32 | Clint Fultz February 23, 2020 |
|-----------------------|-----------------------------------------|

This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I32-1 Refer to response to comment I3-1 regarding the commenter’s concerns about climate change and the draft EIR analysis.
- I32-2 Refer to response to comment I3-2 regarding the use of the most current climate change science in the draft EIR analysis.
- I32-3 Refer to response to comment I3-3 regarding suggested mitigation measures.

From: roncyndied@aol.com
Sent: Thursday, February 27, 2020 4:30 PM
To: General Plan Update; Curtis, Susan
Subject: Ventura County General Plan

Letter
I33

Follow Up Flag: Follow up
Flag Status: Flagged

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

I33-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

I33-2

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I33-3

I would also like to raise some additional concerns:

- 1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community. I 133-4
- 2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government’s housing policies. I 133-5
- 3. The EIR does not adequately address the enormous “indirect impacts” that will occur as a result of implementing the General Plan, calling them “less than significant.” I 133-6
- 4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable. I 133-7
- 5. The Plan does not adequately evaluate the impacts of increased competition for water in our community. I 133-8

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input. I 133-9

Sincerely,
 Cynthia Thomas Dickson
 32075 Camino del Cielo
 Trabuco Canyon, CA 92679

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|-------------------|----------------------------------------------------|
| Letter I33 | Cynthia Thomas Dickson February 27, 2020 |
|-------------------|----------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I33-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I33-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I33-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I33-4 Refer to response to comment I9-5 regarding analysis of social and economic issues in the draft EIR.
- I33-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I33-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I33-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I33-8 Refer to response to comment I9-9 regarding water supply.
- I33-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: Daniel Chambers <danchambers55@gmail.com>
Sent: Thursday, February 27, 2020 12:35 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Fwd: Number 3--Fwd: County General Plan/EIR Comments

Letter
I34

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 South Victoria Avenue, L#1740
 Ventura, CA 93009-1740
 Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

I34-1

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

I34-2

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I34-3

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I34-4

I appreciate your consideration.

Laura McAvoy

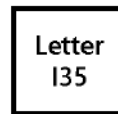
I, Daniel James Chambers, fully support the content of this letter.

| | |
|-------------------|-----------------------------------------------|
| Letter I34 | Daniel J Chambers February 27, 2020 |
|-------------------|-----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I34-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.
- I34-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.
- I34-3 Refer to Master Response MR-2 regarding the 2040 General Plan’s consistency with the Save Open Space and Agricultural Resources initiative.
- I34-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Dario Grossberger <dariogro@gmail.com>
Sent: Thursday, February 27, 2020 5:00 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; chris@rinconstrategies.com; llampara@colabvc.org
Subject: 2040 General Plan Draft EIR Comment



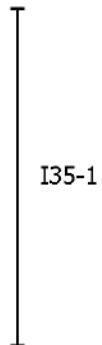
Regarding the 2040 General Plan,

The County failed to analyze the impact of allowing alternative fuel production in an Industrial area.

The County must analyze any impact that creates hazards on public health and safety through the transport, use or disposal of HazMat and HazWaste.

The County failed to evaluate Policy CTM-6.4 (alternative fueling stations) and has failed to even mention Policy LU-11.X (alternative fuel production) or Implementation Program LU-Program X (County shall allow the production of alternative fuel). These policies were not analyzed for impacts - and yet the County claims, without having conducted a complete and thorough analysis, that the impact will be less than significant (pg. 4.9-12 and 4.9-14).

This analysis was grossly inadequate and needs to be corrected and the EIR needs to be recirculated.



Sincerely yours,
 Dario Grossberger

| | |
|-------------------|-----------------------------------------------|
| Letter I35 | Dario Grossberger February 27, 2020 |
|-------------------|-----------------------------------------------|

- I35-1 Refer to response to comment O32-29 regarding the analysis of policies that encourage production of alternative fuels and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Dave Chambers <davechambers911@gmail.com>
Sent: Tuesday, February 25, 2020 4:53 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: County General Plan Response

Letter
136

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

I36-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

I36-2

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I36-3

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.

I36-4

2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.

I36-5

3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."

I36-6

4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.

I36-7

5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

I36-8

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

I36-9

Sincerely,
Dave Chambers

| | |
|-----------------------|-------------------------------------------|
| Letter I36 | Dave Chambers February 25, 2020 |
|-----------------------|-------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I36-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I36-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I36-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I36-4 Refer to response to comment I9-5 regarding analysis of social and economic issues in the draft EIR.
- I36-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I36-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I36-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I36-8 Refer to response to comment I9-9 regarding water supply.
- I36-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: Dave Chambers <davechambers911@gmail.com>
Sent: Tuesday, February 25, 2020 5:19 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Response to General Plan/EIR Comments

Letter
137

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 South Victoria Avenue, L#1740
 Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

I37-1

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure—it’s not even mentioned as a possibility in the DEIR.

I37-2

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I37-3

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I37-4

I appreciate your consideration.

Laura McAvoiy

I support this letter-
 Dave Holroyd Chambers

| | |
|-----------------------|---------------------------------------------------|
| Letter I37 | Dave Holroyd Chambers February 25, 2020 |
|-----------------------|---------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I37-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.
- I37-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.
- I37-3 Refer to response to comment I8-4 and Master Response MR-2 regarding the 2040 General Plan’s consistency with the Save Open Space and Agricultural Resources initiative.
- I37-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Dave Chambers <davechambers911@gmail.com>
Sent: Tuesday, February 25, 2020 5:20 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan/EIR Comments

| |
|---------------|
| Letter I38 |
|---------------|

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

Dave Holroyd Chambers

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| I38-1 |
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|-----------------------|---------------------------------------------------|
| Letter I38 | Dave Holroyd Chambers February 25, 2020 |
|-----------------------|---------------------------------------------------|

This comment letter repeats the same comments provided in Letter I6. The responses below provide cross references to the portions of Letter I6 where responses to the same comments have already been provided.

- I38-1 Refer to response to comment I6-1, which discusses setbacks from freeways and high traffic roads as a way to reduce adverse air quality effects for sensitive receptors, and the feasibility of Mitigation Measure AQ-3 (Policy HAZ-10.X).

From: Dave Chambers <davechambers911@gmail.com>
Sent: Thursday, February 27, 2020 7:42 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan/EIR Comments

Letter
139

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today’s presentation by Ventura County Planning staff on the 2040 General Plan EIR.

I39-1

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time,

” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

I39-2

February 19, 2020

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

I39-2
cont.

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the potential for conflicts would be minimal. This impact would be less than significant" (emphasis added).

I39-3

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 3 of 4

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

I39-4

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

I39-5

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

I39-6

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

I39-7

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director

In support of this letter-

In support of this letter-

Dave Holroyd Chambers

| | |
|-----------------------|---------------------------------------------------|
| Letter I39 | Dave Holroyd Chambers February 27, 2020 |
|-----------------------|---------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter A13. The responses below provide cross references to the portions of Letter A13 where responses to the same comments have already been provided.

- I39-1 The comment describes that the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) has provided the following comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR “that CoLAB believes will negatively impact the viability of local agriculture.” This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I39-2 Refer to response to comment A13-7 and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I39-3 Refer to response to comment A13-8 regarding the Right-to-Farm Ordinance and land use conflicts.
- I39-4 Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.
- I39-5 Refer to response to comment A13-10 regarding 2040 General Plan Policies AG-5.2 and AG-5.3.
- I39-6 Refer to response to comment A13-11 regarding water resources and loss of topsoil.
- I39-7 Refer to response to comment A13-12 regarding mitigation measure suggestions.

From: Dave Chambers <davechambers911@gmail.com>
Sent: Tuesday, February 25, 2020 5:17 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments re General Plan/EIR

Letter
I40

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

I40-1

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as "capable of being accomplished in a successful manner within a reasonable period of time,

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5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a "plan" for management of farmland in conservation easements;

I40-2

February 19, 2020

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
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I40-2
cont.

Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

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I40-3

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 3 of 4

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I40-4

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR. But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

I40-5

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

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The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

I40-6

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 4 of 4

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CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

I40-7

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,
Louise Lampara Executive Director

In support of this letter- Dave Holroyd Chambers

In support of this letter- Beverly Chambers de Nicola

| | |
|-----------------------|----------------------------------------------------------------------------------|
| Letter I40 | Dave Holroyd Chambers and Beverly Chambers de Nicola February 25, 2020 |
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This comment letter repeats many of the same comments provided in Letter A13. The responses below provide cross references to the portions of Letter A13 where responses to the same comments have already been provided.

- I40-1 The comment describes that the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) has provided the following comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR “that CoLAB believes will negatively impact the viability of local agriculture.” This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

- I40-2 Refer to response to comment A13-7 and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.

- I40-3 Refer to response to comment A13-8 regarding the Right-to-Farm Ordinance and land use conflicts.

- I40-4 Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.

- I40-5 Refer to response to comment A13-10 regarding 2040 General Plan Policies AG-5.2 and AG-5.3.

- I40-6 Refer to response to comment A13-11 regarding water resources and loss of topsoil.

- I40-7 Refer to response to comment A13-12 regarding mitigation measure suggestions.

February 27, 2020

Susan Curtis, Manager
General Plan Update Section
Ventura County Planning Division
800 S. Victoria Ave
Ventura, CA 93009

VIA Email: GeneralPlanUpdate@ventura.org

Letter
I41

Dear Ms. Curtis,

The Ventura County General Plan Update Draft Environmental Impact Report (DEIR) fails to adequately address the impacts associated with the policies proposed by the draft General Plan. Specifically, this letter comments on DEIR Section 4.2 – Agriculture and Forestry Resources.

Section 15168 (b)(2) of the California Resources Code identifies one of the advantages of a Program EIR as ensuring “consideration of cumulative impacts that might be slighted in a case-by-case analysis.” The DEIR further clarifies: “The impact analysis provided in this section addresses the physical changes to the existing environment that could occur as a result of 2040 General Plan implementation.”

The methodology of the analysis (Section 4.2.2) addresses only future development and land-use conflicts. Implementation of the General Plan is much more complex. This approach treats agricultural resources as just another land use designation while ignoring the viability of what CEQA determined to be a critical and valuable part of our environment.

There are numerous deficiencies but for brevity I will review the first two scoring factors in the California LESA model: water availability and project size. Both are critical to the viability of sustainable agricultural production but the impacts of the proposed General Plan policies and DEIR mitigations are not properly analyzed or evaluated. The proposed policies and mitigations could result in the conversion of Farmland to non-agricultural uses or create physical changes that are not analyzed or meaningfully mitigated under the DEIR.

Water Availability. The DEIR passingly references the importance of water to agricultural sustainability but fails to quantify existing conditions or anticipated changes in availability for agricultural uses. The Background Report and Section 4-10 identify groundwater basins in overdraft including the Oxnard Plain Basin that provides more than half of all agricultural irrigation water in the county. The proposed GSP for the Oxnard Basin will require significant reductions in agricultural groundwater extraction over the next 20 years - possibly up to 50%. The head of the Fox Canyon GMA is advocating for the full reductions immediately.

It is not possible to irrigate the same amount of land with half the water. The reductions in available water for irrigation and increased costs will necessarily lead to the fallowing of thousands of acres of agricultural land during the General Plan’s 20-year time horizon.

I41-1

I41-2

Unplanted areas will be subject to increased erosion from wind and water forces. The proposed General Plan policies will play a significant role in the conversion of current Farmland to non-agricultural uses.

I41-2
cont.

The proposed mitigations of permanently restricting agricultural lands on a 2:1 basis is well established to be infeasible (see LAFCo analysis). Without water, the designated land could not be used for agricultural production. There is no analysis of any of the impacts from significant water supply reductions and the DEIR is inadequate.

Project Size. According to the DEIR, the county contains prime agricultural lands that "...are capable of supporting commercially viable agricultural operations on minimum 9-acre parcels. According to the most recent data from the USDA (2017), the majority of farms in the county are less than 50 acres and approximately half of the farms are less than 10 acres."

Despite this data, the General Plan sets a minimum lot size for Agriculture that is at least four times larger than half of the existing farms:

Policy LU-8.3: Minimal Parcel Size for the Agricultural Land Use Designation. The County shall ensure that the smallest minimum parcel size consistent with the Agricultural land use designation is 40 acres. The County may require larger minimum parcel sizes based on the zone classification.

For farms located in an Open Space land-use designation, the minimum lot size is 10 acres. These policies may make more than half of all farms nonconforming with the underlying General Plan. The probability that a nonconforming farm lot was created legally is extremely low. Over the extended life of the plan, the impacts on agricultural resources are potentially profound.

I41-3

LU 4-4 and Sec. 8113-8 of the Non-Coastal Zoning Ordinance, for example, prohibit the allowed uses on a nonconforming lot unless it is a legal lot. No building permits may be issued on an illegal lot. To correct most illegal lots requires a Conditional Certificate of Compliance and the conditions are not required to be feasible. Generally, consistency with the General Plan requires that the lot conform to the established minimum lot size. By setting the minimum lot size larger than most of the existing farms, the General Plan will require that illegal lot owners purchase adjacent land. If that land is not available or too expensive, the county may shut down the existing agricultural use and/or deny any new permits.

The General Plan sets minimum lot sizes larger than more than half of the County's farms and larger than what the County determined was necessary for commercial viability. There is no analysis of how many farms may be impacted by these policies or how they could result in the conversion to non-agricultural uses.

The conversion to non-agricultural uses under CEQA is not predicated on establishing an alternative land use designation. Any use or having no use that results in stopping the

I41-4

production of agriculture constitutes a conversion. The DEIR fails evaluate all potential impacts and must be rewritten and subsequently recirculated for review.

I41-4
cont.

Thank you in advance for your consideration.

Respectfully,



David S. Armstrong
P.O. Box 25010
Ventura, CA 93002

| | |
|-----------------------|-----------------------------------------------|
| Letter I41 | David S Armstrong February 27, 2020 |
|-----------------------|-----------------------------------------------|

I41-1 The comment asserts that the draft EIR does not adequately address impacts associated with proposed 2040 General Plan policies, specifically related to agriculture and forestry resources, because the impact assessment methodology does not account for the complexity of the 2040 General Plan. The comment also introduces more detailed comments below as based on the California Agricultural Land Evaluation and Site Assessment (LESA) Model.

The LESA model is a point-based approach for rating the relative importance of agricultural land resources that was developed by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. It is based upon specific, measurable features at the parcel scale and is most appropriately applied at the project level. Refer to response to comment I41-2 and I41-3, below, for detailed response.

The draft EIR analyzes, at a programmatic level, the physical changes that could occur upon implementation of the 2040 General Plan. Contrary to the commenter’s assertion, the analysis of potential agricultural impacts is not limited to evaluation of direct land use conflicts. As explained under the subheading “Methodology” on page 4.2-3:

The analysis considers whether future development under the 2040 General Plan could result in loss of agricultural resources or conversion of agricultural resources to non-agricultural uses by allowing for non-agricultural land uses to be located directly on existing designated farmland. It also considers whether the 2040 General Plan would result in indirect loss of agricultural resources by allowing for non-agricultural land uses adjacent to classified farmland. Examples of indirect losses of agricultural resources due to land use conflicts include: decreased solar access due to building heights from nonagricultural uses, dust exposure from construction or ongoing operations, and a reduction in available water resources for irrigation. Indirect loss of agricultural soils is due to increased wind and water erosion and direct loss of important soils is attributed to removal or permanent overcovering.

The discussion in the draft EIR under the subheading “Thresholds of Significance” explains the development of thresholds for the evaluation. As explained, the option to evaluate the 2040 General Plan based on the LESA model was not employed. Instead, thresholds were developed by combining the County of Ventura’s adopted Initial Study Assessment Guidelines, which include threshold criteria to assist in the evaluation of significant impacts for individual projects, and the sample questions provided in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. This has resulted in an appropriately thorough and CEQA-compliant evaluation of the potential for implementation of the 2040 General Plan to result in conversion of agricultural land.

The comment suggests that the draft EIR does not provide an analysis or meaningful mitigation of policies and mitigation measures that could result in the conversion of farmland to non-agricultural uses or create physical changes, but provides no specific examples. The draft EIR discusses the potential for direct and indirect loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance under Impact 4.2-1 beginning on page 4.2-9. Any future development that causes the loss of Important Farmland that exceeds the County’s acreage thresholds would be considered significant. Potential for conflicts between Farmland and non-agricultural uses to result in conversion or loss of agricultural land is evaluated in Impact 4.2-2 beginning on page 4.2-17 of the draft EIR. As summarized on page 4.2-18, the 2040 General Plan includes policies and programs that limit potential for land use conflicts in addition to the County’s robust existing regulatory framework established to protect agricultural resources; therefore, potential for conflicts would be minimal.

I41-2

The comment states that the draft EIR does not quantify existing conditions or anticipated changes in water availability for agricultural uses. Refer to response to comment A13-11 for a discussion of available water resources for irrigation and indirect impacts to agricultural land. Also refer to response to comment O7-4 addressing the availability of water for the agricultural industry.

Specifically, the commenter cites the proposed groundwater sustainability plan for the Oxnard Basin and restrictions on water use purportedly proposed by Fox Canyon Groundwater Management Agency. These changes are being made by water purveyors in response to State legislation and are not part of the 2040 General Plan. A reduction in available water resources that causes conversion of farmland is not a potential impact of the project and is, therefore, appropriately excluded from the draft EIR impact discussion.

Although the comment states that the proposed 2040 General Plan policies will play a significant role in the conversion of farmland to non-agricultural uses, no specific areas of concern are identified. Refer to response to comment I41-1, above, regarding the draft EIR’s discussion of potential conversion of farmland to non-agriculture uses and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.

I41-3

The comment states that the 2040 General Plan would create minimum lot size requirements for the Open Space and Agricultural land use designations, which it asserts would make more than half of farms in the county non-conforming with the

General Plan, and that as a result existing agricultural uses would be shut down or otherwise become non-agricultural uses. The comment further states that there is no analysis of the effect that policies establishing minimum parcel sizes could have on existing agricultural operations. Because these existing land uses would be considered non-conforming, the comment indicates that the 2040 General Plan could impair the ability for agricultural properties that do not meet the parcel size requirements to obtain building permits. The 2040 General Plan proposes no change in the minimum lot sizes of any land use designations. Therefore, the commenter's assertion that the 2040 General Plan would create new minimum lot size requirements is inaccurate. Furthermore, EIRs are not required to speculate about a project's environmental impacts (State CEQA Guidelines, § 15145). As an initial matter, the 2040 General Plan would not make or require any regulatory changes that would render any existing legal lot nonconforming as to minimum lot size. Moreover, no County land use approval is needed to engage in agricultural production regardless of the size of the parcel or its conformance to the applicable minimum lot size. In addition, there is no blanket prohibition on the issuance of building permits for structures proposed on legal lots that do not conform to the applicable minimum lot size. There is no evidence that existing agricultural uses would be "shut down" or that building permits would be denied if landowners do not purchase adjacent land to increase lot sizes to conform to the minimum lot size requirements of the 2040 General Plan. Discussion of potential indirect effects related to minimum lot sizes would be speculative and would not significantly change the analysis or conclusions of the draft EIR. No changes to the draft EIR have been made in response to this comment.

I41-4 The comment suggests that any outcome of the 2040 General Plan "that results in stopping the production of agriculture constitutes a conversion" pursuant to CEQA and asserts that the draft EIR fails to evaluate all potential impacts.

In fact, the evaluation of the effect of a project on agriculture under CEQA addresses conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as defined by the United States Department of Agriculture (see Pub. Res. Code, § 21060.1 and Section II.a of Appendix G to the State CEQA Guidelines). Changes to the existing environment are also evaluated for their potential to result in conversion of Farmland to non-agricultural use (see Section II.e of Appendix G). Therefore, the analysis in the draft EIR appropriately addresses effects to land that meets the requirements of these designations; an evaluation of all land in agricultural production is not required. Further, CEQA does not define the term "conversion" for the purpose of this evaluation. See response to comment O5-29 for additional discussion of agricultural conversion.

As discussed in response to comments I41-2 and I41-3, above, there is no evidence that the policies and implementation programs proposed in the 2040 General Plan would result in changes to the existing environment that would cause conversion of farmland to non-agricultural use beyond those analyzed in the draft EIR. The potential for specific future projects to conflict with, or cause the conversion of, agricultural land would be evaluated at the project level. As discussed on page 4.2-17 of the draft EIR, the potential to result in the conversion of Farmland is considered a significant and unavoidable impact due

to the potential that future projects could result in direct or indirect loss of Important Farmlands because there are no actions or policies that the County could feasibly mandate to fully replace the loss of Important Farmland. Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Letter
I42

REC'D FEB 27 2023

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I am a part of the McLoughlin Family. We have been farming in Ventura County for approximately 150 years. We currently own 300 acres of agricultural property off of Olivas Park Road in the County of Ventura near the Ventura Marina on Harbor Rd, in proximity to the City of Ventura.

The McLoughlin family has farmed this land and other parcels for generations going back to 1863. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it's not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no "substantive" change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I42-1

I42-2

I42-3

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I42-4

I appreciate your consideration.



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| Letter I42 | David Czarnecki February 27, 2020 |
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This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I42-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.
- I42-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.
- I42-3 Refer to response to comment I8-4 and Master Response MR-2 regarding the 2040 General Plan's consistency with the Save Open Space and Agricultural Resources initiative.
- I42-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Saturday, January 25, 2020 2:02 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
I43**

You have a NEW Comment

Name:

dawn kuznkowski

Contact Information:

2361 Calle Malvon Thousand Oaks CA 91360

Comment On:

resources/open space/conservation

Your Comment:

I am very concerned that Ventura County is not taking drastic enough steps to protect our drinking water, and air quality from contamination from the oil industry. In a time of drought we should have a moratorium on fracking. Flaring is contaminating our air and it's avoidable and there are solutions. Sadly it's business as usual even though our air quality and water quality are continually suffering from the oil industry. We need forward thinking in our general plan to tackle climate change and really make a measurable difference. Please phase out fossil fuel production, maintain policy COS-7.8 and protect our finite water supply, and our air quality. Thank you. Dawn Kuznkowski

I43-1

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|-----------------------|---------------------------------------------|
| Letter I43 | Dawn Kuznkowski February 25, 2020 |
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I43-1 Refer to Master Response MR-4, Section MR-4.A County's Authority to Regulate Oil and Gas Development, Section MR-4.F Flaring, and Section MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations), regarding the findings and conclusions related to the County's authority to prohibit specific activities such as hydraulic fracturing, flaring in oil and gas operations, and phasing out the oil and gas industry.

February 25, 2020

Letter
144

Susan Curtis, Manager, General Plan Section Update
 Ventura County Resource Management Agency, Planning Division
 800 S. Victoria Ave., L #1740
 Ventura, California 93009

via email: GeneralPlanUpdate@ventura.org

Re: General Plan Update Draft Environmental Impact Report Comments

Dear Ms. Curtis,

We are royalty owners who have lived in Ventura County for 71 years. We support continued local oil and natural gas production. Royalty and mineral rights owners have a legally vested interest in mineral rights. We have many concerns regarding the economic impact of the Draft Environmental Impact Report (DEIR).

Upon further review of the DEIR, we believe that the document has a bias against local oil and gas producers. COS-7.2 mandates a 2,500-foot setback for oil and gas wells in the unincorporated areas of the County. This arbitrary setback does little to safeguard public health and safety. It does however lead to an unavoidable shutdown of many existing oil operations. The DEIR itself states that, "There are no actions or policies that the County could feasibly mandate to fully reduce the impact that Policy COS 7.2 would have on hampering or precluding access to petroleum resources. This impact would remain significant and unavoidable". It is of concern to us that this new policy would leave the County vulnerable to millions of dollars in lawsuits if passed.

The DEIR neglects to accurately assess the financial impact of setbacks on the County. The DEIR cites Assembly Bill 345 to support the new setback policy. This is inappropriate given that AB 345 is stalled in the state legislature last year. The legislature's analysis of AB 345 estimated a loss of up to \$3.5 billion in revenue from reserves in the setback zone, and that the bill was so draconian that it would likely lead to lawsuits. It is not the policy Ventura County should be looking to model.

The City of Los Angeles Department of Public Works Office of Petroleum and Natural Gas Administration recently published a report that concluded: "The estimated potential cost to the City of establishing a setback distance on existing operations is \$724 million, which includes the minimum value of the current oil production, land value costs, well abandonment costs, environmental clean-up costs and five years of litigation expenses." Future operations subject to setback policies could be as high as \$97.6 billion in compensation for the future value of mineral rights owed from takings litigation.

I44-1

The DEIR does not consider minimum value of the current oil production, land value costs, well abandonment costs, environmental clean-up costs and five years of litigation expenses like the City of Los Angeles Department of Public Works Office of Petroleum and Natural Gas Administration report. The true cost of setbacks is missing from this DEIR.

Any effort to infringe upon legally vested rights is concerning. We believe local energy production contributes to a vibrant economy and provides an affordable reliable energy source for the state. Ventura County is lucky to have this natural resource. The DEIR should be revised and recirculated to accurately reflect oil and gas revenue as it pertains to mineral rights owners.

I44-1
cont.

Sincerely,

Dennis Reynolds

Dennis Reynolds
Royalty Owner

P.O. Box 1776
Camarillo CA 93011

| | |
|-----------------------|---------------------------------------------|
| Letter I44 | Dennis Reynolds February 25, 2020 |
|-----------------------|---------------------------------------------|

I44-1 The comment expresses concern about the economic impacts of the draft EIR and asserts that the draft EIR is biased against oil and gas producers. The comment apparently conflates the draft EIR with the 2040 General Plan. The 2040 General Plan is the genesis of Policy COS-7.2; the draft EIR evaluates the potential for the policies and programs proposed in the 2040 General Plan to hamper or preclude access to the resource (refer to Impact 4.12-3). As noted by the commenter, the draft EIR determines that the effect of the 2040 General Plan would be significant and unavoidable.

EIRs are not required to treat a project's economic or social effects as significant effects on the environment (CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. Therefore, the commenter's concerns about the fairness and the financial implications of Policy COS-7.2 are appropriately excluded from discussion in the draft EIR. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

For further discussion of the setback proposed in COS-7.2, as well as draft EIR Mitigation Measure PR-1, which would reduce the minimum setback for schools from 2,500 feet to 1,500 feet, refer to Master Response MR-4. Master Response MR-4 also provides further context regarding the County's authority to regulate oil and gas development (MR-4.A), antiquated permits and takings (MR-4.B), and the underlying motives of the proposed oil and gas policies (MR-4.C).

Regarding the comment that the draft EIR should be recirculated, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: VC2040.org Comments <alan.brown@ventura.org >
Sent: Thursday, February 27, 2020 4:55 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:
Derek McLaughlin

Contact Information:
760-579-1437 271 S Ventura Rd #299 Port Hueneme

Comment On:
Draft Environmental Impact Report

Your Comment:

Don't allow expansion of the port in Port Hueneme. I live about 1/3 of a mile east of it & often I & thousands of others are downwind of it. It already has far too much air pollution. At least make them have all large vessels plug into the grid upon arrival before any expansion is seriously considered or have to install excellent air pollution equipment on their exhaust, such as scrubbers like those on one of the Wallenius Wilhelmsen auto carriers.

Even without any thought of port expansion, cleaning up the port's air pollution & the ships while in port needs to be much further the list of county air pollution priorities. Many schools are downwind of the port & almost always people are downwind of it.

Quite putting so many new residential units in highly air polluted areas near freeways. Bad for the residents till we have much cleaner fleets of vehicles.

Try hard to avoid more of the coast being lined with rip-rap & seawalls. Keep the shoreline way more natural than that. Discuss-sting when you go north of the city of Ventura. So much of the coast is rip-rap instead of natural beaches, dunes, wetlands, bluffs etc.

Regarding two things from Aug. 6, 2019 Board of Supervisor hearing, session I attended: one, Supervisor Parks idea on tree planting has a lot of good points though we must consider if more greenhouse gases will be produced than the trees make up for, by the transporting of water to water them & if water trucks will be used to water many of them. I've heard &/or read the Calif. Water Project is the largest user of electricity in the state & that's just one of the 3 large aqueduct systems that bring water to So. Calif. Water trucks should be electric, hydrogen or better, otherwise will also have air pollution from them. One fellows 90 seconds comment that day addressed problem if the trees degrade the natural ecosystems of the county. I agree that's a serious concern though Parks said we should use drought tolerant trees which will help narrow the choose to natives & a few others. That's good. We could concentrate on replacing native trees where they have been removed with natives. I think eucalyptus tend to drop stuff on the ground that prevent native plants from growing plus they blow over easy & aren't native & probably bad in fires.

2nd: I agree with all of supervisor Bennett's comments on climate change he mentioned on Aug. 6th. Not to downplay all the very important other considerations of the general plan, but I strongly feel that is the most important issue the county should address in the general plan.

Try to help insure we always have the Oxnard performing arts center

I45-1

I45-2

I45-3

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|-----------------------|------------------------------------|
| Letter I45 | Derek McLaughlin No date |
|-----------------------|------------------------------------|

- I45-1 The comment raises concerns about current operation and expansion of the Port of Hueneme, locating residential units near freeways, and preservation of natural shorelines. The comment does not clearly address the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Note that the effects of the 2040 General Plan on air quality are addressed in the draft EIR in Section 4.3, "Air Quality." Specifically, Impact 4.3-5 (starting on page 4.3-20) analyzes the potential impacts to sensitive receptors from locating new residential development and other sensitive uses near high traffic volume freeways and roadways and other sources of toxic air contaminants. The draft EIR proposes Mitigation Measure AQ-3, which, as revised in the final EIR, would require that new sensitive receptors not be located within 1,000 feet of any freeway or roadway experiencing traffic volumes that exceed 50,000 vehicles per day, respectively, unless a site-specific Ventura County Air Pollution Control District-approved health risk assessment shows that associated levels of cancer risk at the sensitive receptors would not exceed 10 in 1 million. Refer to final EIR Chapter 3, "Revisions to the draft EIR," for the revisions to Mitigation Measure AQ-3.
- I45-2 The comment is related to implementation of Policy COS-1.15, proposed in the 2040 General Plan, through which the County would establish a goal to plant two million trees by 2040. The comment expresses concern about the greenhouse gas emissions associated with embedded energy of water that would be used to irrigate the trees and the potential for nonnative trees to degrade natural ecosystems.
- The draft EIR analyzes, at a programmatic level, the physical changes that could occur upon implementation of the 2040 General Plan; this includes planting trees pursuant to Policy COS-1.15 which states "The County shall establish and support a countywide target for the County, cities in Ventura County, agencies, organizations, businesses, and citizens to plant two million trees throughout the county by 2040." The commenter recommends that this policy should require native and drought tolerant trees. The effects of the 2040 General Plan on natural ecosystems, greenhouse gas emissions, and air quality, are addressed in the draft EIR in Section 4.4, "Biological Resources," Section 4.8, "Greenhouse Gas Emissions," and Section 4.3, "Air Quality," respectively. The location, species, and program for establishing the trees planted pursuant to Policy COS-1.15 have not been established. Furthermore, the policy encourages the planting of trees throughout Ventura County, regardless of jurisdictional boundaries and property owner (e.g. unincorporated versus city and private versus public entity) and provides broad flexibility in the species and type of trees planted to achieve this goal. For this reason, it is not possible to provide a detailed analysis of the

potential water demand and source of water to establish the trees. Additionally, because this policy encourages a wide range of opportunities to plant up to two million trees countywide, it does not limit the species and type of trees. An EIR is not required to speculate about environmental impacts. It is anticipated that implementation of this policy would not conflict with the County's programs related to water use efficiency, promotion of renewable energy, and preservation of natural communities. Also, the GHG projections included in the 2040 General Plan and draft EIR account for GHG emissions associated with the embedded energy of future water consumption, which includes water for irrigation.

This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I45-3

The comment states that climate change is the most important topic addressed in the 2040 General Plan and requests that the County preserve the Oxnard Performing Arts Center. The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. Refer to Master Response MR-1 for a discussion of the Climate Action Plan that is incorporated into the 2040 General Plan. Climate change is also addressed in the draft EIR in Section 4.8, "Greenhouse Gas Emissions."

From: Diana Kubilos <kubilos.d@gmail.com>
Sent: Thursday, February 27, 2020 5:03 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: VC2040 General Plan Input Re Climate Change Mitigation

**Letter
I46**

Dear Ms. Susan Curtis,

As a member of the Ventura County Climate Hub, I have signed my name to the very thorough petition sent by the organization regarding the climate change mitigation- related components of the VC2040 Draft General Plan (and EIR). I also wanted to add a emphasize a few more points personally, covering some core areas regarding the urgent and vital climate change mitigation work we need to do, especially in the next decade.

I46-1

Community Collaboration

Establish a Citizen Advisory Committee, to work with the Board of Supervisors (and relevant County staff), to help both give input to climate change mitigation efforts, as well as advise the County on critical community resilience- building work.

Sustainable Transport

Since the transportation sector is a core contributor to carbon emissions, we need to follow the lead of model green cities (such as Portland, Oregon), and establish cycling/walking linkages throughout core routes in our cities. I live in Ventura, and believe people here are desperate for more sustainable and healthy transport options.

I46-2

Food Security

Please include edible, fire-mitigating, and indigenous trees in Supervisor Parks' 'two million trees' planting campaign.

Water Security

Please support community water resilience- building projects, such as one the Climate Hub is planning, called 'Transition Streets'

Thank you for your critical work,
Diana Kubilos

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| <p>Letter I46</p> | <p>Diana Kubilos February 27, 2020</p> |
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I46-1 The commenting individual’s participation in Ventura County Climate Hub is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required. Refer to the responses to Letter O1 for responses to the comments raised in the petition.

I46-2 The comment provides suggestions about the types of programs that could be included in the 2040 General Plan. These include a citizen advisory committee to provide input about the climate change and community resilience, support for trails and sustainable transport, refinement to Policy COS-1.15 to address food security through the types of trees that would be planted, and “Transition Streets.” As explained in draft EIR Table 4.8-6 (page 4.8-40) and in the text (page 4.8-44), the 2040 General Plan includes several programs that would reduce GHG emissions by reducing vehicle miles traveled and promoting trips by people walking and biking, and other options to driving alone (Programs CTM-A, and CTM-I to CTM-O). The 2040 General Plan also includes programs to reduce GHG emissions through water efficiency and conservation as explained on page 4.8-44. The 2040 General Plan also would include programs that reduce GHG emissions associated with the hauling and production of food including encouraging local consumption of locally produced food (page 4.8-33). The 2040 General Plan also includes Implementation Program COS-CC, which would establish a Climate Emergency Council to advise the Board of Supervisors on implementation of the climate action plan goals, policies, and programs of the 2040 General Plan.

The draft EIR includes Mitigation Measure GHG-4, in which the Climate Emergency Council would develop recommended subprograms to implement the 52 GHG reduction policies of the 2040 General Plan that do not have associated implementation programs (draft EIR Table 4.8-7, page 4.8-45). Refer to final EIR Chapter 3, “Revisions to the draft EIR,” for revisions to Mitigation Measure GHG-4.

The comment does not identify how these changes to the 2040 General Plan would address environmental effects found to be significant in the draft EIR. Therefore, no further response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

Diane Diedrich
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
147

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I47-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I47-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I47-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I47-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I47-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I47-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I47-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I47-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I47-9

Sincerely,



Diane Diedrich

| | |
|-----------------------|--------------------------------------------|
| Letter I47 | Diane Diedrich February 24, 2020 |
|-----------------------|--------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I47-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I47-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I47-3 Refer to response to comment I4-3 regarding water availability and cost.
- I47-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I47-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I47-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I47-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I47-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I47-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

Dominick McCormick
c/o Hoffman, Vance & Werthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
148

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I48-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I48-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I48-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I48-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I48-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I48-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I48-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I48-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I48-9

Sincerely,



Dominick McCormick

| | |
|-----------------------|------------------------------------------------|
| Letter I48 | Dominick McCormick February 24, 2020 |
|-----------------------|------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I48-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I48-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I48-3 Refer to response to comment I4-3 regarding water availability and cost.
- I48-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I48-5 Refer to response to comment I4-5 regarding the commenter’s request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I48-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I48-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I48-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6
- I48-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

February 25, 2020 - **via email**
 P.O. Box 5119
 Ventura, CA 93005-0119

Letter
149

Ms. Susan Curtis, susan.curtis@ventura.org
 Ventura County Resource Management Agency, Planning Division
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740

Subject: Comments on the Draft Environmental Impact Report for the 2040 Ventura County General Plan Update (Planning Division Case Number PL17-0141)

Dear Ms. Curtis:

My name is Donald Price and I am an environmental engineer retired from the Ventura County Air Pollution Control District. Please accept the following comments regarding the Draft Environmental Impact Report (DEIR) for the 2040 Ventura County General Plan Update.

I49-1

- 1) The frequency of Greenhouse Gas (GHG) Strategy Implementation and Monitoring reports and GHG emission inventory updates have been extended beyond agreed limits.

DEIR, January 2020, 2040 General Plan Implementation Programs, Conservation and Open Space Element (COS), Page 4.8-27:

Implementation Program Z: Public Reporting on GHG Strategy Progress. The County shall prepare public reports on the results of GHG Strategy implementation and monitoring and present these reports to the Board of Supervisors. The first report shall be submitted to the Board of Supervisors two years after the approval of the General Plan, after which the Board of Supervisors will determine the appropriate reporting interval. The County shall also present a more detailed progress report to the Board of Supervisors, including results of the latest GHG inventory update, every five years.

I49-2

Implementation Program AA: GHG Inventory Updates. The County shall update the County's GHG emissions inventory at least every five years.

The above reflects a significant change in the schedule for preparation of GHG Strategy Implementation and Monitoring reports and GHG emission inventory updates based on the last known discussion of the subject by the Board of Supervisors on August 6, 2019.

Appendix B: Climate Change, May, 2019, Table B-9, Page B-17:

V - Public Reporting on GHG Strategy Progress

The County shall prepare public reports on the results of GHG Strategy implementation and monitoring and present these reports to the Board of Supervisors at least annually. The County shall also present a more detailed progress report to the Board of

February 25, 2020
Ms. Susan Curtis, VCRMA, Planning Division
Page 2 of 5

Supervisors, including results of the latest GHG inventory update, at least every five years. [Source: *New Program*]

As noted in Program V above, GHG Strategy Implementation and Monitoring reports were scheduled annually in the Preliminary Draft General Plan Update. GHG emission inventory updates were proposed every five years. However, on August 6, 2019, Supervisor Bennett made it clear that five years between GHG emission inventory updates is not acceptable.

August 6, 2019, Board of Supervisors, Supervisor Bennett, [interpretation added]:

“In another place in the plan, we are going to have an annual update; it already says we’re going to have an annual update. It’s just not a greenhouse gas emissions inventory update. We will have an update... We will have it annually...”

“At the same time, waiting 5 years [for a GHG emission inventory update] seems like a long time. One thought I had was, everybody’s going to want that first early check... At the 2 year mark, let’s have our first attempt; let’s see where we are. And then actually say it’s up to the Board to decide how often they want to do it after that. So, you don’t lock it in and say five years, and have everybody go ‘this Board’s just gonna ignore this’ because it’s every five years...”

“I think we’ve got to give everybody confidence that the first greenhouse gas emissions inventory [update] is going to happen fairly promptly, and you don’t set a five-year precedent.”

I agree with Supervisor Bennett; five years is too long to wait for a GHG emission inventory update. As I interpret his remarks, the first GHG inventory update should be done within two years of General Plan adoption, after which the Board will decide GHG inventory update frequency. At no time did the discussion involve the GHG annual implementation and monitoring report. I can find no further Board discussion or activity on this issue, so I do not know if the Board approved, modified or abandoned Supervisor Bennett’s proposal.

Nevertheless, I support GHG emission inventory updates every two years, as proposed by both Supervisor Bennett (for the initial report) and the Planning Commission.

2) The proposed Climate Action Plan (CAP) will never meet either the 2030 or 2040 GHG emission reduction targets.

As noted in Table 4.8-3 below, Ventura County GHG emission reduction targets have been calculated for the years 2020, 2030, 2040 and 2050. Also included are the GHG reductions needed to meet the targets, calculated from the baseline 2015 GHG emission levels for Ventura County. However, based on estimated emission reductions from “quantified” GHG reduction programs, neither the 2030 or 2040 targets will be met.

DEIR, January 2020, Page 4.8-40

I49-2
cont.

I49-3

February 25, 2020
 Ms. Susan Curtis, VCRMA, Planning Division
 Page 3 of 5

Implementation of the quantified policies and programs in Table 4.8-5 would collectively provide reductions of 151,903 MT CO₂e by 2030, an approximate 9 percent reduction from forecast 2030 levels and 30 percent of the reductions needed to meet a target of 1,113,972 MT CO₂e for consistency with emissions targets identified in Policy COS-10.2 (41 percent below 2015 levels by 2030). An additional 361,250 MT [metric tons per year] CO₂e of reductions would be needed to close the gap with the 2030 target.

The shortfall for 2040 is 644,032 MT CO₂e per year. See table from Appendix D below.

DEIR, January, 2020, Page 4.8-7

Greenhouse Gas Emissions

Table 4.8-3 2040 General Plan Target Reduction from 2015 Baseline Emissions Levels, 2020 to 2050

| | 2020 | 2030 | 2040 | 2050 |
|------------------------------------------------------------------------------------------|-----------|-----------|---------|-----------|
| Target Percentage Below 2015 Baseline GHG Emission Levels | 2.1% | 41.3% | 60.9% | 80.4% |
| GHG Emissions Target (MT CO ₂ e) | 1,856,620 | 1,113,972 | 742,648 | 371,324 |
| GHG Reductions Needed from Forecast GHG Emissions to Meet Targets (MT CO ₂ e) | -62,649 | 513,153 | 797,982 | 1,162,398 |

Notes: the negative number for GHG reductions in 2020 means that the forecast GHG emissions for 2020 will be below the 2020 target.

Source: Ascent Environmental, 2019

Appendix D, issued January, 2020, GHG Calculation Summary, unmarked chart on page 2

I49-3
 cont.

| GHG Gap Analysis (MT CO ₂ e / YEAR) | | |
|----------------------------------------------------|------------------|------------------|
| SECTOR | 2030 | 2040 |
| Building Energy Total | 285,079 | 225,567 |
| Transportation Total | 487,058 | 446,355 |
| Solid Waste Total | 278,381 | 270,289 |
| Water and Wastewater Total | 13,148 | 13,148 |
| Off Road Equipment Total | 52 | 52 |
| Agriculture Total | 248,882 | 241,541 |
| Stationary Source Total | 314,526 | 343,679 |
| Legislatively Adjusted GHG Emissions Total | 1,627,124 | 1,540,630 |
| Target for Consistency with State Climate Policies | 1,113,972 | 742,648 |
| Reductions Needed to meet GPU Targets | 513153 | 797982 |
| CTM-B | -3454 | -5111 |
| CTM-C | -47231 | -78405 |
| CDS-S | -2019 | -3367 |
| COS-8.4 | -59972 | -20445 |
| COS-W | -5042 | -6677 |
| COS-H | -354 | -708 |
| AG-H | -33830 | -39236 |
| Quantified Reductions | (151,903) | (153,950) |
| Gap Remaining | 361,250 | 644,032 |

February 25, 2020
 Ms. Susan Curtis, VCRMA, Planning Division
 Page 4 of 5

“Quantified” GHG emission reductions are described in Table 4.8-5 (and the Appendix D table above). Table 4.8-6 lists CAP programs with “qualitative” GHG reduction benefits.

Table 4.8-6 provides an overview of 2040 General Plan programs that would result in additional GHG emissions reductions, and achieve additional progress toward meeting the 2030 GHG reduction target.

Forty-three (43) programs are listed in Table 4.8-6. Of these, I believe only twelve (12) may result in measurable GHG emission reductions. These are:

| Program | Description | Monitoring Procedure |
|-----------|-----------------------------------------------------|-------------------------------------------|
| AG-I/J | Transition farm water pumps from diesel to electric | Count new electric pumps |
| COS-M | Tax Oil and Gas facilities | Track oil and gas production |
| COS-P | Energy Reach Codes | Track projects. Track Title 24 compliance |
| COS-S | All electric new residential with solar | Track projects. Track Title 24 compliance |
| COS-T | Energy efficiency in county owned buildings | Track projects |
| HAZ-Q/W | Local zero carbon energy generation | Track projects |
| HAZ T/U/V | Energy efficiency in new construction | Track projects. Track Title 24 compliance |
| PFS-A | Energy efficiency in county owned buildings | Track projects |

I49-3
 cont.

In addition, Table 4.8-7 (Page 4.8-45) lists 52 GHG emission reduction policies with NO implementation program. Measurable emission reductions from these policies are unlikely.

DEIR, January 2020, Page 4.8-52

Additionally, longer term GHG reduction goals beyond 2030 established by State executive orders would necessitate additional or more stringent GHG reduction policies and programs beyond what is presented in the 2040 General Plan...Although the 2040 General Plan would not conflict with State GHG reduction targets and recommended local actions established in the 2017 Scoping Plan, and the 2040 General Plan would set future GHG emissions on a downward trajectory consistent with State reduction targets, it cannot be determined at this program level of analysis that future emissions within the county meet State 2030 and post-2030 targets for GHG reduction. Therefore, this impact would be **significant and unavoidable**.

This means that it is likely to be completely impossible for Ventura County to achieve its future GHG emission reduction goals with the proposed climate action plan. The cooperation of every agency in the county (local, state or federal) with a stake in energy efficiency, transportation, water use, and air pollution will be required to meet our GHG emission reduction goals.

February 25, 2020
 Ms. Susan Curtis, VCRMA, Planning Division
 Page 5 of 5

- 3) The prohibition on new natural gas infrastructure may be premature; it may be possible to distribute hydrogen for fuel cell electric vehicles through this delivery system

DEIR, January 2020, Page 4.8-46

Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development

To support the proposed reach codes under COS-S, the 2040 General Plan shall include a new program in the Hazards and Safety element that prohibits the installation of new natural gas infrastructure in new residential construction through amendments to the Ventura County Building Code. This program shall also be extended to include commercial building types such as offices, retail buildings, and hotels where the use of natural gas is not critical to business operations and contain appliances that can be feasibility substituted with electricity powered equivalents.

No one is more interested in closing down the fossil fuel industry and transitioning to 100 percent clean renewable energy than I am. However, in the future, blending hydrogen into natural gas pipeline networks (or distributing pure hydrogen through these networks) may be possible. This would enable fuel cell electric vehicle (FCEV) fueling at homes or businesses. Fuel cells produce only electricity and water and FCEVs may be an important transportation alternative in the future. Blending would eliminate the cost of building dedicated hydrogen pipelines for this purpose. There are issues with the process (like safety, material durability and integrity management, leakage, downstream extraction) that are likely to be overcome. Therefore, it may be premature to ban new natural gas pipeline infrastructure.

I49-4

For more information, see the following paper from the National Renewable Energy Laboratory:
 "Blending Hydrogen into Natural Gas Pipeline Networks: A Review of Key Issues"
 Authors: M. W. Melaina, O. Antonia, and M. Penev
 NREL/TP-5600-51995, March 2013

- 4) I appreciate that a climate action plan is included in the 2020 General Plan. However, it is unlikely that this plan will prevent serious sea level rise, increased heat, increased fire, and water shortages in Ventura County between now and 2100. The IPCC clearly warn that we have only a few years to make a transition away from fossil fuel use if we are to have any chance of avoiding devastating climate impacts. Transitioning to clean renewable energy is essential.

I49-5

Thank you for your consideration.

Signed,



Donald R. Price (drp@cefogg.com)

c: Clerk of the Board, clerkoftheboard@ventura.org
GeneralPlanUpdate@ventura.org

| | |
|-------------------|------------------------------------------|
| Letter I49 | Donald Price February 25, 2020 |
|-------------------|------------------------------------------|

I49-1 The description of the commenting individual’s role as an environmental engineer is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

I49-2 The comment states that the frequency of greenhouse gas (GHG) strategy implementation and monitoring reports and GHG emission inventory updates have been extended beyond agreed limits associated with Implementation Program Z and Implementation Program AA in the Conservation and Open Space Element of the 2040 General Plan. While these policies are included in Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR, the comment addresses policies and implementation programs of the 2040 General Plan and is not related to the adequacy of the draft EIR.

Program Z and Program AA both support implementation and monitoring of the GHG reduction strategy (refer to Table 4.8-8 in the draft EIR). Program Z supports public participation by establishing a process for communication and public feedback on strategies. Program AA would require updates to the GHG emissions inventory to track GHG reduction performance at 5-year intervals. The comment provides no evidence that requiring update of the inventory at 2-year intervals would result in improved management and reduction of GHG emissions. There would be no change to the analysis or conclusions in the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I49-3 The comment addresses the GHG inventory prepared for baseline levels (2015) and future target years (2020, 2030, 2040, and 2050). The comment notes that the County may not achieve State targets and calls attention to the draft EIR’s significant and unavoidable conclusion for Impact 4.8-2 (Conflict with an Applicable Plan, Policy, or Regulation for the Purpose of Reducing the Emissions of GHGs). The draft EIR GHG analysis demonstrates that the 2040 General Plan would set future GHG emissions on a downward trajectory consistent with State reduction targets, provides detailed discussion of the 118 policies and 45 implementation programs of the 2040 General Plan that are supportive of future GHG reductions, and provides detailed discussion of why the County cannot determine at this time that future GHG emissions would align with State 2030 and post-2030 targets for GHG reduction. Refer to Master Response MR-1 for a discussion of these targets and additional details pertaining to the methodology used to estimate GHG emissions for these years.

I49-4 The comment suggests that the implementation of Mitigation Measure GHG-1 may be premature because it may be possible in the future to use natural gas pipelines to distribute hydrogen for fuel cell electric vehicles, if fuel cell electric vehicles become widely available, although, as the commenter acknowledges, there are several issues with the feasibility of such a proposal. Decarbonization

of future residential and commercial buildings through prohibition of natural gas infrastructure under Mitigation Measure GHG-1 is consistent with the trajectory of Part 6 of Title 24 of the California Building Code (California Energy Code). The draft EIR identifies Mitigation Measure GHG-1 to reduce the potentially significant GHG emissions impacts of the 2040 General Plan (Impact 4.8-1 and Impact 4.8-2). Refer to final EIR Chapter 3, "Revisions to the draft EIR," for revisions to Mitigation Measure GHG-4. No further response to this comment is required.

- I49-5 This comment expresses appreciation that climate change is addressed in the 2040 General Plan, and notes that the 2040 General Plan will not on its own prevent anticipated impacts of global climate change from affecting the county, and refers to the need for worldwide transition away from fossil fuel use to renewable energy to avoid climate change impacts. This comment does not address the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

Dulanie Ellis-La Barre
206 So. Blanche St., Ojai, CA 93023

REC'D FEB 06 2020

February 3, 2020

Letter
150

RMA Planning Division, General Plan Update
800 So. Victoria Ave., L#1740
Ventura, CA 93009-1740

According to a recent study of data by the Washington Post, with an average temperature increase of 2.6 degrees Celsius since preindustrial times, **Ventura ranks as the fastest-warming county in the Lower 48 states.** The effects of climate change have impacted Ventura County profoundly — from the wildfires which have raged out of control to coastal infrastructure now threatened by sea-level rise.

We need to do better ... faster! Years of committee meetings must translate into action now. **The Climate Action Plan (CAP) is seriously incomplete** and lacks the technical and scientific input needed for a meaningful CAP. We are calling for a sense of urgency and an "all-hands-on-deck" effort to get it right. The county should contract immediately with a team like those employed by the city and county of Los Angeles in order to produce a robust plan capable of meeting the greenhouse Gas (GHG) emission reduction goals. At the same time, we must strengthen individual policies in the General Plan.

I50-1

Climate change is caused by fossil fuel production and consumption. **Ventura County is the third largest oil and gas-producing county in California.** As such, we must do our part to reduce oil production through thoughtful, rigorous policy to phase out production.

This CAP will set the policies that will drive land use decisions and projects that affecting GHG emissions for the next 20 years. The planet depends on each county, municipality and country to do this right.

Climate Action Plan policies must result in measurable, enforceable reductions sufficient to meet California's climate goals. We've had enough of vague, inspirational slogans like "encouraging" or "supporting" green policies, but little to no actions on the ground.

A recent NASA study documents that several Ventura County facilities, including **oil and gas operations, are "super-emitters" of powerful climate pollutants.** Stationary source emissions, including those from oil and gas operations, make up approximately 26 percent of all emissions in California. The time for rubber-stamping oil and gas projects needs to end. We need to phase out these "super-emitters" fossil fuel operations in Ventura County. We have plenty of sun and wind to build energy grids upon, creating new green jobs.

I50-2

The Ojai Valley, where I live, is known for airflow patterns that lock in airborne pollutants during the day, trapped in the Valley. The 2040 General Plan must strongly defend the 5-pound air emissions limit for the Ojai Valley. And buffers between oil and gas facilities and residential and schools should be increased from 1,500 to 2,500'.

I50-3

I50-4

805-640-1133 Fax: 805-640-7899 Cell: 805-798-0158
dulanie@sbcglobal.net

Dulanie Ellis-La Barre
 206 So. Blanche St., Ojai, CA 93023

Flaring is another, frankly, insane practice in today's climate change crisis. It should be allowed only in case of emergencies or testing purposes. The new General Plan MUST **maintain Policy COS-7.8**, as recommended by the Board of Supervisors, so that wells are required to collect gases and use or remove them. The complaint about addressing this being "too costly" from the fossil fuel industry has always, and will always, be their excuse and failure to help right this self-caused crisis. **Frankly, Ventura County should immediately begin phasing out all fossil fuel development and production, given that we are the fastest warming county in the entire country!**

150-5

Fracking must be abandoned in Ventura County - If for no other reasons than FRACKING REQUIRES ENORMOUS USE OF WATER and contaminates aquifers. The droughts are only going to get worse, we cannot afford to destroy our water sources because of fracking - not to mention the role fracking plays in prompting earthquakes. We have enough to worry about without encouraging more earthquakes in Southern California.

150-6

Ventura County, for all its beauty and fertility of land and sea, has been in bed with the oil and gas industry, in the drilling and agricultural pesticides, for far too long and at great cost to our home environment and the future of life as we know it in Ventura County.

For example:

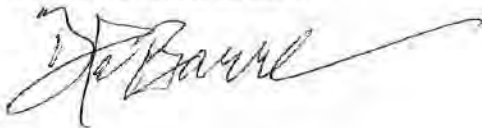
- A 2-day 'heat bomb' last year wiped out the avocado and citrus harvests in Ojai
- Rivers are drying up: Ventura has been over-drafting their water supply from the Ventura River at Foster Park for years and is blaming Ojai (who cut their water use by 40%)
- With sea level rise, we can expect saltwater intrusion (already a problem) to inundate the Oxnard Plain and devastate food production.
- Oxnard and Ventura coastal residential areas and harbors will be flooded.
- The Navy base is already trying to prepare for sea rise and impact to military abilities
- Wildfire storms will continue to devastate wild lands and our communities

150-7

Climate change is no longer theory. Our General Plan must be a robust response. We must implement rigorous, measurable, immediate steps in our General Plan if we are to the very real challenges we face.

With great expectation that you will respond favorably, we remain,
 Sincerely yours,

Dulanie & Douglas La Barre



805-640-1133 Fax: 805-640-7899 Cell: 805-798-0158
 dulanie@sbcglobal.net

| | |
|-----------------------|---------------------------------------------------------|
| Letter I50 | Dulaine and Douglas La Barre February 3, 2020 |
|-----------------------|---------------------------------------------------------|

- I50-1 For comments related to greenhouse gas (GHG) reduction planning concerns, refer to Master Response MR-1. For concerns regarding oil and gas, refer to Master Response MR-4.

- I50-2 The comment refers to some oil and gas operations in the county as “super-emitters.” Refer to Master Response MR-1 regarding oil and gas operations and how these activities are addressed in the GHG inventories prepared for the 2040 General Plan and draft EIR.

- I50-3 The comment requests that the 2040 General Plan “defend” the 5-pound air pollution limits for Ojai Valley. As discussed in the draft EIR and explained further in response to comment O20-14, the comment refers to a threshold of significance for daily reactive organic gas and nitrogen oxide emissions in the Ojai Valley which is referenced in the Ojai Valley Area Plan. This threshold, which applies to sources that are not permitted by the Ventura County Air Pollution Control District, was added to the Ventura County Air Pollution Control District’s Air Quality Assessment Guidelines in 1989 and the reference to this threshold was thereafter added to the Ojai Valley Area Plan in 1995. The 2040 General Plan would not change this threshold. The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- I50-4 Refer to Master Response MR-4, Section MR-4.H Buffers (Setback) regarding the findings and conclusions related to buffers (setbacks) in oil and gas operations.

- I50-5 Refer to Master Response MR-4, Section MR-4.F Flaring and Section MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations), regarding the findings and conclusions related to flaring and phasing out the oil and gas industry.

- I50-6 Refer to Master Response MR-4, Section MR-4.A, County’s Authority to Regulate Oil and Gas Development, regarding the County’s authority to prohibit specific activities such as hydraulic fracturing.

- I50-7 The climate change impacts summarized in the comment are noted. The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: Edward Chambers <echambers41@gmail.com>
Sent: Tuesday, February 25, 2020 9:44 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on County General Plan/EIR

Letter
I51

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

I51-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, "unlike the Preble area, services are not readily available to the Olivas lands." This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is "not included in the City's sanitation district because of problems with water pressure." This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district's pipelines actually traverse our property.

I51-2

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I51-3

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.

I51-4

- 2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies. I 151-5
 - 3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant." I 151-6
 - 4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable. I 151-7
 - 5. The Plan does not adequately evaluate the impacts of increased competition for water in our community. I 151-8
- The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input. I 151-9

Sincerely,
Edward Chambers, MD

| | |
|-----------------------|-------------------------------------------------|
| Letter I51 | Edward Chambers, MD February 25, 2020 |
|-----------------------|-------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I51-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I51-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I51-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I51-4 Refer to response to comment I9-5 regarding analysis of social and economic issues in the draft EIR.
- I51-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I51-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I51-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I51-8 Refer to response to comment I9-9 regarding water supply.
- I51-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: Margaret McMonigle <mmmcmonigle@sbcglobal.net>
Sent: Thursday, February 27, 2020 10:34 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Don and Beverly Denicola <de.nicola@cox.net>
Subject: Comments on General Plan/EIR

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|-----------------------|
| <p>Letter 152</p> |
|-----------------------|

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My wifes great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

I52-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

I52-2

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear In the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I52-3

I would also like to raise some additional concerns:

- 1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community. I52-4
- 2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies. I52-5
- 3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant." I52-6
- 4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable. I52-7
- 5. The Plan does not adequately evaluate the impacts of increased competition for water in our community. I52-8

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input. I52-9

Sincerely,
Edward Michael McMonigle

| | |
|-------------------|------------------------------------------------------|
| Letter I52 | Edward Michael McMonigle February 27, 2020 |
|-------------------|------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I52-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I52-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I52-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I52-4 Refer to response to comment I9-5 regarding analysis of social and economic issues in the draft EIR.
- I52-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I52-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I52-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I52-8 Refer to response to comment I9-9 regarding water supply.
- I52-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: Lizzy Martinez <emchambers@aol.com>
Sent: Tuesday, February 25, 2020 2:57 PM
To: General Plan Update
Subject: 2040 General Plan Draft EIR Comment McLoughlin Property - aka Olivas Lands

Letter
153

Follow Up Flag: Follow up
Flag Status: Flagged

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving jobmarket, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

I53-1

I53-2

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

I53-2
cont.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I53-3

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government’s housing policies.
3. The EIR does not adequately address the enormous “indirect impacts” that will occur as a result of implementing the General Plan, calling them “less than significant.”
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

I53-4

I53-5

I53-6

I53-7

I53-8

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

I53-9

Sincerely,
Elizabeth Chambers Martinez and Family
Great Granddaughter of Mark McLoughlin

| | |
|-----------------------|---------------------------------------------------------|
| Letter I53 | Elizabeth Chambers Martinez February 25, 2020 |
|-----------------------|---------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I53-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I53-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I53-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I53-4 Refer to response to comment I9-5 regarding analysis of social and economic issues in the draft EIR.
- I53-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I53-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I53-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I53-8 Refer to response to comment I9-9 regarding water supply.
- I53-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: Lizzy Martinez <emchambers@aol.com>
Sent: Thursday, February 27, 2020 4:20 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: General Plan Update <GeneralPlanUpdate@ventura.org>
Subject: 2040 General Plan Comments

Letter
I54

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today’s presentation by Ventura County Planning staff on the 2040 General Plan EIR.

I54-1

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time,

I54-2

” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

February 19, 2020

Ventura County Coalition of Labor, Agriculture and Business / [1672 Donlon Street, Ventura, CA 93003](http://1672DonlonStreet.com) / [805-633-2260](tel:805-633-2260) / info@colabvc.org

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

I54-2
cont.

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

I54-3

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the potential for conflicts would be minimal. This impact would be less than significant" (emphasis added).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

I54-3
cont.

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR. But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

I54-4

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

I54-5

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion.

But the County fails to analyze or propose mitigation measures to address this significant impact.

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

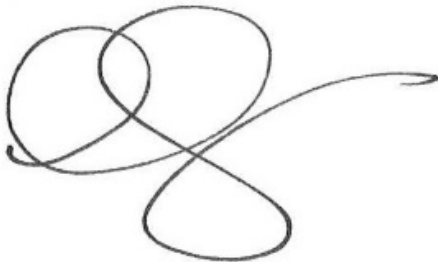
1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

I54-6

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director



In support of this letter-
Elizabeth Chambers Martinez

Sent from my iPhone

| | |
|-----------------------|---------------------------------------------------------|
| Letter I54 | Elizabeth Chambers Martinez February 27, 2020 |
|-----------------------|---------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter A13. The responses below provide cross references to the portions of Letter A13 where responses to the same comments have already been provided.

- I54-1 The comment describes that the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) has provided the following comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR “that CoLAB believes will negatively impact the viability of local agriculture.” This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I54-2 Refer to response to comment A13-7 and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I54-3 Refer to response to comment A13-8 regarding the Right-to-Farm Ordinance and land use conflicts.

Also, refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.
- I54-4 Refer to response to comment A13-10 regarding 2040 General Plan Policies AG-5.2 and AG-5.3.
- I54-5 Refer to response to comment A13-11 regarding water resources and loss of topsoil.
- I54-6 Refer to response to comment A13-12 regarding mitigation measure suggestions.

From: Lizzy Martinez <emchambers@aol.com>
Sent: Thursday, February 27, 2020 4:25 PM
To: Curtis, Susan
Cc: General Plan Update
Subject: 2040 General Plan Comments

Letter
155

Follow Up Flag: Follow up
Flag Status: Flagged

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 South Victoria Avenue, L#1740
 Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

I55-1

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

I55-2

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I55-3

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I55-4

I appreciate your consideration.

Laura McAvoy

I support this letter-
 Elizabeth Chambers Martinez

| | |
|-----------------------|---------------------------------------------------------|
| Letter I55 | Elizabeth Chambers Martinez February 27, 2020 |
|-----------------------|---------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I55-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.

- I55-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.

- I55-3 Refer to response to comment I8-4 and Master Response MR-2 regarding the 2040 General Plan’s consistency with the Save Open Space and Agricultural Resources initiative.

- I55-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Elizabeth S <esiboldi@gmail.com>
Sent: Wednesday, February 26, 2020 10:17 PM
To: General Plan Update; Curtis, Susan
Subject: General Plan Comments
Attachments: CC - VenCo GP Update.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

| |
|-----------------------|
| Letter I56 |
|-----------------------|

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February 26, 2020

Ventura County Resource Management Agency, Planning Division ATTN Susan Curtis,
Manager, General Plan Update Section
800 South Victoria Avenue, L #1740
Ventura, California 93009-1740

County of Ventura Draft Programmatic Environmental Impact Report for the draft 2040
General Plan Update

Dear Ms. Curtis,

The County of Ventura (County) is in a unique position to be updating the County's primary planning document through 2040 as the impacts of climate change are becoming more severe. The Draft Environmental Impact Report (DEIR) fails to recognize the true impacts of climate change already occurring. The County is already experiencing a 2°C increase in average temperature from historical records. We are soon to re-enter drought conditions following the driest February on record. We are still recovering from two of the state's largest wildfires in modern history. We must act now, and we must act boldly.

I56-1

The DEIR fails to provide enough emissions reduction to meet, or meaningfully contribute to, the California state mandated climate goals. The DEIR fails to include a Climate Action Plan with measurable targets and goals to ensure County stakeholders are informed about progress, achievements and accurate analysis of shortcomings. Language used in the [plan] such as "encourage" or "support" rather than "require" or "mandate" is insufficient and meaningless to meet acknowledged greenhouse gas reduction targets.

The DEIR is based on a wholly inadequate inventory of county emissions. The inventory was conducted from top down rather than bottom up and fails to include, or even consider, a significant portion of present emissions. Recent published studies indicate significant under-assessment of greenhouse gases, especially methane, from current fossil fuel extraction and production that must be included in the DEIR analysis.

I56-2

Because the County is one of the leading producers of fossil fuels in the state, and therefore in the nation, including fossil fuel facilities NASA documents as greenhouse gas “super emitters,” the County must act now, and act boldly. Approval of the proposed DEIR would be a failure of the County’s moral and fiduciary responsibility.

Therefore, to act responsibly, the County must:

- 1) Declare a climate emergency and direct all County government offices to incorporate climate change mitigation, to the extent feasible, in all activities,
- 2) Create a Climate Action Plan 2020-2040 with measurable targets and outcomes as a separate document from the General Plan update,
- 3) Set clear climate action goals and mandate enforceable climate policies based on the declaration of a climate emergency and Climate Action Plan 2020-2040, and
- 4) As part of the Climate Action Plan 2020-2040, set five-year interval targets beginning with 2025 to immediately begin the reduction of the County’s contribution to the climate emergency.

a. Initial five-year (2025) emergency climate goals:

- i. Begin the elimination of fossil fuel extraction and production with the County by immediately prohibiting operation of fossil fuel facilities within one-mile buffer zones of schools, public parks, mobile home parks, medical facilities, or any residential zones,
- ii. Wind down discretionary oil and gas production by 10% per year to zero production in the County by 2030 starting with fossil fuel facilities within above one-mile buffer zones,
- iii. Prohibit flaring and venting from any fossil fuel infrastructure before 2025,
- iv. Implement a policy to coordinate with the California Department of Transportation (Caltrans) and the Ventura County Transportation Commission (VCTC) to cease all freeway, highway and road infrastructure expansion projects by 2025,
- v. Implement a policy to coordinate with Caltrans and VCTC to use the existing 101 Freeway and Highway 126 corridors to build light rail for inter-city and inter-county commuting by 2040,
- vi. Implement a policy to expand existing rail infrastructure for multi-track capacity by 2040,
- vii. Implement a policy to coordinate with contracted refuse companies to divert all pre- and post-consumer food waste into the “green waste” stream for composting all County-derived food waste by 2025,
- viii. Implement an agricultural policy requiring a transition to 100% regenerative farming including carbon sequestration and soil nutrient management plans by 2030,
- ix. Transition all small gas engines used in agriculture to electric models or diesel engines running on biodiesel produced from as locally-sourced waste vegetable oil as possible by 2030,
- x. Implement a policy to transition all small, non-farm gas engines (i.e. blowers, mowers, trimmers, etc.) to electric models by 2025,
- xi. Implement a policy requiring all public transportation (buses, shuttles, and all County vehicles) to be fully electric vehicles by 2030,

I56-3

I56-4

- xii. Implement a County policy to prioritize walking and bicycling by connecting communities outside incorporated city limits with adequate sidewalks, bike lanes, and/or buffers from vehicle traffic,
- xiii. Implement policies to facilitate distributed renewable energy generation and storage,
- xiv. Study the potential to repurpose existing gas infrastructure as conduit for undergrounding electrical and communication lines,
- xv. Study the potential of public banking to finance County divestment from fossil fuels and investment in sustainable energy systems, and
- xvi. Implement a policy to work with existing fossil fuel industry workers to transition into clean energy jobs supporting clean energy infrastructure in the County.

I56-4
cont.

Whatever price tag you want to envision for these proposals, it pales in comparison to the pending costs of sea level rise, soil degradation and crop failure, increased asthma and other heat-exasperated medical conditions, and the shortsighted failures of free market economics and laissez faire County governance to deal with climate change. To delay action, to delay investment, will only cause greater harm and increased costs for us all.

I56-5

Respectfully,

Elizabeth Siboldi
553 N Ventura Ave Apt E Ventura, CA 93001

February 26, 2020

Ventura County Resource Management Agency, Planning Division
ATTN Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L #1740
Ventura, California 93009-1740

County of Ventura Draft Programmatic Environmental Impact Report for the draft 2040
General Plan Update

Dear Ms. Curtis,

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The DEIR fails to provide enough emissions reduction to meet, or meaningfully contribute to, the California state mandated climate goals. The DEIR fails to include a Climate Action Plan with measurable targets and goals to ensure County stakeholders are informed about progress, achievements and accurate analysis of shortcomings. Language used in the [plan] such as "encourage" or "support" rather than "require" or "mandate" is insufficient and meaningless to meet acknowledged greenhouse gas reduction targets.

The DEIR is based on a wholly inadequate inventory of county emissions. The inventory was conducted from top down rather than bottom up and fails to include, or even consider, a significant portion of present emissions. Recent published studies indicate significant under-assessment of greenhouse gases, especially methane, from current fossil fuel extraction and production that must be included in the DEIR analysis.

Because the County is one of the leading producers of fossil fuels in the state, and therefore in the nation, including fossil fuel facilities NASA documents as greenhouse gas "super emitters," the County must act now, and act boldly. Approval of the proposed DEIR would be a failure of the County's moral and fiduciary responsibility.

Therefore, to act responsibly, the County must:

- 1) Declare a climate emergency and direct all County government offices to incorporate climate change mitigation, to the extent feasible, in all activities,

- 2) Create a Climate Action Plan 2020-2040 with measurable targets and outcomes as a separate document from the General Plan update,
- 3) Set clear climate action goals and mandate enforceable climate policies based on the declaration of a climate emergency and Climate Action Plan 2020-2040, and
- 4) As part of the Climate Action Plan 2020-2040, set five-year interval targets beginning with 2025 to immediately begin the reduction of the County's contribution to the climate emergency.
 - a. Initial five-year (2025) emergency climate goals:
 - i. Begin the elimination of fossil fuel extraction and production with the County by immediately prohibiting operation of fossil fuel facilities within one-mile buffer zones of schools, public parks, mobile home parks, medical facilities, or any residential zones,
 - ii. Wind down discretionary oil and gas production by 10% per year to zero production in the County by 2030 starting with fossil fuel facilities within above one-mile buffer zones,
 - iii. Prohibit flaring and venting from any fossil fuel infrastructure before 2025,
 - iv. Implement a policy to coordinate with the California Department of Transportation (Caltrans) and the Ventura County Transportation Commission (VCTC) to cease all freeway, highway and road infrastructure expansion projects by 2025,
 - v. Implement a policy to coordinate with Caltrans and VCTC to use the existing 101 Freeway and Highway 126 corridors to build light rail for inter-city and inter-county commuting by 2040,
 - vi. Implement a policy to expand existing rail infrastructure for multi-track capacity by 2040,
 - vii. Implement a policy to coordinate with contracted refuse companies to divert all pre- and post-consumer food waste into the "green waste" stream for composting all County-derived food waste by 2025,
 - viii. Implement an agricultural policy requiring a transition to 100% regenerative farming including carbon sequestration and soil nutrient management plans by 2030,

- ix. Transition all small gas engines used in agriculture to electric models or diesel engines running on biodiesel produced from as locally-sourced waste vegetable oil as possible by 2030,
- x. Implement a policy to transition all small, non-farm gas engines (i.e. blowers, mowers, trimmers, etc.) to electric models by 2025,
- xi. Implement a policy requiring all public transportation (buses, shuttles, and all County vehicles) to be fully electric vehicles by 2030,
- xii. Implement a County policy to prioritize walking and bicycling by connecting communities outside incorporated city limits with adequate sidewalks, bike lanes, and/or buffers from vehicle traffic,
- xiii. Implement policies to facilitate distributed renewable energy generation and storage,
- xiv. Study the potential to repurpose existing gas infrastructure as conduit for undergrounding electrical and communication lines,
- xv. Study the potential of public banking to finance County divestment from fossil fuels and investment in sustainable energy systems, and
- xvi. Implement a policy to work with existing fossil fuel industry workers to transition into clean energy jobs supporting clean energy infrastructure in the County.

Whatever price tag you want to envision for these proposals, it pales in comparison to the pending costs of sea level rise, soil degradation and crop failure, increased asthma and other heat-exasperated medical conditions, and the shortsighted failures of free market economics and *laisse faire* County governance to deal with climate change. To delay action, to delay investment, will only cause greater harm and increased costs for us all.

Respectfully,

Elizabeth Siboldi
553 N Ventura Ave Apt E
Ventura, CA 93001

| | |
|-----------------------|-----------------------------------------------|
| Letter I56 | Elizabeth Siboldi February 26, 2020 |
|-----------------------|-----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I23. The responses below provide cross references to the portions of Letter I23 where responses to the same comments have already been provided.

- I56-1 Refer to response to comment I23-1 regarding the effects of climate change on Ventura County.
- I56-2 Refer to response to comment I23-2 regarding the GHG inventory conducted for the County.
- I56-3 Refer to response to comment I23-3 regarding the climate action planning incorporated in the 2040 General Plan.
- I56-4 Refer to response to comment I23-4 regarding suggestions for the County to set 5-year interval reduction goals and strategies to reduce emissions.
- I56-5 The information summarizing the economic costs of the proposed 2040 General Plan are noted. This comment is a concluding statement and does not raise a significant environmental issue for which a response is required.

From: Emily Hirsch <emilyreenehirsch@gmail.com>
Sent: Sunday, February 23, 2020 8:00 AM
To: General Plan Update
Subject: General Plan 2040

**Letter
I57**

To Whom It May Concern,

The effects of climate change are overwhelmingly evident in our county. The General Plan update does not provide high enough emissions reduction to meet the state-mandated goals. A stronger plan, with the help of technical and scientific input, needs to be included for the 2040 General Plan, including a strong defense of the five pound air emissions limit for the Ojai Valley.

I57-1

Thank you,
Emily
Ojai, CA

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| Letter I57 | Emily Hirsch February 23, 2020 |
|-----------------------|------------------------------------------|

I57-1 The comment refers to the level of greenhouse gas emissions reductions provided by the 2040 General Plan relative to State goals. Refer to Master Response MR-1 for discussion of these topics. See also response to comment I50-3 regarding the Ventura County Air Pollution Control District’s recommended threshold of significance for reactive organic gas and nitrogen oxide emissions in Ojai Valley.

The comment addresses the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

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| <p>Letter 158</p> |
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While I appreciate the inclusion of environmental justice as a cross-cutting issue that is addressed throughout the various sections of the Plan, I see opportunities in nearly every written goal/objective to make social justice, environmental justice, and inclusivity a stronger focus. I've only examined Section 10 due to personal time constraints, but would likely have many comments on other sections if there are public comment periods in the future.

Within Section 10 on Economic Vitality, I suggest the following edits:

- EV-1.2 should read "The County shall prioritize investment in infrastructure, services, safety net programs and other assets that are critical to future economic vitality, including public safety, healthcare, library services, water supply and quality, transportation, energy, and environmental resources. This investment shall improve equity in investment opportunities to designated disadvantaged communities, including designated Opportunity Zones under the federal Tax Cuts and Jobs Act of 2017. The focus of these efforts shall be to improve social equity and opportunity for all. (FB, SO) [Source: VCEVSP Policy A.3, E.1, modified]"
- EV-1.3 should read: "The County shall continue to work with cities and community organizations to implement, assess, and improve best practices, pursue funding to improve housing affordability, and implement programs that a) reduce the cost of housing in order to retain and attract employers, employees, and young graduates and professionals, b) improve the number of affordable housing units accessible to the most vulnerable/disadvantaged communities, and c) meaningfully address the underlying causes of unaffordable housing in Ventura County. (MPSP, IGC) [Source: VCEVSP Policy F.1, modified]"
- EV-1.4 should read: "The County shall promote socioeconomic inclusivity and business-friendliness in the regulatory and permitting environment throughout Ventura County through collaboration (especially with existing local organizations that serve vulnerable/disadvantaged groups), exchange of ideas and best practices, improvement in clarity and efficiency in the permitting process, taking advantage of opportunities for streamlining in the development process, promoting cooperative and nonprofit business models and supporting their growth in Ventura County, and improving consistency in policy and practice among cities and the County. (RDR, IGC) [Source: VCEVSP Policy F.3, modified]"
- EV-1.6 should read: "The County shall work with local chambers of commerce, countywide economic development organizations, and businesses to support the appropriate and socially inclusive expansion of the local economy that improves the standard of living for the most vulnerable/disadvantaged communities in Ventura County first and foremost and also leads to the creation of environmentally sustainable and cutting-edge jobs for long-term economic prosperity, particularly in Existing Communities and unincorporated Urban Areas where zoning allows. (MPSP, JP) [Source: New Policy]"
- EV-1.7 should read: "The County shall strive to attract industries based on existing and projected workforce demographics, educational attainment, skills, and commute patterns, and which provide opportunities to residents living in designated disadvantaged communities. The County shall equip designated disadvantaged communities with the educational attainment, skills, and commute patterns that allow them to be highly competitive in the industries that develop in Ventura County in the future. (MPSP, JP) [Source: New Policy]"
- EV-1.8 should read: "The County shall coordinate and work with cities in the county to enhance the efficiency of development of remaining vacant commercial and industrial sites and encourage infill and revitalization of underutilized sites so that nearby neighborhoods become more walkable, green, cohesive, and affordable. (MPSP, IGC) [Source: VCEVSP A5]"
- EV-1.9 should read: "The County shall facilitate the development of a range of commercial uses in urban areas and Existing Communities, where zoning allows, that not only fulfill the daily needs of residents and visitors but also make the communities more walkable, cohesive, affordable, and vibrant. (MPSP, JP) [Source: Existing GPP Goal 3.4.1.1, modified]"
- EV-1.10 should read: "The County shall strive to attract and retain high-quality, full-service, affordable, and culturally appropriate grocery stores and other healthy food purveyors to fill local

158-1

needs in Existing Communities and adjacent urban areas, particularly in underserved areas. (MPSP, JP) [Source: *New Policy*]

- EV-3.2 should read: “The County should promote and expand existing small business and women-owned business development programs by identifying partnerships between industry and educational organizations, and identifying potential mentoring, job training, networking, and professional development opportunities between these organizations and by supporting and promoting efforts of the Small Business Administration to provide technical assistance to small business owners and employees through classes and assistance in the areas of business management, marketing, and legal assistance. The County should allow entrepreneurs to use government property or facilities to test new products and services that are beneficial to the public good for micro enterprises of five employees or fewer to encourage economic and social opportunities in low-income areas. (IGC, JP) [Source: *New Policy*]
- EV-3.5 should read: “The County shall support local efforts to attract firms in key industries from outside the county that have a history of positive social, environmental, and economic charity. The County shall facilitate the entrepreneurial development of new firms and cooperative business models within the county as well as support the necessary training to develop entrepreneurship and innovation in the local workforce. (IGC, JP) [Source: *VCEVSP Strategy C, modified*]
- EV-4.2 should read: “The County shall support the development of industries and businesses that promote and enhance environmental sustainability, greenhouse gas reductions, decarbonization, climate change adaptation, resiliency, and renewable energy generation, storage, and transmission, including solar power, wind power, wave energy and other appropriate renewable sources. The County shall promote the efforts of existing businesses that meet green business criteria and encourage them to become more diverse and inclusive in their daily operations, organization, and local impact; provide job training in green building techniques and regenerative farming and trainings on starting social enterprises built on cooperative business models; and strive to build green technologies into and decarbonize existing government buildings and facilities. (MPSP, JP) [Source: *New Policy*]
- EV-4.3 should read: “The County shall encourage the development and expansion of businesses and business models (eg. cooperatives) that advance social equity, inclusivity and fairness, environmental quality, and economic sustainability, as well as capitalize on key industry strengths. Economic sustainability includes planning and preparation for disaster response and long-term resiliency of businesses and economic assets in the county. (JP) [Source: *New Policy*]

I58-1
cont.

Within the Climate Action Plan, I see opportunities to make Ventura County a stronger leader in both reducing our contribution to the climate crisis as well as addressing social/environmental injustice. One urgent need in the Climate Action Plan is to establish a framework for making the implementation (and success) of the Plan observable and measurable so that the public can hold polluters and public officials accountable if they fail to meet the goals established in the Plan – that framework should include some details on the specific indicators chosen to measure implementation/success of the Plan. I would suggest that the planners and decision-makers working on this update establish close contact with CFROG (Climate First: Replacing Oil and Gas) to set up an appropriate framework. The framework should also have a robust public outreach component where local stakeholders are invited into the assessment and monitoring of the Climate Action Plan on an iterative basis. The public outreach component of the monitoring protocol should center around the needs of Ventura County’s vulnerable, disadvantaged, and/or historically marginalized communities and meaningfully include their voices.

I58-2

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| Letter I58 | Erik Fruth February 27, 2020 |
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- I58-1 The comment provides suggested edits to policies proposed in the 2040 General Plan related to social justice, environmental justice, and inclusivity and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I58-2 The comment provides suggestions for the 2040 General Plan and is not related to the adequacy of the draft EIR. Specifically, the comment requests the inclusion of programs that provide a framework for implementation of the greenhouse gas-related policies and programs of the 2040 General Plan that is observable, measurable, and provides for public participation. Note that the programs in the 2040 General Plan would largely achieve these goals. See, for example, Programs Z, AA, BB, and CC of the Conservation and Open Space Element. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: Fiona Bremner <info@email.actionnetwork.org>
Sent: Friday, February 21, 2020 4:58 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

Letter
I59

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

I59-1

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I59-2

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I59-3

I want an EIR that covers major climate impacts via a systematic plan.

In addition, I feel the plan should restore the decisions of the Board of Supervisors to require that all new wells collect gases rather than flare or vent and also that gas-fueled lawn and garden equipment should be banned.

I59-4

Thank you—

Fiona Bremner

Fiona Bremner
fbremner@rocketmail.com
418 S. Dos Caminos
Ventura, California 93003

| | |
|-----------------------|-------------------------------------------|
| Letter I59 | Fiona Bremner February 21, 2020 |
|-----------------------|-------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I59-1 Refer to response to comment I3-1 regarding the commenter's concerns about climate change and the draft EIR analysis.
- I59-2 Refer to response to comment I3-2 regarding the use of the most current climate change science in the draft EIR analysis.
- I59-3 Refer to response to comment I3-3 regarding suggested mitigation measures.
- I59-4 Refer to Master Response MR-4, Section MR-4.F Flaring, regarding the findings and conclusions related to flaring in oil and gas operations. Refer to response to comment O1-29 for discussion of the recommendation to ban gas-fueled lawn and garden equipment.

From: Fred J Ferro <fferro@naicapital.com>
Sent: Tuesday, February 25, 2020 12:44 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR comment

Letter
I60

ATTN: Planning Division

Thank you for your time in preparing this document and for receiving my comments. My name is Fred J. Ferro and I have serious concerns about areas related to our local oil and gas industry. The DEIR contains false and ill-advised policies affecting the local oil and gas industry without proper evidence and analysis. I60-1

The policy COS-7.4 mandates the electrically powered equipment be used for oil and gas exploration and production. The DEIR makes this mandate of the oil and gas industry but does not apply this mandate to other industries. First of all, that is blatant in its disregard of an industry that provides thousands of high-paying jobs and provides tax revenues that support vital community services and local education. This mandate that is unfairly targeted to oil and gas should be further analyzed for economic impacts. I60-2

Furthermore, preventing a permitted land use such as extraction of energy resources would be a public taking. The DEIR needs to correct this failure to recognize and analyze the public taking as a result of these policies. I60-2

These policies must be corrected and further studied is this document is to be considered complete. Upon further analyzing these issues, the document will need to be recirculated instead of rushed through. Similarly, more recent available County Ag Commissioners data could and should have been used for discussion of the impacts of proposed changes affecting the local agricultural industry. I60-3
I60-4

Thank you for your time,

Fred J.Ferro

Fred J Ferro | Vice President
300 Esplanade Dr., Suite #1660, Oxnard, CA 93036
fferro@naicapital.com | CalBRE Lic # 00873828

Office 805-278-1400 x5469
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| Letter I60 | Fred J Ferro February 25, 2020 |
|-----------------------|------------------------------------------|

- I60-1 The description and concerns related to the oil and gas industry of the commenting individual are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required. See responses to comments I60-2 through I60-4, below, regarding policies addressed in the draft EIR that pertain to the oil and gas industry.
- I60-2 The comment addresses implementation of Policy COS-7.4 in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- Further, the comment states that the economic impacts of implementing Policy COS-7.4 should be analyzed. However, EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR. Refer to Master Response MR-4, Section MR-4.B, "Antiquated Permits and Takings," regarding takings. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopted a final 2040 General Plan.
- I60-3 Regarding revisions to Policy COS-7.4, refer to response to comment I60-2, above. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.
- I60-4 The comment states that recent available County Agricultural Commissioner data should have been used in discussing impacts that would affect the local agricultural industry. It is unclear which data from the County Agricultural Commissioner the commenter refers to. The data used for the impact analysis accurately represent existing physical conditions at the time of publication of the notice of preparation in January 2019 (refer to Section 4.2, "Agriculture and Forestry Resources," in the draft EIR). Nonetheless, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

Gabriel R. Duarte
4014 Brindisi Place
Moorpark, CA 93021

Letter
I61

February 27, 2020

Ventura County Board of Supervisors
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

I'm writing to you as a concerned resident of the County regarding the viability of the oil and gas industry in Ventura County.

I61-1

The 2040 General Plan Draft EIR fails to give proper analysis to oil and gas mineral resources.

Neither the EIR nor the Background report provide a complete and thorough description of the existing, current regulatory setting that oversees the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

I61-2

The EIR fails to actually analyze for direct and indirect impacts to mineral resource zones that will occur as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses OVER known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. These incompatible land uses will significantly impact future mineral resource production and must be evaluated and mitigated for in the EIR.

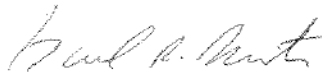
I61-3

The EIR never addresses indirect impacts to mineral resource development that will occur under the 2040 General Plan. As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to produce mineral resources in the County.

The Draft EIR is lacks critical analysis and must be corrected and recirculated to ensure a fair process for Ventura County residents.

I61-4

Thank you,



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|-----------------------|-----------------------------------------------|
| Letter I61 | Gabriel R. Duarte February 27, 2020 |
|-----------------------|-----------------------------------------------|

- I61-1 The commenting individual's concerns related to the oil and gas industry and the draft EIR's analysis of oil and gas mineral resources are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I61-2 Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR. The commenter indicates that the draft EIR and Background Report do not provide a complete description of the existing and current regulatory setting for production of mineral resources. The commenter does not specify the additional information regarding the regulatory setting applicable to analysis of impacts to mineral and petroleum resources that needs to be included in the EIR.
- The Background Report Section 8.4, "Mineral Resources," 8.5, "Energy Resources," and Section 10.2 "Legal and Regulatory Framework for Water Management (Class II Underground Injection Control Program)," provide relevant regulatory information necessary for understanding and evaluating the impacts of the 2040 General Plan on petroleum resources. Additionally, the draft EIR Mineral and Petroleum Resources Section 4.12.1, Background Report Setting Updates, includes additional information laws and regulations that pertain to petroleum development. This includes federal laws and regulations related to gas pipelines, state laws and regulations related to the California Pipeline Safety Act of 1981, Ventura County Air Pollution Control District (VCAPCD) Rule No. 71.1 – Crude Oil Production and Separation and Rule No. 54 – Sulfur Compounds, VCAPCD Primary (Non-Emergency) Flares, VCAPCD Emergency Flares, and VCAPCD Permitted Flare Variances, and Non-Coastal and Coastal Zoning Ordinances. In the response to this comment, and based on the April 9, 2020 comment letter from the California Geologic Energy Management Division (CalGEM) describing its current regulatory program, the regulatory framework section has been augmented. The enhance discussion of regulatory framework would not alter the findings or analysis in the EIR. The augments to the regulatory setting for Section 4.12 are provided in final EIR Chapter 3, "Revisions to the Draft EIR."
- I61-3 The commenter asserts that the draft EIR fails to analyze impacts to mineral resource zones that would occur as a result of implementation of the 2040 General Plan. The draft EIR Section 4.12.2 Environmental Impacts and Mitigation Measures (page 4.12-5) indicates that "To determine the potential for the 2040 General Plan to conflict with the extraction of mineral resources, the proposed land use diagram was compared to maps of aggregate resources maintained by the State (mineral resource zones mapped by the California Division of Mines and Geology [now known as the California Geological Survey]) and County (as Mineral Resource Protection [MRP] overlay zone) described in the Background Report. The potential for physical changes within identified mineral resource

zones (MRZs) was determined using geographic information system software. Specifically, the analysis focused on MRZ-2 lands, which are identified in the County’s NCZO with an MRP Overlay. Consistent with ISAG [Initial Study Assessment Guidelines] Section 3a, any land use proposed on or immediately adjacent to land zoned in the MRP Overlay designation or adjacent to a principal access road to a property with the boundaries of an existing conditional use permit for mineral (e.g., aggregate) resources extraction is considered to have the potential to hamper or preclude access to mineral resources.”

The draft concludes that with the implementation of policies proposed in the 2040 General Plan, the potential for development on or adjacent to mineral resources that are zoned, mapped, or permitted for extraction, which could hamper or preclude extraction of the resources, would be less than significant (4.12-10) for Impact 4.12-1: Result in Development on or Adjacent to Existing Mineral Resources Extraction Sites or Areas Where Mineral Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Extraction of the Resources (4.12-9)). Additionally, the draft EIR concludes that future development would not be anticipated to result in the loss of a known mineral resource that would be of value to the region and the residents of the State and this impact would be less than significant (4.12-10) for Impact 4.12-2: Result in the Loss of Availability of a Known Mineral Resource That Would Be of Value to the Region and the Residents of the State (4.12-10).

Refer to response to comment O5-90 regarding the interplay between the land use designations in the 2040 General Plan and mineral resource zones and Master Response MR-2 for a detailed discussion of how buildout was analyzed in the draft EIR. Response to comment O9-8 provides a discussion of the potential for indirect impacts due to incompatible land uses.

I61-4

The comment states that the draft EIR does not include the analysis requested in the above comments. For the reasons described in response to comments I61-1 and I61-2, above, the draft EIR analysis is adequate. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: garry star <gstar42@hotmail.com>
Sent: Monday, February 24, 2020 9:55 AM
To: General Plan Update
Subject: Climate Action Plan (CAP) is seriously incomplete

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| Letter I62 |
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| <p>Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet.</p> <p>Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.</p> <p>Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.</p> <p>Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.</p> <p>The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.</p> | <table border="0"> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; height: 15px; width: 5px;"></td> <td style="padding-left: 5px;">I62-1</td> </tr> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; height: 15px; width: 5px;"></td> <td style="padding-left: 5px;">I62-2</td> </tr> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; height: 15px; width: 5px;"></td> <td style="padding-left: 5px;">I62-3</td> </tr> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; height: 15px; width: 5px;"></td> <td style="padding-left: 5px;">I62-4</td> </tr> </table> | | I62-1 | | I62-2 | | I62-3 | | I62-4 |
| | I62-1 | | | | | | | | |
| | I62-2 | | | | | | | | |
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| | I62-4 | | | | | | | | |

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| Letter I62 | Garry Star February 24, 2020 |
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- I62-1 Refer to Master Response MR-4, Section MR-4.H Buffers (Setback) regarding the findings and conclusions related to buffers (setbacks) in oil and gas operations.
- I62-2 Refer to Master Response MR-4, Section MR-4.G Pipeline Requirements, regarding the findings and conclusions related to pipelines in oil and gas operations.
- I62-3 Refer to Master Response MR-4, Section MR-4.F Flaring regarding the findings and conclusions related to flaring in oil and gas operations.
- I62-4 The comment suggests revising the policies proposed the 2040 General Plan to achieve measurable, enforceable reductions in GHG emissions. Refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions.

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

Letter
I63

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I63-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I63-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I63-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually

I63-4

impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I63-4
cont.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I63-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I63-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I63-7

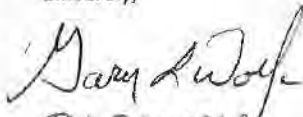
In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I63-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I63-9

Sincerely,


P.O. Box 1268
Ventura, CA 93002

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| Letter I63 | Gary L Wolfe February 25, 2020 |
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This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I63-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I63-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I63-3 Refer to response to comment I4-3 regarding water availability and cost.
- I63-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I63-5 Refer to response to comment I4-5 regarding the commenter’s request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I63-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I63-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I63-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I63-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:09 AM
To: Simmons, Carrie
Subject: FW: Ventura County general plan and climate change

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| Letter I64 |
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Susan Curtis | Manager
 General Plan Update Section
 susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division P. (805) 654-2497 | F. (805) 654-2509
 800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740 Visit the Planning Division website at vcrma.org/planning
 Ventura County General Plan Update. Join the conversation at VC2040.org For online permits and property information, visit VC Citizen Access

Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

-----Original Message-----

From: Geoffrey Dann <gdann@mac.com>
Sent: Tuesday, February 25, 2020 9:11 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County general plan and climate change

Ms Curtis -

Others have written more thoroughly on this subject than I can, so I am just adding my voice. Ventura County should be a national leader to mitigate the effects of climate change, to stop or reverse climate change, to move us to long-term sustainable ways of life, to reverse the last century of "better living through chemistry". Ventura County has abundant natural resources and human resources to make these things happen.

thanks

Geoffrey Dann
 184 N Wake Forest Ave, Ventura 93003

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| I64-1 |
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| Letter I64 | Geoffrey Dann February 25, 2020 |
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I64-1 The comment addresses the 2040 General Plan and is not related to the adequacy of the draft EIR, therefore no further response is required. The comment also expresses concerns about climate change, which is addressed in the draft EIR in Section 4.8, "Greenhouse Gas Emissions." This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

George A. Graham
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
I65

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I65-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I65-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I65-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

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165-4
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The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I
165-5
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After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

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165-6
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The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I
165-7
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In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I
165-8
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Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

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165-9
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Sincerely,


George A. Graham

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| Letter I65 | George A Graham February 24, 2020 |
|-----------------------|---------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

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- I65-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

Geraldine Gramckow
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
166

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I66-1

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Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

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166-9
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Sincerely,


Geraldine Gramckow

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|-----------------------|------------------------------------------------|
| Letter I66 | Geraldine Gramckow February 24, 2020 |
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This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

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- I66-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

Gloria Valladolid
1129 Maricopa Hwy B-251
Ojai Ca 93023

Letter
I67

REC'D FEB 26 2020

February 22, 2020

Ventura County Resource Management
Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

**Re: Preliminary Draft General Plan Update
(Planning Division Case Number PL17-0141)**

Here are my comments and recommendations regarding the
Preliminary Draft General Plan Update ("Preliminary Draft") .

I agree with CFROG's comments. Therefore, include me as a strong
citizen supporter of their comment letter. Ditto to their
recommendations to the EIR.

Sincerely



Gloria Valladolid

I67-1

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| Letter I67 | Gloria Valladolid February 22, 2020 |
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I67-1 The commenter refers to a letter submitted by Climate First: Replacing Oil & Gas. See responses to Letter O20.

From: Gordon Clint <ghclint@yahoo.com>
Sent: Sunday, February 23, 2020 3:50 PM
To: ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>
Cc: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: VC2040 General Plan Comments

**Letter
I68**

To: Board of Supervisors
cc: Susan Curtis
From: Gordon Clint
4102 Greenwood Street
Newbury Park, CA 91320

I am signing on to this letter because I care about the deteriorating condition of my County and planet. We must approve a plan that will provide a just and sustainable future. Please strengthen the climate aspects of the 2040 General Plan consistent with the following concerns:

With worsening climate change impacts, we reiterate and amplify the concerns the people expressed in January of last year about “climate change and GHGs, and the effects of continued oil and gas extraction including secondary effects related to climate change, air quality, water quality, water supply, traffic, noise, odors, aesthetics, and hazards.”

Our county is warming faster than any other in the nation, our ocean is becoming more hostile to marine life, our last drought was the most intense and lasted longest, and our history of costly floods will be dwarfed when future atmospheric rivers pour over our valleys. Our house is on fire. We need a thorough plan and environmental impacts analysis based on the latest science.

Ventura County’s plan matters. Our larger cities are making climate action plans and look for your example of leadership. The environmental impact from what we do to mitigate climate impacts at the global scale is profoundly influential in trying to stop runaway climate change. This is explained in a new report Insights from the California Energy Policy Simulator about the role of the State of California in the world. Ventura County as a local government hit hardest by climate impacts must step up and meet serious goals. “Insights about California’s climate policies are at the forefront of global efforts to battle climate change. The state’s leadership and success so far have helped maintain momentum despite political headwinds. If California faltered, global efforts to reduce GHG emissions would be dealt a major setback. Meanwhile, the severe risks from runaway global warming are becoming more tangible as the state suffers from wildfires supercharged by climate change.”

I68-1

A. Four Overall Comments:

We are grateful for the expertise at the law firm of Shute, Mihaly and Wineberger retained by CFROG regarding CEQA. We have appreciated their past comments. We join them in continuing to request the following:

1. Count ALL GHGs that result from activity in our county: Count all burning of oil and gas originating in our county and count all fugitive methane from wells in our county and from methane entering our county that was not counted at the jurisdiction of origin. Do the math on the GHG footprint for heavy exports. We want to mitigate our fair share of all climate impacts from activities within Ventura County. We have to know what they are. Worrying about double counting is not acceptable. Just worry that you haven’t counted every cause of climate impacts that we are morally and legally responsible to mitigate with a comprehensive inventory and a systematic plan.

I68-2

2. Use the latest science to calculate GWP of methane: The global warming potential of GWP is nearly 40 percent greater than what you are using. The International Panel on Climate Change states that over a 20 year period, methane has a GWP of 84 compared to carbon dioxide (up from their previous estimate of 72). The US EPA estimates it at 87 and recent scientific experts put the estimate at 96. We must know the true environmental impact of methane emissions. A complete and scientifically valid GHG inventory is required for a CEQA-compliant Climate Action Plan.

3. Use the emissions reduction goal from Governor Brown’s Executive Order B-18-55 “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing greenhouse gas emissions.” It is an inadequate compromise, but not as much as the SB 32 goal of 80% below 1990 levels by 2050. City of LA plans to stay within a net zero carbon budget between now and 2045. The proposed GHG reductions in the VC2040 Draft of 41 percent below 2015 levels by 2030, 61 percent by 2040, and 80 percent by 2050 are not ambitious enough for us to do our part to mitigate the climate chaos happening faster than scientists have predicted.

I68-3

4. Policies and programs must meet the goal: It does not take an in-depth analysis to see that this plan will not achieve the 2030 goal of 40% reduction in GHGs below 1990 levels. A new report Insights from the California Energy Policy Simulator shows that the State of California will fall short of that goal by at least 15 and as much as 45 MMT CO₂e. We have and continue to advocate for a goal aligned with Governor Brown’s Executive Order to achieve carbon neutrality as soon as possible and no later than 2045.

B. Some Comments about Impacts and Mitigation

The environmental impacts that concern us are those resulting from governments not making and carrying out plans to mitigate climate change. Your draft analysis does not include most of them. Table B in the Executive Summary is not even half finished. Some of the more serious impacts are missing from the draft analysis. Here are a few of our concerns:

I68-4

1. Aesthetics, Scenic Resources and Light Pollution and Agriculture and Forest Resources: Mitigation programs are needed to protect our resources from degradation from significant climate impacts. The loss of soil in particular is associated with the downfall of civilizations.

I68-5

2. Air Quality: The emissions impacts from exceeding criteria pollutant thresholds and also greenhouse gases seem significant and can be mitigated.

I68-6

3. Biological Resources: The new implementation program is a good start to “update the Initial Study Assessment Guidelines, Biological Resources Assessment report criteria and evaluate discretionary development that could potentially impact sensitive biological resources”. Two kinds of impacts are missing. 1) Climate Change. A major mitigation is the restoration of wetlands which should be at a 2:1 or greater ratio. Stormwater management is another mitigation that reverses the loss of vegetation from drought and floods and supports the restoration of all of the indigenous biology that makes an ecosystem function to maintain the small water cycles. 2) Toxic Pesticide and Herbicide Use and Drift. This must be part of the agenda of a Program for Protection of Sensitive Biological Resources to promulgate the mitigations provided by Integrated Pest Management. Pest management policy must align with the recommendations of the California Department of Pesticide Regulation Roadmap for Integrated Pest Management some of which have climate mitigation co-benefits.

I68-7

4. Energy: We want a workshop to learn how it is deemed less than significant to allow wasteful, inefficient, or unnecessary consumption of energy resources.

I68-9

5. Greenhouse Gas Emissions: The climate change impacts are so dire that the mitigations need to be benchmarked to be achieved before it is too late to reverse runaway climate chaos. At minimum we demand a systematic plan for decarbonization of county facilities and electrification of the transportation system.

I68-10

6. Hazards, Hazardous Materials, and Wildfire: The impacts of toxic explosions, leaks, and spills and the drift of regulated materials and the ignorance of the public about toxic impacts must be addressed where feasible through mitigations that regulate the use and transport of hazardous materials. We have recommended feasible mitigations for people being exposed to the risk of wildfires that have not been accepted by decision-makers.

I68-11

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| <p>7. Hydrology and Water Quality: Impacts from climate change and poor land management have led to grave threats to water supply and water quality. These are highly significant--ground water overdraft, overuse and degradation of water quality, erosion, flooding, and siltation. (Impact 4.10-12) The failure to restore small water cycles to keep stormwater in the uplands and maintain forest health is one of the most serious impacts being mitigated in many places through a paradigm shift about stormwater management. Mitigation is essential--water is life. It requires an integrated water management plan that involves every sector working on every mitigation of which we are aware.</p> | <p>I 68-12</p> |
| <p>8. Land Use and Planning We want an analysis of incompatible land uses and new development with negative health implications. Closing wells near sensitive sites is a mitigation. Environmental Justice is not examined in the draft EIR.</p> | <p>I 68-13</p> |
| <p>9. Mineral and Petroleum Resources: We want an analysis of the impact of the scenario in which wells have been put on hold and the operator cannot close the wells for lack of funds. We have no choice. The wells must be closed properly. Fields must be restored to functioning ecosystems to help mitigate climate change impacts. We need insurance as well as bigger bonds.</p> | <p>I 68-14</p> |
| <p>10. Traffic and Transportation: Tailpipe emissions is an extremely significant environmental impact. The mitigation aimed for in the CTM-C: Vehicle Miles Traveled (VMT) Reduction Program needs assurances of effectiveness via a clear description of what "conditions warrant providing additional mitigations and programs"? This is far too vague to be a mitigation for this significant impact. We have no alternative but to reliably cut GHGs in the transportation sector.</p> | <p>I 68-15</p> |
| <p>11. Utilities: Failure to develop wholesale and commercial scale renewable energy generation and microgrids is a significant environmental impact because it has forced us to have to get our electricity from fossil fuels via transmission lines that spark wildfires. Community microgrids are a feasible mitigation.</p> | <p>I 68-16</p> |
| <p>12. Waste Management: Failure to properly manage waste has a highly significant environmental impact, especially when it produces methane super-emitter landfills that is driving climate change, but also the failure to reuse and recycle consumer goods and the materials and equipment discarded by commercial enterprises. We need a more comprehensive approach for mitigation of these impacts.</p> | <p>I 68-17</p> |
| <p>C. The following policy recommendations for the Draft Plan could help the Plan achieve the GHG reduction goals to mitigate climate change impacts and help the EIR be more relevant to the climate crisis.</p> | <p>I 68-18</p> |
| <p>Land Use and Community Character: We endorse the comments submitted by Bruce Smith to more firmly assure preservation of agricultural land and open space. We point out the lack of analysis of Environmental Justice policy issues.</p> | <p>I 68-19</p> |
| <p>Circulation, Transportation, and Mobility:</p> | |
| <p>1. No overriding considerations should allow a project to NOT reduce VMT unless all of the vehicles have zero emissions that will use the proposed project.</p> | <p>I 68-20</p> |
| <p>2. CTM 3-9 to widen SR 118 has a significant environmental impact.</p> | <p>I 68-21</p> |
| <p>3. Benchmarks to reduce VMT need to be more clear and the plan needs a review with public input every two years until 2028 and then no longer than every five years.</p> | <p>I 68-22</p> |
| <p>4. Parking programs should be included in ways that reduce single-occupancy car trips.</p> | <p>I 68-23</p> |

Public Facilities, Services, and Infrastructure:

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| <ol style="list-style-type: none"> 1. Enroll residents in a program to reduce CO2 emissions in their neighborhoods. Ex: Cool Block or Transition Streets. 2. PFS 2.1 must be revised to say include rather than encourage 'Sustainable Plans and Operations' in order to be considered a mitigation of climate change impacts from greenhouse gas emissions. 3. Policy PFS 7.1 should be revised to delete the need for access to gas. The environmental impact from use of natural gas requires carbonizing buildings beginning with no gas connections to new residences . It is therefore contradictory to ensure access to gas. 4. Local renewable energy generation must be part of the mitigation plan for reducing transmission facility fire hazard risk. This is not the same as "Smart Grid Technology". You need experts who know the cutting edge of this field to help write coherent policy on this topic. 5. Zero Waste The County shall achieve zero waste (via a suite of policies to reduce, reuse, and recycle) with no organic waste going to landfills by 2023 6. Zero Waste Policy for Meetings and Events Design and implement a zero waste policy for meetings and events sponsored or permitted by the County to minimize waste and rescue surplus edible food 7. Compostable Take-Out Foodware Require that take-out foodware be made with material compostable in solid waste processing facilities within 60 days 8. Reduce Solid Waste by Phasing Out Single-Use Plastic Evaluate how to best reduce solid waste generation per capita by at least 15% by 2030 including phasing out single-use plastics including but not limited to plastic straws, plastic utensils, plastic take-out containers, and expanded polystyrene 9. Ban Expanded Polystyrene | <p>I68-24</p> <p>I68-25</p> <p>I68-26</p> |
| <p>Conservation and Open Space:</p> <ol style="list-style-type: none"> 1. Reduce oil and gas production by 40% by 2025 via higher monitoring standards and 2500 ft buffer zones near sensitive sites; reduce production to zero by no later than 2040. 2. Phase-Out of Oil and Gas Production The County shall prohibit new drilling and shall regulate existing wells to assure steady closing of wells beginning near residential and commercial areas. 3. Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes. 4. Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking. 5. Detect and curb methane emissions from "super-emitter" sites as identified by NASA. 6. Tax oil and gas production, and related uncaptured methane to raise the needed revenues to fund urgent climate programs to replace high-emission vehicles with a priority on trucking and freight companies, fishing businesses, general contractors and K-12 schools. 7. Require a fully accountable performance bond for all new wells to cover cost of closure Cite LAT article (maybe put on website and link to it). 8. Establish an insurance fund that oil and gas producers contribute to that will cover accidents and closing wells if the producer goes bankrupt. | <p>I68-27</p> |

9. Ban gas-fueled lawn and garden equipment. (Ex: City of Ojai)
10. Accelerate capture of legacy HFCs Enlist the public and private to find and destroy existing stocks of HFC's (refrigerant gases with extremely high Global Warming Potential).
11. Develop and adopt building codes based on best practices for use of low embodied carbon concrete and set targets for use of low GHG concrete alternatives. Ex: Bay Area Air Quality Management District and King Co, WA.
12. Encourage climate-safe and climate-resilient development through zoning reform and removal of limits on height, density, and minimum parking requirements to enable and promote walkability and a mix of uses for homes and businesses, parks and transit.
13. Create a master local clean energy siting and funding plan for wholesale distributed solar energy plus storage in commercial scale projects producing energy needs by 2030.
14. Provide energy efficiency benchmarking and rebates for low-income housing and renters as well as low-interest loans for small businesses to reduce energy use; assist owners of existing buildings to switch from natural gas to electricity.
15. Prepare sustainable building, siting, landscaping and passive heating and cooling practice guidelines, with a priority on low-income housing, that reduce consumption of non-renewable resources and that include climate and fire-safety in pre-approved plans.
16. Energy Efficiency to Reduce Electricity Use Use Energy Efficiency to Deliver 15% of Projected Needs for electricity in the county by 2023; and 30% by 2030.
17. Efficiency Building Standards for Retrofits Prioritize energy and water efficiency building standards and work to retrofit existing buildings.
18. Decarbonize County Buildings Develop a county building electrification plan eliminating natural gas use in County-owned facilities.
19. Decarbonize All Building Types Develop an electrification plan with goals for GHG emission reductions through renewable energy that evaluates and prioritizes programs for local solar, energy storage and demand response (DR) that disconnects all buildings from gas service by 2050. Include incentives for deep retrofits of inefficient buildings.

I68-28

Agriculture:

1. Integrated Pest Management where toxic pesticides are a last resort. Create a program that promotes the principles (systems approach, building trust, and effective communication) and pursues the recommendations of the Roadmap for Integrated Pest Management from the University of California and CA Department of Pesticide Regulation. Environmental impacts from toxic pesticides are not described in the Background Report. The Roadmap to an Organic California Policy Report by CCOF Foundation offers information for mitigations and climate action. A workshop is needed.
2. Inorganic Nitrogen Based Fertilizers Set benchmarks for reducing use of inorganic N fertilizer and encourage optimized use of organic and inorganic fertilizer for greatest efficiency in closed nutrient cycles, monitor for nutrient runoff from fields and encourage the use of cover crops and green manure crops to reduce or avoid nitrous oxide (N2O) emissions and nutrient runoff.
3. Diversified Cropping Systems Encourage farmers to include 1 – 5% of beneficial insect attracting plants in a planted crop, and other methods, such as crop rotation, perennial mowed cover crop in orchards, and integrating multiple species or varieties to enhance the biological and economic stability by spreading economic risk and buffering against pest invasions and extreme weather events, and increase carbon sequestration.
4. Reward Regenerative Farmers with Digestate and Compost from Food Waste Research feasibility of a program for composting food waste for use by farmers and landscapers who use regenerative practices that sequester certified amounts of CO2.

I68-29

Water Resources:

1. At least 30,000 acre-feet per year must come from storm water capture by 2035
2. All rainfall must be retained onsite in soil and reservoirs.
3. Slow It. Spread It. Sink It! The County shall enforce Best Management Practices (BMP) and Low Impact Development (LID) for new developments.
4. Recycle all wastewater for beneficial reuse by 2035.
5. Reduce potable water use per capita by 22% by 2025 and 25% by 2035: Offer incentives for water conservation features, including drought tolerant landscaping, permeable materials in standard parkway design guidelines, street trees, infiltration, greywater, and water-saving plumbing.
6. Close oil and gas wells and injection wells near aquifers as a top priority.
7. Create a Master Plan to develop the full potential of integrated water management to infiltrate the ground and recharge aquifers; support reforestation and restoration of watershed ecosystems; conserve and protect groundwater resources, and clean up creeks, streams, and estuaries.
8. Support Santa Clara River Loop Trail and Ventura River Trail Development

I68-30

Economic Vitality:

1. Agricultural Diversification should include reference to regenerative practices to create biodiversity with opportunities for community members to visit farms.
2. Small Business Promotion. Support approval of caretaker residential space on business property to reduce VMT and more financial strength for small businesses.
3. Green Economy. Prioritize youth and immigrants for workforce development in industries that promote and enhance environmental sustainability, including GHG reductions, climate adaptation, resiliency and local renewable energy generation, storage and distribution, including solar power, wind power, wave energy, regenerative organic farming and value-added agriculture-related activities, and other appropriate renewable sources.
4. Maritime Economy. Facilitate a sustainable maritime economy using restorative aquaculture techniques that restore ocean health and biodiversity while reviving pre-human fisheries abundance. For example, restore sand-bottom kelp forests and increase kelp forests with flexible floating fishing reefs where the seafloor is otherwise too deep for kelp.
5. Promote Fire-Resistant Infill and Revitalization. Encourage infill development that serves as firebreak rather than as additional fuel for wildfires.
6. Create a Collaborative Structure for Innovation for a Resilient Future. The structure should be able to make decisions and create a way forward for zoning, building and materials and environmental health to allow options for a resilient future, include government officials, innovators and public as described in submissions from Sustainable Living Research Initiative.
7. Parking Infrastructure. Develop parking policies to reduce single occupancy trips associated with employees and business activity to reduce Vehicle Miles Traveled.
8. Master Plan for Distributed Energy Resources and Community Microgrids. Prepare a map of siting options for renewable energy generation and storage facilities and coordinate the identification of financing options for renewable energy resource development, including solar, wind, wave, storage and community microgrids both in front of and behind the meter.

I68-31

In summary, with the accelerating tipping points, we cannot go half-way in our vision. We need extraordinary courage to set goals we can hang our hopes and efforts on. We want completeness and clarity so we can see how the emissions reduction plan adds up. We want respect for climate science to tell us the truth. We want more ambition. A 2016 decision of the state legislature in SB32 is just not good enough as a goal. We want to see a systematic plan that will assure carbon neutrality no later than 2045.

I68-32

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| Letter I68 | Gordon Clint February 23, 2020 |
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This comment letter repeats many of the same comments provided in Letter I29. The responses below provide cross references to the portions of Letter I29 where responses to the same comments have already been provided.

- I68-1 The concerns of the commenter regarding climate change and importance of the County's General Plan are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I68-2 Refer to response to comment I29-3 with respect to the treatment of methane and oil and gas extraction.
- I68-3 Refer to response to comment I29-4 with respect to statewide greenhouse gas (GHG) reduction goals.
- I68-4 The commenter's concerns related to climate change are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I68-5 Refer to response to comment I29-6 regarding mitigation for climate change impacts.
- I68-6 Refer to response to comment O1-7 regarding criteria air pollutant emissions.
- I68-7 Refer to response to comment I29-8 regarding impacts and mitigation related to climate change and stormwater management.
- I68-8 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I68-9 Refer to response to comment I29-10 regarding the evaluation of energy use in the draft EIR.
- I68-10 Refer to response to comment I29-11 for a discussion of decarbonization and electrification of the transportation system.
- I68-11 Refer to response to comment I29-12 regarding the use and transport of hazardous materials as well as feasible mitigation.
- I68-12 Refer to response to comment O1-13 regarding hydrology and water quality.
- I68-13 Refer to response to comment I29-14 regarding incompatible land uses, health risk, and environmental justice.
- I68-14 Refer to response to comment I29-15 regarding economic effects and climate changes effects.

- I68-15 Refer to response to comment I29-16 for discussion of 2040 General Plan Policy CTM-C.
- I68-16 Refer to response to comment I29-17 regarding California Environmental Quality Act requirements for the analysis of GHG effects.
- I68-17 Refer to response to comment I29-18 regarding renewable energy and microgrids.
- I68-18 Refer to response to comment I29-19 regarding regulations and policies related to solid waste and recycling.
- I68-19 Refer to response to comment I29-20 regarding comments submitted by Bruce Smith. Also, see responses to Letter I20 from Bruce Smith.
- I68-20 Refer to response to comment I29-21 regarding use of a statement of overriding considerations and evaluation of vehicle miles traveled.
- I68-21 See response to comment I29-22 regarding concerns about environmental impacts associated with modifications to State Route 118 proposed in the 2040 General Plan.
- I68-22 Refer to response to comment I29-23 regarding vehicle miles traveled benchmarks.
- I68-23 Refer to response to comment I29-24 regarding suggested topics to be considered in the 2040 General Plan.
- I68-24 Refer to response to comment I29-24 regarding suggested revisions to proposed 2040 General Plan policies.
- I68-25 Refer to response to comment I29-26 regarding proposed renewable energy policies in the 2040 General Plan.
- I68-26 Refer to response to comment I29-27 regarding suggested topics to be considered in the 2040 General Plan.
- I68-27 Refer to response to comment I29-28 regarding the commentary on the County's policies and procedures relative to the oil and gas industry.
- I68-28 Refer to response to comment I29-29 regarding suggested topics to be considered in the 2040 General Plan.
- I68-29 Refer to response to comment I29-30 regarding suggested topics to be considered in the 2040 General Plan.
- I68-30 Refer to response to comment I29-31 regarding water resources.
- I68-31 Refer to response to comment I29-32 regarding suggested topics to be considered in the 2040 General Plan.
- I68-32 The comment emphasizes the need for an adequate plan that sufficiently reduces GHG emissions. This comment is conclusory in nature and does not raise a significant environmental issue for which a response is required.

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

Letter
I69

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I69-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I69-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I69-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually

I69-4

impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I69-4
cont.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I69-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I69-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I69-7

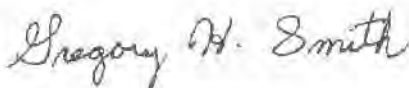
In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I69-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I69-9

Sincerely,



P.O. Box 25010
Ventura, CA 93002

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| Letter I69 | Gregory H Smith February 25, 2020 |
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This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I69-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I69-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I69-3 Refer to response to comment I4-3 regarding water availability and cost.
- I69-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I69-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I69-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I69-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I69-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I69-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

H ELAINE CAVALETTO
4031 PRICE ROAD, SOMIS, CA 93066
elainesomis@msn.com 805-479-1422

Letter
170

February 27, 2020

Ventura County Board of Supervisors:
Susan.Curtis@ventura.org

Re: 2040 General Plan Draft EIR Comment

I have some concerns about the 2040 General Plan Report (EIR) that has recently been released. With 700+ policies and implementation programs how can you say you have finished this plan in 6 weeks? 12-18 + months is, what I am understanding, what it takes to adequately complete all the analysis and their impacts.

As an 85 year old farmer, in this county since 1957, it appears that more and more you are not looking what is best for individuals nor long/short term solutions to many issues.

I70-1

As with a recent issue, a few people stood up talking about “their rights” and to heck with other’s rights. Maybe the initial decision, to approve the crop, was made in haste. As well as extending the ban to plant the crop to 10 ½ months. Why not go for another 45 days? You have just taken income from those that farm and taken the side of those who “yell” the loudest.

Wildfire Corridor is another issue – restrictions on brush removal leads to increased fuel load and increased wildfire risk. Did your decisions make things better or worse?

I70-2

Why would you require small development projects to purchase farmland to preserve in perpetuity? Where are small pieces of farmland available and who will manage these small ag preservation parcels. Again, as I see it, take away from those in agriculture to give to others who have not put in any dollars, sweat or tears in the land. Again, increasing regulatory demands on agriculture.

I70-3

How current was the background information that was used to understand and evaluate the County’s impact analysis. My understanding is that it was older than 2015.

I70-4

What does the analysis show on these indirect impacts that affect landowners? Such as: theft and vandalism, complaints by those who know nothing about agriculture, water competition, speeding cars in rural areas without regard for farm machinery, etc.

I70-5

There are many other areas that I feel were not considered and most certainly will continue to increase farming operational costs such as: converting ag equipment to electric, requiring all electric water pumps, water supply increases.

Sincerely,
H Elaine Cavaletto

cc: chris@rinconstrategies.com and llampara@colabvc.org

| | |
|-----------------------|------------------------------------------------|
| Letter I70 | H Elaine Cavaletto February 27, 2020 |
|-----------------------|------------------------------------------------|

- I70-1 The commenting individual's concerns regarding the EIR are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I70-2 The comment states that "wildlife corridor" is an issue and that restrictions on brush removal leads to increased fuel load and increased wildfire risk. The commenter's reference to restrictions on brush removal within wildfire corridors is unclear. This term is not used in the draft 2040 General Plan. Refer to response to comment I4-6 regarding the County's Habitat Connectivity and Wildlife Corridor ordinances, which are separate from the 2040 General Plan, and the draft EIR's analysis of wildfire impacts.
- I70-3 The commenter's references to purchasing farmland for agricultural preservation is unclear and increased regulatory demand are unclear. It is inferred that the commenter may be referring to Mitigation Measure AG-2. Refer to Master Response MR-5 for further discussion of the feasibility and applicability of Mitigation Measure AG-2.
- I70-4 Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I70-5 The commenter expresses concerns such as theft, vandalism, and speeding cars as potential indirect impacts to landowners. State CEQA Guidelines, Section 15126.2(a) explains that "[a]n EIR shall identify and focus on the significant effects of the proposed project on the environment." Therefore, only the environmental impacts caused by adoption of the 2040 General Plan need to be addressed in the EIR. The draft EIR is not required to analyze the impacts of the project to landowners, only the environment. In addition, the 2040 General Plan requires that the County provide adequate law enforcement and emergency services to county residents (Policy PFS-11.1), and future development, in particular on the edges or outside of existing developed areas, to maintain adequate service ratios and other performance standards. See response to comment I2-5 for additional discussion.
- The comment expresses concern for indirect and direct impacts related to competition for water supplies for agriculture. Refer to response to comment A13-11 regarding water supplies.
- It is assumed that the commenter is referencing Policy AG-5.2 and AG-5.3 when referring to the conversion of "ag equipment to electric" and "requiring all water pumps." Refer to response to comment A13-10 regarding 2040 General Plan Policies AG-5.2 and AG-5.3.
- The commenter's reference to water supply increases are vague and no response can be provided.

From: Harmony Eckberg <harmonyeckberg@yahoo.com>
Sent: Saturday, February 22, 2020 11:58 AM
To: General Plan Update
Subject: Comments on new Draft Environmental Impact Report

Letter
I71

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Spam.Manager@ventura.org

Ventura County must protect our quality of life with bold action on climate in its General Plan Update. This document sets the policies that drive all land-use decisions for the next 20 years, but the current draft is completely inadequate in addressing the climate crisis.

A recent report in the Washington Post confirmed that we are the fastest-warming county in the continental U.S.

We have seen the catastrophic effect of a warming world in the fierce winds that whipped the Thomas and Woolsey fires out of control and we will not forget the suffering it caused our families and neighbors.

Climate change is caused by fossil fuel production and consumption. We must do our part to reduce oil production through thoughtful, rigorous policy to phase it out.

Your written comments will let the Board of Supervisors know your concerns...if you don't write, they won't know.

Buffer Requirements – The proposed buffers for locating oil and gas facilities a safe distance from schools and homes are inadequate. Studies show adverse health impacts from oil and gas facilities at distances of at least half a mile.

Action Needed: Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet.

Trucking vs. Pipeline – Currently, oil and produced water from local oil wells are mostly transported by truck. Trucking creates safety hazards on county roads, exposes residents to toxic diesel pollution, and causes substantial amounts of greenhouse gas emissions. Draft General Plan Policy COS-7.7 attempts to address this problem by requiring newly permitted oil wells to use pipelines instead of trucks to transport oil and produced water. However, the DEIR attempts to undermine Policy COS-7.7, concluding that the added costs of constructing pipeline connections make this policy infeasible and may lead to a loss of petroleum resources. The DEIR proposes to allow trucking if pipelines are deemed infeasible. This would create a loophole allowing oil companies to simply claim that the cost of a pipeline connection is too high.

Action Needed: Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.

I71-1
I71-2
I71-3

Flaring – Draft General Plan Policy COS-7.8 requires gases from all new discretionary oil and gas wells to be collected and used, or removed for sale or proper disposal, instead of being flared or vented to the atmosphere. The policy would allow flaring only in cases of emergency or for testing purposes. This is important because venting and flaring release both toxic gases and powerful climate pollutants like methane to the atmosphere.

The DEIR tries to undermine this policy, too. It concludes that the added costs of treating the gas on site or constructing pipeline connections would make this requirement infeasible and may lead to a loss of petroleum resources. The DEIR instead would allow flaring if conveyance by pipeline is deemed infeasible, creating another loophole that could allow oil producers to simply claim that the cost is too high and continue with business as usual.

Action Needed: Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

I71-4

Climate Action Plan – The draft General Plan and the DEIR conclude that the county’s greenhouse gas emissions would have significant impacts. However, the Climate Action Plan proposed as part of the General Plan is inadequate and will not reduce emissions in a meaningful way. Most proposed Climate Action Plan policies are vague and aspirational, relying on noncommittal assurances that the county will “encourage” and “support” change rather than clearly require measurable reductions in climate pollution.

Climate Action Plan policies must result in measurable, enforceable reductions sufficient to meet California’s climate goals. This is important because the General Plan and related Climate Action Plan can be used to streamline approval of future development projects. The county may not carefully analyze the climate consequences of future projects — including discretionary oil and gas development — if those projects claim they’re consistent with the Climate Action Plan. If the Climate Action Plan consists mostly of vague, voluntary, or otherwise unenforceable policies, future projects could easily be found consistent and could evade proper environmental review.

Action Needed: Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

I71-5

Greenhouse Gas “Super-Emitters” – A recent NASA study documents that several Ventura County facilities, including oil and gas operations, are “super-emitters” of powerful climate pollutants. Stationary source emissions, including those from oil and gas operations, make up approximately 26 percent of all emissions in California. The General Plan must include strong policies to detect and curb emissions from these “super-emitters.”

Action Needed: The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

Sincerely,

Harmony Eckberg

I71-6

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|-----------------------|---------------------------------------------|
| Letter I71 | Harmony Echberg February 22, 2020 |
|-----------------------|---------------------------------------------|

- I71-1 The commenter’s concerns regarding climate change in Ventura County are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I71-2 Refer to Master Response MR-4, Section MR-4.H Buffers (Setback) regarding the findings and conclusions related to buffers (setbacks) in oil and gas operations.
- I71-3 Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements,” regarding the findings and conclusions related to pipelines in oil and gas operations.
- I71-4 Refer to Master Response MR-4, Section MR-4.F, “Flaring,” regarding the findings and conclusions related to flaring in oil and gas operations.
- I71-5 The comment asserts that the greenhouse gas policies of the 2040 General Plan are not actionable. Refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions. Regarding streamlining approval of future development projects consistent with the 2040 General Plan, the draft EIR includes Mitigation Measure GHG-3, which would remove the CEQA streamlining provision proposed in Program COS-EE from the 2040 General Plan, and specify that the potential GHG emissions impacts of future, discretionary projects be reviewed in accordance with the most recent adopted version of the ISAGs at the time of project-level environmental review. For a full discussion of the potential for the 2040 General Plan to result in GHG emissions that contribute to climate change, refer to Section 4.8, “Greenhouse Gas Emissions,” in the draft EIR.
- I71-6 The comment recommends that the County adopt the strongest measures to ensure GHG emissions are curbed, particularly from oil and gas operations that are “super-emitters.” Refer to Master Response MR-1 regarding oil and gas operations and how these activities are addressed in the GHG inventory prepared for the 2040 General Plan and draft EIR.

Heather A. Gilchrist-Wise
8302 Sulphur Mountain Road
Ojai, CA 93023

Letter
172

February 27, 2020

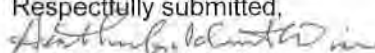
Attn: RMA Planning Division
General Plan Update
800 Victoria Ave., L #1740
Ventura, CA 93009-1740
Susan.Curtis@ventura.org

Dear Planning Division:

In reviewing the 2040 General Plan Environmental Impact Report (EIR), I have some grave concerns that were not addressed and will affect many people in this county. I have listed some below for your review and response:

I72-1
I72-2
I72-3
I72-4
I72-5
I72-6

1. Wildfire risk – EIR states that "managing fuel through activities such as vegetation removal and controlled burns, the County and other agencies would be directly reducing the chance of wildfire as well as fuels that would feed wildfires. This statement does not take into regard that it is in *direct opposite* of County Policies COS-3.2, COS-1.15, Implementation Program COS-H, Implementation Program COS-C and the recent restrictions on brush removal in the Wildlife Corridor. All of these Policies and restrictions will increase wildfire risk and in order to comply with the EIR, must be removed or re-written.
2. CEQA requires that indirect impacts be analyzed: Specifically, the impact on agriculture from the buildout planned in the 2040 General Plan. As the population grows, there will be more interactions with farm land. Presently, in most cases, this leads to more costs for the farmer and can cause a negative effect on this industry in this county.
3. The EIR states that the policies in the 2040 General Plan will decrease water supply for irrigation, but the County has not evaluated this impact. Reducing water supply for irrigation, or even increasing cost to obtain water, will remove ag lands from production which will affect the County significantly.
4. The EIR also does not address the impact of the General Plan that will require ag to use all electric equipment and pumps. This is very expensive and will impact this industry considerably.
5. The General Plan does not seem to take into effect that agriculture is a major industry in the County and will affect the County's revenues if it does not analyze the negative effects that these new policies will have on this industry.

Respectfully submitted,

Heather Gilchrist-Wise

| | |
|-----------------------|----------------------------------------------------|
| Letter I72 | Heather Gilchrist-Wise February 27, 2020 |
|-----------------------|----------------------------------------------------|

- I72-1 The commenting individual’s concerns regarding the draft EIR are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required. Refer to responses to comments I72-1 through I72-6, below, for responses to the commenter’s specific concerns.

- I72-2 The comment states that the 2040 General Plan policies would increase wildfire risk and should, therefore, be removed or rewritten. See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard. Note that the County’s Habitat Connectivity and Wildlife Corridor ordinances, which were adopted in March of 2019 to provide protections for areas designated as important wildlife corridors within the non-coastal unincorporated area, are separate from the 2040 General Plan currently under review.

- I72-3 The comment states that the California Environmental Quality Act requires indirect impacts to be analyzed and provides an example of indirect agricultural impacts that the comment asserts were not analyzed in the draft EIR. Refer to response to comment I2-5 regarding the analysis of indirect impacts on agriculture resulting from buildout of the 2040 General Plan. Note that the County’s Habitat Connectivity and Wildlife Corridor ordinances, which were adopted in March of 2019 to provide protections for areas designated as important wildlife corridors within the non-coastal unincorporated area, are separate from the 2040 General Plan currently under review.

- I72-4 Refer to response to comment I4-3 regarding water availability and cost.

- I72-5 It is assumed that the commenter is referencing Policy AG-5.2 and AG-5.3. Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.

- I72-6 This comment expresses concerns about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
173

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I73-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I73-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I73-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I73-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I73-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I73-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I73-7

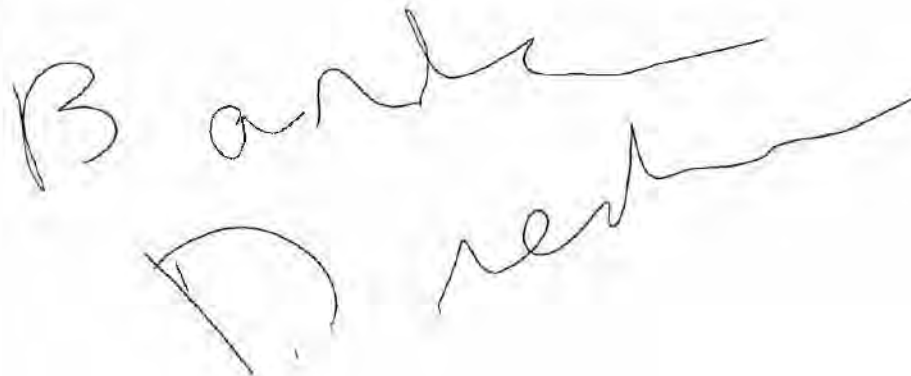
In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I73-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I73-9

Sincerely,



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| Letter I73 | (illegible) C/O Hoffman, Vance, & Worthington February 24, 2020 |
|-----------------------|-------------------------------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I73-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I73-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I73-3 Refer to response to comment I4-3 regarding water availability and cost.
- I73-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I73-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I73-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I73-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I73-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I73-9 Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: James Brehm <james.b.brehm@gmail.com>
Sent: Wednesday, February 26, 2020 11:45 PM
To: Curtis, Susan; General Plan Update
Subject: 2040 General Plan Update - Public Comment
Attachments: Letter to Ventura County Regarding Climate Action Plan.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Letter
174

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February 26, 2020

Ventura County Resource Management Agency, Planning Division
ATTN Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L #1740
Ventura, California 93009-1740

Regarding a Climate Action Plan for the draft 2040 General Plan Update

To Ms. Curtis and the General Planning Committee,

I am extremely alarmed by the lack of foresight the current draft of the 2040 General Plan update. Climate change is coming to Ventura. Specifically, our county has warmed more than any in the lower-48 states with an average increase of 2.6°C as of December 2019.* Maybe you are unaware of the science. If we do not drastically alter our course we can expect to witness the following effects by 2100:

- A conservative estimate of 1.8-3.6 feet and possibly up to 10 feet of sea level rise
- Larger, more frequent wildfires
- Water and food shortages from drought and crop failure
- Ocean acidification and increased oxygen-free 'dead zones' which will threaten the existence of all marine life as we know it
- Mass extinction of life on Earth, collapse of ecosystems.
- Increased disease
- Failure of economic markets
- Mass migration of "climate refugees"

I74-1

Get on the right side of history and prove in this General Plan that you value our children more than oil money. Now is the time to act. Those who came before us were not aware of the problem, and those who come after us will be unable to do anything about it. **Now is the only time.** Though there is reference to a Climate Action Plan in the General Plan, it has no teeth. It has no deadlines, it has no actionable goals, and it sits next to policies like this one:

"Through Policy COS-6.2, the County would maintain maps of mineral deposits identified by the State Geologist as having regional or statewide significance and any additional deposits as may be identified by the County . . . the purpose of this overlay zone is to safeguard future access to the resources, facilitate the long-term supply of mineral resources in the county, and notify landowners and the public of the presence of the resources."

[https://vcrma.org/vc2040.org/images/Draft_EIR - Jan. 2020/VCGPU-EIR_4.12_Minerals_Petroleum.pdf](https://vcrma.org/vc2040.org/images/Draft_EIR_-_Jan._2020/VCGPU-EIR_4.12_Minerals_Petroleum.pdf)

We really can't compromise here. This is about survival. Scientific fact: if we (humans) completely halt all new drilling for oil and just suck dry the reserves we're already tapped into, and burn just that, we will be sent over the threshold for catastrophic, feedback loop global warming. It will mean the end of civilization as we know it. This is not worth any amount of money. We must not permit any new extraction, and we must have a plan to draw down the extraction that is already occurring within Ventura County.

I am not writing this because I am an environmentalist, I am writing this because I demand that you protect the future of my children.

I74-1
cont.I

Respectfully,

James Brehm
553 North Ventura Ave, Apt E
Ventura, CA 93001
631-875-0514

*If you'd like any references for any of the facts in this letter, I will gladly supply upon request.

**Also, please let me know if there's anything else I can do to help make these changes happen besides sending this message. I am willing to put as much energy as necessary into this if it would help.

| | |
|-----------------------|-----------------------------------------|
| Letter I74 | James Brehm February 26, 2020 |
|-----------------------|-----------------------------------------|

I74-1 This comment expresses concerns about the 2040 General Plan, specifically with how it addresses climate change. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

The comment asserts that the policies of the 2040 General Plan are not actionable. Refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions.. For a full discussion of the potential for the 2040 General Plan to result in GHG emissions that contribute to climate change, refer to Section 4.8, “Greenhouse Gas Emissions,” in the draft EIR.

From: Jan Dietrick <jdietrick9@gmail.com>
Sent: Thursday, February 27, 2020 12:51 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>
Subject: Comment Draft EIR Ag - JDietrick & RWhitehurst

Letter
175

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February 27, 2020

Dear Susan Curtis,

Our comments are about the Draft Environmental Impact Analysis of the Agriculture Element of the VC2040 General Plan. We have serious concerns about other chapters, especially Water Resources, but time does not permit us to develop comments.

Before commenting on the topics of food security, resilience, carbon sequestration, regenerative agriculture, inorganic nitrogen based fertilizer, compost, cover crops and low-and no-till, agricultural land conservation and preservation, and Integrated Pest Management, we preface by saying that everything in the General Plan must be seen through the lens of the global climate and ecological crisis and the need for leadership so that the people of Ventura County are confident that the community response meets some minimum standard of social and environmental justice. Climate change necessitates an examination of personal values and a shift of mindset about agriculture policy at the local level.

The VC2040 Environmental Impact Report reflects a great deal of this needed shift, but we see omissions in the coverage of existing conditions in the Background Report and in the scope and/or targeting of the goals, policy and programs. There are five programs added to the EIR that are not in the Draft Plan, so we refer to the EIR except where we have comments about the Goal statements in the Plan. The recommendation we hope you take most seriously is to create a separate Goal for Integrated Pest Management.

Planning that matches the climate crisis is vital. This is not clear enough in the Background Report. The most recent report of the Intergovernmental Panel on Climate Change (IPCC) states that the climate problem points first to what we do on the land. The USDA Economic Research Service reported on the impacts on prices of food, fiber and energy, and agricultural incomes, as well as the environment. “How farmers respond, or adapt—possibly mediated by policy and technology changes—will ultimately determine the impact of these altered growing conditions on production, natural resources, and food security” Report No ERR-266 “Climate Change and Agricultural Risk Management Into the 21st Century” projects an increase in the cost of the Federal Crop Insurance Program due to greater insured value and yield variability resulting from climate change.

I75-1

FOOD SECURITY

Lack of secure food system nationally affects local already extreme insecurity. The Union of Concerned Scientists reported in March 2019 that the already highly degraded industrial model of US agriculture—“a model that neglects soil, reduces diversity, and relies too heavily on fertilizers and pesticides”—makes US farms even more vulnerable to the impacts of climate change. Ventura County depends on the rest of the nation and other countries for 85% of its food supply. Our reliance on international markets and international trade leaves our local economy vulnerable to disruptions such as we must anticipate with the Covid-19 coronavirus.

We need to accelerate localizing our food supply as the focus for food security. It would help to delete the false narrative in Goal 8.4 that local farmers are feeding the local people. If there is no food coming or going, farms are not going to be a resource, which is ridiculous in a county that can grow such a diversity of crops throughout the year.

Goal AG-4.1 needs to include all agricultural products, not just fresh produce, and real incentives and marketing campaigns will be necessary including benchmarks for increased purchase of local products by institutions. Program B to encourage sales and Program C to identify opportunities to provide local food to county agencies are good, but they will need to be stronger. A more aggressive set of programs will be necessary to promote markets for local agricultural products to achieve the food security goal.

It is unacceptable to only “identify opportunities...to the extent feasible” to increase county procurement of local products. Feasibility is a matter of where the County decides to invest. Food security is such a priority goal that the county must invest increasingly year by year in local farmers to stimulate a market signal toward localizing our food supply.

Program F in the EIR is excellent to study and remove barriers to farm stands. The program must specifically aim to help Ventura County farmers sell their products in the county and be able to compete with farm stand operators selling products from the San Joaquin Valley, Mexico and elsewhere. Program G to study the “Farm to Front Door” business model ignores many other possible business models to connect producers and consumers and should be rewritten to be more general.

RESILIENCE

Resilience starts with farmers being informed about the climate modeling and adopting practices that increase biodiversity and enrich soil to hold carbon and water. Ventura County hired scientists to run climate models that show the changes in patterns of rainfall, drought, and extreme weather events and how that is connected to wildfires. The modeling is not found with enough detail in the VC2040 Background Report to help farmers and their advisers and representatives understand what’s ahead and why a shift in mindset about goals and effective policies and programs are needed that mitigate the climate impacts.

I75-2

The Agricultural Resilience goal has one policy AG-6. 2. The plan implies that resilience can be achieved only by crop selection. Neither the goal nor the policy covers the necessity to build soil and water-holding capacity and penetration, increase biodiversity and improve the watershed to hold storm water onsite. Program O in the EIR (Program N in the Draft Policy) refers to reduced tillage but the entire policy and program should be rewritten to assure development of the full scope of important resilience strategies.

INCREASING SOIL CARBON

Carbon sequestration is a moral imperative as well as the centerpiece of resilience. The draft policy to encourage and support carbon farming is not explicit enough about the contribution farmers can make by focused effort to increase soil carbon for climate mitigation.

The California Air Resources Board is working with agencies at local levels to develop measures as outlined in Scoping Plan update and governor's Executive Order B-30-15 to reduce GHG emissions toward net carbon sequestration by California's agricultural sector. The governor's 2030 targets for GHG emission reductions focus on the role played by farmland and soil in the carbon cycle. Research is being done regarding how much GHG is being emitted and how much can be sequestered by California's agricultural lands. The words "when feasible" should be deleted from Policy AG-5. 5 and Program L and replaced by a policy and program to develop meaningful incentives.

A serious flaw in the state Healthy Soils Program is the refusal to allow applications by farmers that have previously done practices on their farm to increase soil carbon. Farmers learn most from other farmers. Our early adopters should be supported to continue to do on-farm experimentation with multi-pronged and innovative practices that to increase their soil carbon and other benefits. The County should create a program complementary to the state program to support exemplary farmers to expand local experiences with carbon sequestration even though they are disqualified (because they are innovators) from the state Greenhouse Gas Reduction Fund programs.

I75-2
cont.

REGENERATIVE AGRICULTURE

Regenerative practices are essential for farmland preservation as well as resilience and food security, whether or not you use that term. The Planning Commission and the Board approved the addition of the word regenerative to the AG-5 goal 'Sustainable Farming and Ranching'. The term does not appear in the draft. Goals inherent in the word regenerative are not covered in the draft policy or programs—**to increase biodiversity and enrich soils to hold more carbon**. Increasing soil carbon and above-ground biomass may be implied by use of the term 'Carbon Farming' but these outcomes should be explicit.

In contrast with regenerative practices, what people understand about sustainable practices does not necessarily include increasing soil carbon and above-ground biomass. The USDA definition of sustainable agriculture: "Make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls. Sustain the economic viability of farm operations. Enhance the quality of life for farmers and society as a whole." Organic farming used to require soil as the growing medium, but not any longer. Using the term "truly sustainable" as in the draft goal still does not assure the features of regenerative agriculture encompassing a robust response to climate change

by mitigating greenhouse gas emissions. Prohibiting the use of the word regenerative results in a loss of meaningful guidance for facing today's challenges. It can be made up for in Goal 5 by at least assuring in the policies and programs its key features of increasing biodiversity, enriching soils in ways that progressively increase soil carbon, increasing above-ground biomass, and improving watersheds.

Biodiversity here refers to everything from soil microbes to plant roots in the soil to above-ground cropping to include 1 to 5% planted for beneficial insect habitat, to include as many native plants as possible. Other practices to increase biodiversity are crop rotation, perennial mowed cover crop in orchards, agroforestry, silvopasture, and interplanting multiple species or varieties of crops. Not only does biodiversity enhance biological function, especially that of carbon sequestration and nutrient cycling, and improve resistance to all risks from diseases to floods, it also improves economic stability by spreading economic risk and buffering against pest invasions and extreme weather events.

I75-2
cont.

INORGANIC NITROGEN BASED FERTILIZERS

Inorganic nitrogen contributes to greenhouse gas emissions and is often unnecessary when regenerative practices are used. The energy used to manufacture and transport artificial N and phosphate fertilizers are major contributors to climate change. Research in pasture and cover crops show fertility is achievable with no nitrogen inputs, artificial or biological. The greater the biodiversity the greater the carbon sequestration, nitrogen fixation, and other nutrient cycling. There is misinformation being shared by trusted experts about the potential to increase soil carbon on Ventura County farms. Research shows that all nutrients, including phosphorus, calcium, and sulfur, as well as nitrogen, are available in soils and can be mobilized by growing the microbial diversity via the "liquid carbon pathway" fed by photosynthesis by a diversity of growing plants. Research and demonstration of this kind should be carried out, particularly in our orchards, vineyards, and other perennial crops.

It is unacceptable as proposed in Policy AG-5.1 to simply "encourage reduced fertilizer use and use of compost and enhanced efficiency fertilizers." This policy disregards the most cost-effective Best Management Practices to reduce inorganic nitrogen fertilizer use by cover cropping and crop rotation. The climate mitigation potential as well as the feasibility and the co-benefits associated with avoiding inorganic nitrogen suggest that AG-5.1 should be changed from 'shall encourage' to 'shall study, monitor and set benchmarks' for reducing use of inorganic nitrogen while encouraging the organic fertility approaches described on page 9-32 of the Background Report. Goals for reduction must show up in the GHG inventory. The inventory reflects no anticipated decrease in use of artificial nitrogen fertilizer for the next 20 years, one of many errors and omissions in the inventory.

I75-3

COVER CROPS AND LOW- AND NO-TILL

Cover cropping is a Best Management Practice for fertility that should be included in Program H in the EIR. Keeping soil covered prevents loss of soils to wind and water erosion. The benefits for food security, resilience and farmland conservation and preservation are so great that Program H should include incentives for cover cropping and crop rotation that builds soil nitrogen to avoid the need for inorganic nitrogen inputs, build soil carbon, hold water, and protect from erosion.

I75-4

A program for equipment sharing would help achieve adoption of low- and no-till farming. Farmers need the right size and adaptation of no-till seeders and transplanters for planting into cover crops, flammers and roller crimpers, flails and/or subsurface cutting equipment to be able to keep the ground covered, lay cover crops down, and enable planting and cultivation with minimum soil disturbance. The program should employ a fabricator to work with growers to modify or build the equipment needed to carry out low- and no-till farming.

COMPOST

Application of compost and compost tea or extract can kickstart increases in soil carbon. This is what is commonly promoted as 'carbon farming'. The County must maximize the availability and use of compost. The County must go beyond the incentives provided by the state Healthy Soils Program and incentivize effective use of compost teas and extracts as well as compost, because when composting is fully implemented there will not be enough compost to support Ventura County land management. There are proven benefits from inoculations with extracts and teas that have not met the state's accountability criteria for the Greenhouse Gas Reduction Fund grants.

The Background Report should include a description of the expanding expertise and experiences in the County to scale small-scale on-site composting, the application of extracts and brewing of custom blends of compost tea. The community organizing by the Center for Regenerative Agriculture in cooperation with Patagonia employees and Once Upon a Watershed is scalable. A plan for composting food waste should include studying the barriers and maximizing areawide and on-site composting for use by farmers and landscapers. We recommend fast-tracking project approvals and county investment in operations to compost food waste and municipal waste. Compost might be used as a reward for those who follow regenerative farm plans that increase soil carbon.

I75-4
cont.

AGRICULTURAL LAND PROTECTION AND PRESERVATION

Agricultural land protection and preservation depends on development of regenerative farming practices. Some "right-to-farm" issues are often moot when regenerative practices are employed. There may still be noise and odor impacts, but pesticides and dust need not be issues. Food safety issues can be managed. Practices that will best assure financially successful farms are not necessarily incompatible with urban areas or existing communities. It may be an economic advantage to develop compatibility with other land uses because, in the end, landowners have more good financial options when they care for their land using compatible regenerative practices. Otherwise, there is little chance that farmland could be dedicated to agricultural conservation easements. Farmland can only be worth conserving if the land manager increases the biodiversity, enriches the soil to hold carbon and improves the watershed. Furthermore, the most financially stable and potentially profitable farms will increasingly be connected to local markets and be patronized by a community that values their use of organic and/or regenerative practices.

As the most certain way to preserve agricultural land, the General Plan should create baselines and goals and targets for carbon sequestration that is an indicator of the value of farmland, with its co-benefits of preventing pest and disease, erosion and nutrient and water loss prevention, and increasing resilience to drought, flooding and resilience to temperature

extremes. If the “right-to-farm” implies that Prime and Important Farmland soil is laid bare, compacted and/or regularly tilled, and exposed to toxic inputs including herbicides, synthetic fertilizer causing it to be devoid of life and subject to erosion and crop failure under extreme weather conditions, then there is no land preservation policy able to save it from being abandoned or sold for development.

INTEGRATED PEST MANAGEMENT

Integrated Pest Management (IPM) policy must be the only pest management policy in the plan and it must be promoted as a system for all sectors, not just a set of practices for farmers. As the University of California definition states, IPM aims to prevent pests and diseases. This is achieved first by healthy plants ideally and then with selection of plants resistant to pests and diseases. Next, healthy plants are achieved by enhanced soil and resulting water holding capacity and fertility and cultural practices tailored to the site, the crop and the seasonal conditions, including habitat enhancement and biodiversity to support naturally occurring beneficial insects and pollinators. IPM is characterized by careful monitoring and avoiding toxic pesticides that disrupt the natural enemy complex that keeps pests below a level that creates economic damage.

IPM is often viewed as a substitution of a more toxic pesticide with a less toxic pesticide—a less disruptive silver bullet. This ignores the foremost feature of IPM which is that it is a system that aims to **prevent** pests and disease. The Agriculture Commission does not currently employ expertise in ecologically systems-based IPM in order to be able to have discussion with applicants about alternatives to pesticides. They have said that they do not see it as their role to advise applicants on alternatives. In our experience it does not appear that applicants are motivated to seriously consider alternatives to toxic pesticides. If the Ag Commission accepts without question whatever shows in the “Alternatives Considered” box on the application form and low risk alternatives are not considered, the process is of no benefit to the public.

One of the barriers to consideration of alternatives is that the most effective alternatives, such as biological control, require earlier lead times and more proactive and multi-pronged strategies than the use of pesticides. The best alternatives to pesticides require attention to soil building and crop plans that forecast insect movement in the farmscape, in other words systems thinking rather than the common replacement of an organic pesticide for higher risk pesticide.

The Background Report and the EIR omit reference to state legal requirements for the consideration of alternatives and cumulative effects before an applicant is approved to use a regulated pesticide. Pest Control Advisers who represent pesticide companies often do not understand or recommend IPM approaches to pest management. They have a conflict of interest, being paid a commission when they sell pesticides.

Pest Control Advisers who do not represent pesticide companies also are not materially incentivized to recommend many IPM practices because it usually requires more advanced agroecological knowledge and experience, and involves more frequent scouting, uncertainty, risk, and complex judgments about economic thresholds. Everything in the existing culture and incentives related to pest management advising and pesticide use applications favors the decision to use pesticides and conclude that there are no alternatives. There is no

I75-4
cont.

enforcement of the law over this decision-making process. These existing conditions highlight the need for the Agriculture Commission and the Cooperative Extension to somehow create learning opportunities about ecologically based Integrated Pest Management as a systems approach prioritizing pest and disease prevention.

Policy and programs are needed that lead the entire community of regulators, consultants, farmers and consumers along the Roadmap for Integrated Pest Management in the shift of mindset about pest management described on page 11 that flips the risks and incentives to favor the most effective alternatives that keep pests and disease below economic thresholds.

While developing protocols for guidance, discussion, and documentation of the consideration of alternatives within the definition of IPM, at the very minimum there must be a framework for analyzing cumulative effects of more than one aerial or vapor-borne pesticide and the effects from pesticides used in a non-attainment area for other air pollutants. There is at least one scientifically documented case study in the county of the failure to consider cumulative effects and other cases where studies are urgently needed as a result of the calendar spraying for Asian citrus psyllid.

The policy and programs relating IPM to the general public should also look deeper to support the shift in mindset described in the Roadmap to IPM. It is just scraping the surface “to provide information on IPM and agriculture produces and practices” as stated in Policy AG 3.3. IPM policies should be placed under a separate new goal with policies aligned with the state Roadmap for Integrated Pest Management recommendations. See at https://www.cdpr.ca.gov/docs/pestmgt/ipm_roadmap.pdf

Excerpting ideas from pages 16 and 17 of the Roadmap, for example:

- a. **Hire an IPM coordinator and revive the county’s IPM Committee** with county public participation to promoting IPM practices
- b. **Drive demand for IPM in the value chain** by coordinating efforts with key organizations to link IPM and regenerative and sustainable agriculture initiatives with retail brands and raise awareness among commodities and allied groups such as packers and shippers, retailers, and trade partners

I75-4
cont.

- c. **Participate in speeding up IPM innovation** through innovation hubs and on-farm research of ecologically based preventive strategies
- d. **Invest in trusted messengers** by collaborating with community-based organizations to facilitate field worker training on IPM and highlight ways they can be IPM leaders in the community as partners and storytellers, creating opportunities through environmental justice to address pest and pesticide issues for low-income households and neighborhoods, and expanding educational offerings in Spanish and Mixtec with culturally appropriate materials
- e. **Profit from frontline knowledge of field workers and municipal applicators** to improve early detection of pests, recommend lower risk approaches, and use safe practices in the workplace
- f. **Strengthen the public's capacity to understand** pests, pesticides and IPM by featuring IPM in training programs including STEM in schools, community colleges, 4-H, Master Gardeners, senior citizens' groups and others, teach consumers about pest prevention using IPM examples, promote positive public announcements with using IPM in core messages, and include identification of pesticide poisoning in continuing education of health professionals
- g. **Make practitioners more effective voices** for IPM by training frontline workers in agriculture, landscape and structural IPM
- h. **Leverage non-traditional resources** for IPM by working with Chumash and Mexican indigenous leaders to learn and expand the community's awareness about native wisdom that relates to IPM
- i. **Strengthen capacity of practitioners** to use more true IPM by supporting on-farm demonstrations and farmer-to-farmer field days and establishing training in non-agricultural settings e.g., restaurant and assisted-living workers, landscapers, etc.
- j. **Help redesign the retail IPM process** with programs to support retailers to educate consumers about responsible use of pesticides, limiting availability of high risk pesticides in the marketplace to trained and licensed professionals, and creating partnerships with local organizations such as Ocean Friendly Gardens to provide education and resources for consumers. An excellent example is the Our Water; Our World program.

I75-4
cont.

Sincerely,

Jan Dietrick, Master of Public Health, and
Ron Whitehurst, Licensed Pest Control Advisor
Co-Owners of Rincon-Vitova Insectaries, Inc.
108 Orchard Dr
Ventura, CA 93001
805-746-5365

| | |
|-----------------------|-------------------------------------------------------------|
| Letter I75 | Jan Dietrick and Ron Whitehurst February 27, 2020 |
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I75-1 The comments regarding the draft EIR analysis of the 2040 General Plan Agriculture Element and the need to include climate change in planning are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

Regarding the comment that the Background Report does not clearly convey the commenter's statement that "(p)lanning that matches the climate crisis is vital," the draft EIR references Chapter 12 of the Background Report, which provides an overview of climate change science, sources of greenhouse gas (GHG) emissions in the county, and the regulatory setting for GHG emissions (Section 12.1, starting at page 12-1) and describes the anticipated impacts of climate change in the county (Section 12.2, starting at page 12-19). Section 12.2 addresses the impacts of climate change on agriculture in the county, including from increased temperature, changes in precipitation patterns, and sea level rise. Also refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR, including discussion on the level of detail and scale of information.

Additionally, the comment states that five programs are added to the EIR, but are not in the draft 2040 General Plan. These five programs are not identified and no further specifics are provided in the comment. Thus, no further response can be provided.

Regarding the comment that the County should create a separate goal for Integrated Pest Management, this comment addresses the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I75-2 The comment addresses additional topics including food security, resilience strategies involving agriculture, carbon sequestration on agricultural lands, regenerative agricultural practices, and use of fertilizers that the commenter requests be addressed in the 2040 General Plan. As explained in the draft EIR, the 2040 General Plan includes eight implementation programs that would support reduced greenhouse gas (GHG) emissions from the agricultural uses in the county, including programs that reduce use of inorganic fertilizers, encourage farmers to adopt organic growing techniques, encourage the capture and storage of concentrated carbon in soils from farm waste and woody biomass; and improve soil health and reduce the need to apply inorganic fertilizers (pages 4.8-39 to 4.8-43). This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- 175-3 The comment suggests that the language of Policy AG-5.1 be amended and that the GHG reduction benefits of the amended policy be represented in the GHG inventory. Contrary to the commenter’s assertion, the GHG inventory does assume reduced use of inorganic nitrogen fertilizer by 2030. Table 4.8-5 (page 4.8-39) of the draft EIR provides a numerical estimate of the anticipated GHG reductions association with Program AG-H: Nutrient Management Plans by 2030. Based on the analysis provided in Appendix D of the draft EIR, the County assumed that 25 percent of inorganic nitrogen fertilizer would be replaced by locally sourced organic waste resulting in 33,830 metric tons of carbon dioxide equivalent by 2030. The GHG inventory was conducted using the most current and available data, reasonable assumption predicated upon facts, and expert opinion supported by facts consistent with State CEQA Guidelines, Section 15384. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- 175-4 The comment requests that additional topics be addressed in the 2040 General Plan including cover cropping, crop rotation, low- and no-till farming, carbon farming, regenerative agricultural practices, and integrated pest management. Note that the 2040 General Plan includes implementation programs that encourage and facilitate carbon farming (Implementation Program AG-L) and provide subsidies for producing resilient crops (Implementation Program AG-O). Also refer to response to comment 175-2. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- Additionally, the comment states that the Background Report and EIR omit reference to state legal requirements for the consideration of alternatives and cumulative effects before an applicant is approved to use a regulated pesticide. It is not clear to what legal requirements the comment refers, and no specifics are provided in the comment. The draft EIR contains an analysis of alternatives to the project and cumulative effects of the project, as required by the California Environmental Quality Act (see Chapters 6, “Alternatives,” and 5, “Cumulative Impacts,” respectively). No further response to this comment can be provided.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Sunday, February 9, 2020 7:03 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

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| Letter 176 |
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You have a NEW Comment

Name:
Jeannette Welling

Contact Information:
2450 Pleasant Way Unit Gm Thousand Oaks, CA 91362

Comment On:
Draft Environmental Impact Report

Your Comment:

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------|--|-------|--|-------|
| <p>Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet.</p> <p>Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking. The DEIR would allow flaring if conveyance by pipeline is deemed infeasible, creating another loophole that could allow oil producers to simply claim that the cost is too high and continue with business as usual.</p> <p>Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.</p> <p>The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.</p> | <table border="0"> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; height: 15px;"></td> <td style="padding-left: 5px;">I I76-1</td> </tr> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; height: 15px;"></td> <td style="padding-left: 5px;">I76-2</td> </tr> <tr> <td style="border-left: 1px solid black; border-right: 1px solid black; height: 15px;"></td> <td style="padding-left: 5px;">I76-3</td> </tr> </table> | | I I76-1 | | I76-2 | | I76-3 |
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| Letter 176 | Jeannette Welling February 9, 2020 |
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| I76-1 | Refer to Master Response MR-4, Section MR-4.H Buffers (Setback) regarding the findings and conclusions related to buffers (setbacks) in oil and gas operations. |
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| I76-2 | Refer to Master Response MR-4, Section MR-4.G Pipeline Requirements, regarding the findings and conclusions related to pipelines in oil and gas operations. |
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| I76-3 | The comment requests that the County revise 2040 General Plan policies to achieve measurable, enforceable reductions in greenhouse gas (GHG) emissions and adopt the strongest possible measures. Refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions. |
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20200225 10:29 AM

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

Letter
177

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I77-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I77-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I77-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually

I77-4

impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I77-4
cont

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I77-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I77-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I77-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I77-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I77-9

Sincerely,



2960 Solimar Beach Drive
Ventura, CA 93001

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|-----------------------|---------------------------------------------|
| Letter I77 | Jeffery P Smith February 25, 2020 |
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This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I77-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I77-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I77-3 Refer to response to comment I4-3 regarding water availability and cost.
- I77-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I77-5 Refer to response to comment I4-5 regarding the commenter’s request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I77-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I77-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I77-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I77-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Jenn Foster <jenniferfoster7317@yahoo.com>
Sent: Thursday, February 27, 2020 12:45 PM
To: General Plan Update
Subject: General Plan 2020 Updates

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| Letter 178 |
|-----------------------|

Follow Up Flag: Follow up
Flag Status: Completed

Hello,

I would urge the County to include how the agency would establish a "preponderance of evidence that the resource is not archaeologically or culturally significant." How would this be done, by whom would it be done, and could any decisions be appealed?

The number of archaeological sites in Ventura County is decreasing at a rapid rate and the definition of archaeological significance should be revised, "that all Native American archaeological sites, should be considered significant since the prehistoric identity of the Indigenous groups is tied solely to archaeological evidence." Loss of any sites would irrevocably result in loss of significant portions of their culture.

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I78-1
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Thank you for your consideration.

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| Letter 178 | Jenn Foster February 27, 2020 |
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This comment letter repeats many of the same comments provided in Letter O30. The response below provides cross references to the portions of Letter O30 where responses to the same comments have already been provided.

I78-1 The comment inquires as to how the County would “establish a preponderance of evidence” that an archaeological or cultural resource is significant, asserts that archaeological sites in Ventura County are “decreasing at a rapid rate” and suggests a revised definition of “archaeological significance.” Refer to response to comment O30-1 for discussion of these issues.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 8:26 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
179**

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:
Jennifer Johnson
Contact Information:
Jstrong12712@gmail.com

Comment On:
Climate action plan

Your Comment:
we need a Climate Action Plan with measurable targets and outcomes!

The current draft General Plan won't help Ventura County meet its climate goals. The policies are not measurable or enforceable, and are not sufficient to drive the kind of change necessary to meet greenhouse gas reduction targets. The County needs to step up, and time is running out to address the climate crisis.

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179-1

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| Letter 179 | Jennifer Johnson February 26, 2020 |
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179-1 This comment expresses concerns about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Also, refer to Master Response MR-1 for information pertaining to greenhouse gas reduction planning concerns.

From: VC2040.org Comments <alan.brown@ventura.org >
Sent: Wednesday, February 19, 2020 4:40 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

| |
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| Letter I80 |
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You have a NEW Comment

Name:
Jim Whitney
Contact Information:
jim.whitney@yahoo.com

Comment On:
the draft environmental impact report.

Your Comment:

The buffers for locating oil and gas facilities a safe distance from schools and homes are inadequate. Studies show adverse health impacts from oil and gas facilities at distances of at least half a mile. Buffers should be increased from the current proposal of 1,500 feet to 2,500 feet.

I80-1

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| Letter I80 | Jim Whitney February 19, 2020 |
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I80-1 Refer to Master Response MR-4, Section MR-4.H Buffers (Setback) regarding the findings and conclusions related to (buffers) setbacks in oil and gas operations.

From: VC2040.org Comments <alan.brown@ventura.org >
Sent: Wednesday, February 19, 2020 4:45 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

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| Letter I81 |
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You have a NEW Comment

Name:
Jim Whitney
Contact Information:
jim.whitney@yahoo.com

Comment On:
the draft environmental impact report.

Your Comment:

Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

I81-1

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| Letter I81 | Jim Whitney February 19, 2020 |
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I81-1 Refer to Master Response MR-4, Section MR-4.F Flaring regarding the findings and conclusions related to flaring in oil and gas operations.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 19, 2020 4:58 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

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| Letter I82 |
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You have a NEW Comment

Name:
Jim Whitney
Contact Information:
jim.whitney@yahoo.com

Comment On:
the draft environmental impact report.

Your Comment:
 Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.
 /Users/Blackfoot/Desktop/Screen Shot 2020-02-19 at 4.53.21 PM.png

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| I82-1 |
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| Letter I82 | Jim Whitney February 19, 2020 |
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I82-1 The comment requests revision of policies in the 2040 General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions. The 2040 General Plan does include measurable targets for greenhouse gas reductions for 2030, 2040, and 2050 that are aligned with the State’s legislative greenhouse gas reduction targets and other reduction goals (page 4.8-6). Refer to Master Response MR-1 for further discussion.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 19, 2020 5:02 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

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| Letter I83 |
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You have a NEW Comment

Name:
Jim Whitney
Contact Information:
jim.whitney@yahoo.com

Comment On:
the draft environmental impact report.

Your Comment:
 Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.

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| I83-1 |
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| Letter I83 | Jim Whitney February 19, 2020 |
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I83-1 Refer to Master Response MR-4, Section MR-4.G Pipeline Requirements, regarding the findings and conclusions related to pipelines in oil and gas operations.

From: VC2040.org Comments <alan.brown@ventura.org >
Sent: Wednesday, February 26, 2020 10:50 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

| |
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| Letter 184 |
|-----------------------|

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:
Jimmy Young
Contact Information:
805.570.9002
Comment On:
Climate Action Plan
Your Comment:

Please, please do your best to create a master plan with strong environmental vision and leadership. Please give it measurable parameters and TEATH! Please hold all poluters accoubtable and lead our coubty forward. I 184-1

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| Letter 184 | Jimmy Young February 26, 2020 |
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184-1 This comment expresses concerns about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

The 2040 General Plan includes measurable targets for greenhouse gas reductions for 2030, 2040, and 2050 that are aligned with the State’s legislative greenhouse gas reduction targets and other reduction goals (page 4.8-6). Refer to Master Response MR-1 for further discussion.

From: VC2040.org Comments <alan.brown@ventura.org >
Sent: Monday, February 10, 2020 8:09 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
185**

You have a NEW Comment

Name:
John Brooks
Contact Information:
None
Comment On:
Draft EIR

Your Comment:

The Climate Action Plan isn't good enough. Ventura County needs a Climate Action Plan with measurable targets and outcomes, as a separate document. Policies set in the GenPlan are not measurable or enforceable. Language used in the plan, such as policies that "encourage" and "support" action, are not sufficient to drive the kind of change necessary to meet greenhouse gas reduction targets. I am calling for a separate Climate Action Plan to fill the gaps in the draft General Plan: The county decided not to have a separate Climate element of the General Plan, and instead integrated climate-related policies into the other elements, such as "Land Use" and "Housing." Climate policies are included among these different sections, and compiled in Appendix B of the Plan. Climate was not the primary focus or concern, and these groups lacked the expertise to put forward adequate, science-backed climate policy to guide the next 20 years.

I85-1

Bigger Buffer Requirements
The current plan allows for oil and gas facilities to be located too close to schools and homes. The current draft plan sets a 1500 ft minimum between oil & gas facilities and homes and schools. This is completely inadequate. The negative health impacts of emissions can be seen as much as a mile away from facilities. We are demanding a minimum 2500 ft. (~half a mile) distance from schools and homes for new oil & gas projects.

I85-2

We must Stop Trucking Oil
All newly permitted oil wells should be required to transport oil & wastewater via pipelines, not trucks. Most of the oil and wastewater produced from drilling is transported by trucks. These trucks go through or near our neighborhoods carrying hazardous materials, emitting toxic air pollution, and contributing significantly to the addition of greenhouse gases. The current plan protects oil companies by giving them the loophole to default to additional trucking, instead of installing pipelines if oil companies claim the cost of pipeline connection is too high.

I85-3

The wasteful Flares must stop
I am calling for no new flares in Ventura County. Flares waste a finite natural resource that can be used for energy production. Venting and flaring release toxic gases and powerful climate pollutants like methane into the atmosphere. Under the proposed general plan oil companies would be allowed to continue venting and flaring without restrictions, if they claim the added cost of treating gas on-site or constructing pipeline connections is too high; this technicality lets oil companies carry on with business as usual. Instead, join us in insisting that flaring and venting in all new oil wells be prohibited, except in cases of emergency or testing purposes.

I85-4

Thank you

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| Letter I85 | John Brooks February 10, 2020 |
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- I85-1 The comment suggests that a Climate Action Plan should be separate from the 2040 General Plan and should include stronger policy language. The policies and programs to reduce greenhouse gas emissions are not made less effective or enforceable by virtue of incorporation into the 2040 General Plan. Refer to Master Response MR-1 for further discussion.
- This comment expresses concerns about 2040 General Plan policies and programs to reduce GHG emissions and is not related to the adequacy of the draft EIR. Therefore, no further response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I85-2 Refer to Master Response MR-4, Section MR-4.H Buffers (Setback), regarding the findings and conclusions related to buffers (setbacks) in oil and gas operations.
- I85-3 Refer to Master Response MR-4, Section MR-4.G Pipeline Requirements, regarding the findings and conclusions related to pipelines in oil and gas operations.
- I85-4 Refer to Master Response MR-4, Section MR-4.F Flaring, regarding the findings and conclusions related to flaring in oil and gas operations.

From: John Brooks <johnbrooks69@gmail.com>
Sent: Monday, February 17, 2020 1:01 PM
To: General Plan Update
Subject: One more thing

**Letter
I86**

This preface by Oxnard resident Steve Nash sums up the feelings of many that the EIR is not sufficient:
“The entire assumption of a General Plan and its supporting documentation is to have a forward-looking plan to deal with land use, potential significant impacts and their mitigation measures within a geographical area.

It is my belief, and the belief of many others, that climate disruption caused by greenhouse gas emissions is the primary concern that has to be addressed in this type of document. Any plan that attempts to provide a framework for mitigating significant impacts that does not place climate change at the very forefront of significant impacts is a deeply flawed document and doomed to fulfill its “raison d’etre” which, ultimately, is to secure a safe and prosperous future for the residents and the environment under its jurisdiction.”

Get busy formulating a real climate action plan!

John Brooks
Oak View

I86-1

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| Letter I86 | John Brooks February 17, 2020 |
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I86-1 The comment states that “climate disruption caused by greenhouse gas emissions is the primary concern that has to be addressed” in the 2040 General Plan, as well as the opinion that failing to do so would result in a “deeply flawed document.” The 2040 General Plan addresses climate change by integrating climate change policies and/or implementation programs into every element of the plan. Refer to Master Response MR-1 for additional discussion.

From: John Brooks <johnbrooks69@gmail.com>
Sent: Wednesday, February 26, 2020 9:23 AM
To: Curtis, Susan; General Plan Update
Subject: Comments on Draft EIR

Letter
187

Dear Ventura County-

These comments written by Steve Nash and used with his permission are so wonderfully specific to the concerns that I have over the lack of concrete climate action that I am presenting them here as ideas I share.

187-1

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update
 Section 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740

The entire assumption of a General Plan and its supporting documentation is to have a forward-looking plan to deal with land use, potential significant impacts and their mitigation measures within a geographical area.

It is my belief, and the belief of many others, that climate disruption caused by greenhouse gas emissions is the primary concern that has to be addressed in this type of document. Any plan that attempts to provide a framework for mitigating significant impacts that does not place climate change at the very forefront of significant impacts is a deeply flawed document and is doomed to fulfill its "raison d'etre" which, ultimately, is to secure a safe and prosperous future for the residents and protect the physical environment under its jurisdiction.

The corrective action is to acknowledge the primacy of climate change and the devastating impacts that will be most severely felt in Ventura County. Climate change is caused by fossil fuel production and consumption. We must do our part to reduce oil production through thoughtful, rigorous policy to phase it out. All Goals and Policies incorporated within a General Plan must have annual quantifiable metrics and measurables that lead to a complete cessation of hydrocarbon extraction practices within the county and the elimination of hydrocarbon usage by a date certain.

Pg. 4.3-7, Policy PFS-2.5: County Employee Trip Reduction. The County shall encourage its employees to reduce the number and distance of single-occupancy vehicle work trips.

> What is the goal and how does the County plan on achieving it and in what time frame?

Pg. 4.3-8, Policy PFS-2.6: County Alternative Fuel Vehicle Purchases. The County shall review market-available technologies for alternative fuel vehicles and prioritize purchase of vehicles to reduce greenhouse gas emissions where economically feasible.

> What is the goal and how does the County plan on achieving it and in what time frame?

Pg. 4.3-8, Policy COS-8.1: Reduce Reliance on Fossil Fuels. The County shall promote the development and use of renewable energy sources (e.g., solar, thermal, wind, tidal, bioenergy) to reduce dependency on petroleum-based energy sources.

> What is the goal and how does the County plan on achieving it and in what time frame?

Pg. 4.3-8, Policy COS-8.6: Zero Net Energy and Zero Net Carbon Buildings. The County shall support the transition to zero net energy and zero net carbon buildings, including the electrification of new buildings.

> What is the goal and how does the County plan on achieving it and in what time frame?

Pg. 4.3-9, Policy HAZ-10.5: Air Pollution Impact Mitigation Measures for Discretionary Development. The County shall work with applicants for discretionary development projects to incorporate bike facilities, solar water heating, solar space heating, incorporation of electric appliances and equipment, and the use of zero and/or near zero emission vehicles and other measures to reduce air pollution impacts and reduce greenhouse gas emissions.

> What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame?

187-2

Pg. 4.3-10, Policy HAZ-10.7: Fuel Efficient County Vehicles. When purchasing new County vehicles, the County shall give strong preference to fuel efficient vehicles, include the use of zero emission vehicles when feasible.
 > What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame?

I87-2
cont.

Pg. 4.3-10, Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce stand-by charges.
 > What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame?

Pg. 4.6-6, For the purpose of this Draft EIR, implementation of the impact on energy resources would be significant if implementation of the 2040 General Plan would: Result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation that would cause a potentially significant effect on the environment. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.
 > Include "Not meet a 100% renewable energy economy by 2045."

I87-3

Pg. 4.6-7, Policy LU-11.4: Sustainable Technologies. The County shall encourage discretionary development on commercial- and industrial- designated land to incorporate sustainable technologies, including energy- and water-efficient practices and low- or zero-carbon practices.
 > What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame?

Pg. 4.6-8, Policy CTM-2.12: Countywide Bicycle Lane and Trail System. The County shall coordinate with the cities in the county and Ventura County Transportation Commission (VCTC) to plan and implement a system of bicycle lanes and multi-use trails that link the cities, unincorporated communities, schools including colleges and universities, commercial/retail, employment centers, health care service facilities, public transportation, and other points of interest.
 > What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame?

Pg. 4.6-13, Policy PFS-7.6: Smart Grid Development. The County shall work with utility providers to implement smart grid technologies as part of new developments and infrastructure projects.
 > What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame? All large projects will incorporate a micro-grid with solar and battery storage technology.

I87-4

Pg. 4.6-13, Policy COS-7.7: Conveyance for Oil and Produced Water. The County shall require new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be trucked.
 > All produced water shall be treated on-site so as not unfairly burden disadvantaged and communities of color that have had to accept this toxic waste in the past.

Pg. 4.6-13, Policy COS-8.1: Reduce Reliance on Fossil Fuels. The County shall promote the development and use of renewable energy resources (e.g., solar, thermal, wind, tidal, bioenergy, hydroelectricity) to reduce dependency on petroleum-based energy sources.
 > What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

Pg. 4.6-15, Implementation Program R: Performance-Based Building Code for Green Building. The County shall update the Building Code to establish performance-based standards that incentivize green building techniques.
 > What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

Pg. 4.6-17, Policy WR-3.1: Non-Potable Water Use. The County shall encourage the use of nonpotable water, such as tertiary treated wastewater and household graywater, for industrial, agricultural, environmental, and landscaping needs consistent with appropriate regulations.

> Currently meaningless as written. What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

I87-4
cont.

Pg. 4.8-1, Executive Order (EO) B-55-18, which calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter.

> To provide consistency with the time frame of the General Plan, Ventura County should be carbon neutral by 2040, if not sooner.

Pg. 4.8-11, For the purpose of this draft EIR, implementation of the 2040 General Plan would have a significant GHG emissions impact if it would: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Conflict with an applicable plan, policy, or regulation for the purpose of reducing the emissions of GHGs.

> If there is no actual program to measure GHG from all sources, nor scheduled, implementable reduction protocols that result in carbon neutrality by a date certain then this is meaningless. What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

I87-5

Pg. 4.8-12, Implementation Program P: Annual General Plan Implementation Review. The County shall review the General Plan annually, focusing on the status and progress of program implementation. The County shall prepare a report to the Board of Supervisors summarizing the status of implementation programs and any recommendations for General Plan amendments.

> What are the metrics and measurables and in what time frame and by what date-certain will Program P be fully realized?

Pg. 4.8-22, Implementation Program K: Coordination on Large Onsite Wastewater Treatment Systems Repairs. The County shall coordinate with the Los Angeles Regional Water Quality Control Board to address compliance and repair issues for large onsite wastewater treatment systems (over 5,000 gallons) and package treatment systems.

> Wastewater infrastructure is a source of GHG emissions, especially methane. How will these emissions be measured and mitigated/reduced/eliminated?

Pg. 4.8-23, Policy COS-7.2: Oil Well Distance Criteria. The County shall require new discretionary oil wells to be located a minimum of 1,500 feet from residential dwellings and 2,500 from any school.

> Why the discrepancy? Make the distance a uniform 2,500 feet.

I87-6

Pg. 4.8-23, Policy COS-8.6: Zero Net Energy and Zero Net Carbon Buildings. The County shall support the transition to zero net energy and zero net carbon buildings, including electrification of new buildings.

> What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

Pg. 4.8-24, Policy COS-10.2: Community Greenhouse Gas Emissions Reduction Target for 2030. The County shall achieve a community-wide GHG emissions reduction target of 41 percent below 2015 levels by 2030.

> What are the annual goals and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

Pg. 4.8-27, Implementation Program U: Solar Canopies in Non-Residential Projects. The County shall amend the County's Coastal and Non-Coastal Zoning Ordinances to require parking lots for new non-residential construction projects, with floor area of greater than 50,000 square feet, to include solar canopies.

> Eliminate the floor area requirement and go with a percentage such as 90% of the parking area shall have canopy solar.

Pg. 4.8-27/28, Implementation Program DD: Budget and Staffing Plan for CAP Implementation. The CEO shall, within six months from the adoption of the General Plan Update and Climate Action Plan, present to the Board of Supervisors a proposed budget and staffing plan Greenhouse Gas Emissions Ventura County 4.8-28 2040 General Plan Draft Environmental Impact Report (including qualified technical consultants) to implement the Climate Action Plan, and shall update the budget and staffing plan each year.

> Include a citizen advisory committee, also.

Pg. 4.8-32, Implementation Program Q: Standards for Solar Photovoltaic (PV) Carports in County Lots. The County shall establish standards for inclusion of solar PV carports in County-owned parking lots.

> Implement a 90% coverage by canopy solar by date certain.

Pg. 4.8-32, Include the following, "Work with the Clean Power Alliance to plan, permit and build all possible opportunities to implement the CPA's "Local Programs" mandate."

Pg. 4.8-33, Policy AG-5. 5: Carbon Farming Practices. The County shall encourage and support the efforts of resource conservation districts, farmers, and other stakeholders to expand carbon farming practices, such as reduced tilling, cover-cropping, composting, biochar, and other activities that both reduce GHG emissions and increase carbon sequestration and storage, when feasible.

> Include "regenerative farming".

Pg. 5-11, 5.2.8 Greenhouse Gas Emissions, Thus, the 2040 General Plan's incremental contribution to cumulatively significant climate change effects would be cumulatively considerable.

> Unacceptable conclusion.

The Los Angeles Sustainability Plan, aimed at meeting the goals of the Paris Climate Agreement, has clear and bold goals: "By eliminating fossil fuel production in the county, including drilling, production and refining, the county will protect its residents from harmful local pollution that inequitably burdens low-income communities and communities of color." We should demand no less from our DEIR/General Plan.

Action Needed: The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

Therefore, in my opinion, this DEIR is inadequate, missing disclosure of plan impacts, lacking in meaningful and enforceable policies (e.g., substituting "shall" with "should"), incompletely quantified, and lacking mitigations for cumulative and incremental impacts.

Thank you for your time and consideration.

By Steve Nash

Endorsed by
John Brooks
Oak View

I87-6
cont.

I87-7

| | |
|-----------------------|-----------------------------------------|
| Letter I87 | John Brooks February 26, 2020 |
|-----------------------|-----------------------------------------|

I87-1 The comments written by Steve Nash (refer to Letter I197) and concerns over the lack of concrete climate action are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

I87-2 The comment expresses opinions about the importance of climate change and the need to cease oil and gas extraction. See response to I86-1, above, for a discussion of how climate planning is integrated into the 2040 General Plan. Refer to Master Response MR-1 for discussion of the draft EIR's detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions. Refer to Master Response MR-4 for discussion of the suggestion that the 2040 General Plan require phaseout of petroleum extraction in the unincorporated county.

The comment also cites seven specific 2040 General Plan policies (as identified in Section 4.3, "Air Quality," of the draft EIR) and, for each one, asks about the County's goals, plans to achieve, and anticipated timeframe. These policies are considered qualitatively in the analysis of potential effects on air quality in Section 4.3 of the draft EIR. The impact analysis is not predicated on any assumptions of measurable reductions in air pollutants from these policies.

This comment on policies of the 2040 General Plan is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I87-3 The comment provides a suggested addition to the energy thresholds of significance in the draft EIR related to achieving a 100 percent renewable energy economy by 2045.

For the purpose of evaluating the potential environmental effects of implementing the 2040 General Plan, the thresholds of significance are based on the County's Initial Study Assessment Guidelines (ISAG), as well as the checklist presented in Appendix G of the State CEQA Guidelines; best available data; and the applicable regulatory standards of the County and federal and state agencies with jurisdiction over the resources at issue. As explained in Section 4.1, "Environmental Impact Analysis," (page 4-1) and described in detail for each resource analysis, "deviation from the ISAG thresholds, which were established by the County to evaluate the impacts of individual projects, was sometimes necessary to appropriately consider the programmatic nature of a general plan for the entire unincorporated area, and to incorporate the 2019 revisions to the Appendix G checklist."

The thresholds of significance used in the draft EIR to evaluate energy-related impacts are described on page 4.6-6. In Impact 4.6-1 (starting at page 4.6-18), the draft EIR analyzes whether implementation of the 2040 General Plan would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or impede State or local plans for renewable energy or energy efficiency. On pages 4.8-21 and 4.8-22, the draft EIR provides analysis demonstrating the implementation of the 2040 General Plan would not conflict with or obstruct State plans for renewable energy and energy efficiency. Note that the State has not adopted any plans defining a 100 percent renewable energy economy or demonstrating how it would be achieved.

The suggested threshold would be consistent with Senate Bill (SB) 100, which is a Statewide renewable portfolio requirement implemented by state agencies including the California Public Utilities Commission, the California Energy Commission, and the California Air Resources Board. With full implementation of SB 100 by the end of 2045, zero-carbon sources would account for 100 percent of the electricity in the California grid. At least 60 percent will be provided through renewable energy resources such as wind and solar. The remaining 40 percent would be provided through a combination of renewable and zero-carbon sources, which are anticipated to include recognized methods like energy storage, as well as new technologies that are yet unknown. SB 100 is a statewide requirement that is imposed upon electricity providers. The draft EIR analysis demonstrates that 2040 General Plan implementation would not conflict with or impede SB 100 (page 4.8-22). No further response to this comment is required and no revisions have made to the draft EIR in response to this comment.

- 187-4 The comment cites specific 2040 General Plan policies (as identified in Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR) and, for each one, asks about the County’s goals, plans to achieve, and anticipated timeframe. The comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Also, refer to Master Response MR-1 for additional discussion of the 2040 General Plan, its policies and programs, and mitigation measures related to GHG emissions reductions.
- 187-5 The comment asserts that the County should be carbon neutral by 2040, to be consistent with Executive Order B-55-18, which calls for the State to achieve carbon neutrality by 2045 and net negative GHG emissions thereafter. The thresholds of significance used in the draft EIR to evaluate GHG-related impacts are described on pages 4.8-7 through 4.8-11, and the basis and methodology for establishing GHG reduction targets in the 2040 General Plan are described in Master Response MR-1.
- 187-6 The comment cites specific 2040 General Plan implementation programs and policies (as identified in Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR) and, for each one, asks about the County’s goals, plans to achieve, and anticipated timeframe; for some policies, the commenter provides suggested revisions. The comment addresses implementation of the 2040 General Plan and

is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Also, refer to Master Response MR-1 for additional discussion of the 2040 General Plan, its policies and programs, and draft EIR mitigation measures related to GHG emissions reductions.

187-7

The comment states that the draft EIR's significance conclusion for climate change is unacceptable and requests that the County adopt stronger measures to reduce GHG emissions impacts. Refer to Master Response MR-1 for discussion of the draft EIR's detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions.

John Brooks
140 Beech Rd
Newbury Park, CA 91320

**Letter
188**

February 27, 2020

Transmitted via e-mail: generalplanupdate@ventura.org

Susan Curtis,
Ventura County Resource Management Agency,
Planning Division
800 S. Victoria Ave
Ventura, CA 93009

Re: Comments on County General Plan and Climate Action Plan

Dear Ms. Curtis:

I appreciate the opportunity to review and comment on the County's General Plan and the integrated Climate Action Plan. It is a very significant undertaking and I wanted to recognize that staff has made great strides in incorporating the diversity of interests and often conflicting perspectives.

I have attached comments to this letter and divided them into comments specifically addressing a Policy/Program and an additional more generic set of comments, resources and research that I relied on as part of my evaluation or I was unsure which section or sections to include them in. Hopefully the additional context will assist in the refinement of the GP and CAP.

There is an overreliance on state legislation as a source of emissions reductions in the early years. Local efforts need to be more robust given the urgency of the issue and the potential that the IPPC targets are not substantive enough given the latest scientific analysis. Please see the CFROG letter from June 5, 2019 for a more comprehensive overview. To avoid redundancy, I am not replicating all the CFROG comments. However, I am including them as part of my comments by reference.

188-1

Sincerely,



John Brooks

Climate Change Resources & Comments

Specific comments on sections of the CAP

LU-11.4 Change Shall to Require

LU-16.5 Change Shall to Require

LU-18.5 – “encourage stakeholders” and “have opportunity to learn about” is a pretty low bar. Please upgrade to County shall conduct programs/outreach in their neighborhoods or community gatherings and include multi-lingual capabilities as needed to reach out to the Hispanic and Mixteco populations.

PFS-1.2 & 1.3 – The County should adopt a policy of considering the 100-year projections when evaluating infrastructure since these facilities have significant sunk costs and it is significantly cheaper to upgrade when planning a facility versus retrofitting an existing building.

PFS-2.3 State law requires commercial buildings to be zero net energy (ZNE) in 2030. The County should show leadership, by requiring all new buildings to be ZNE and existing buildings to be in substantial compliance if the County is leasing greater than 50% of the building space.

PFS-E – The County procurement policies should be updated to require all suppliers, vendors and consultants to disclose the sustainability of their operations. The County could award as little as one point to this category, however, the requirement to disclose will have a significant effect on the adoption of policies and procedures that are environmentally beneficial. The County could develop a one-page form checklist that they submit with their bids. Alternatively, large corporations can share their corporate sustainability or ISO certifications and smaller ones can show that they follow the [Ventura County Green Business](#) practices if they have already completed those more comprehensive processes.

COS-8.1 – include promotion of microgrids as both a carbon reduction and resiliency measure for PSPS events.

COS-8.9 - Change Shall to Require and have a list of recommended shade trees appropriate for that region and tolerant of parking lot conditions. This could assist with stormwater mitigation measures and help reduce financial impacts to the County from flow into the public ROW.

COS-H – Ensure that the goal is net additional trees beyond replacement of dead/dying trees or mitigation trees for a project. Recommend that preference be given for tree planting in EJ or low-income communities.

COS-M – In addition, oil companies should pay an extraction fee per barrel for an insurance mitigation fund to ensure that abandoned wells and sites owned by bankrupt companies do not become a burden to taxpayers.

COS-Z – These should be online with easily understandable charts or graphs enabling the public to understand the data and compare to the projected savings to determine if individual measures are being met.

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COS-CC I commend the recommendation to establish a Climate Emergency Council to advise the Board.

COS-DD – A critical component to assist in the development and implementation. An Office of Sustainability should be established within the CEO’s office and the primary staffperson in charge of this effort should be a direct report to the CEO recognizing both the critical and cross-cutting nature of this work and ensure the full cooperation of all County offices.

COS-EE - Measures should be incorporated to ensure that projects continue to implement requirements after the project if finished and occupancy is granted or face substantial penalties. For example, if they bypassed one or more measures, they could agree upfront to a penalty of 10x the carbon wasted with the funds going to assist in low-income areas of the county to weatherize or otherwise reduce their carbon footprint.

Haz-1.4 – The County should develop reach fire codes for the urban-wildland interface to minimize both property damage and the danger to emergency responders trying to protect structures in the new fire environment.

Haz-10.7 Change to read that the County will purchase ZEVs, unless they are not readily available in the vehicle class or purpose needed or the lifetime cost of the vehicle including purchase, fuel and maintenance exceeds 15% of the cost of a non-ZEV. The County needs to show leadership and these vehicles are a very public way to showcase the transition to the low-carbon economy.

HAZ-11.6 What provisions will be made to identify and transport those without transportation and the elderly or disabled who cannot afford or do not have access to AC to cooling centers? Will the cooling centers be open 24/7? One of the problems is that the nights are heating up faster than the days so residents may need to stay overnight. Will animals be allowed in these facilities?

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PSPS/Wind Events

PSPS outages – need to be prepared for 3-7 days of electricity outages. These are not considered emergencies by the Red Cross, so they will not staff shelters. If a substantial part of the county is without power, we will need cooling shelters (with power) which can be a mix of day use only and overnight shelters. The centers will need to have robust electrical charging stations to run oxygen tanks and other medical equipment. Medicines may need to be refrigerated and monitored. Have the shelters been retrofitted with generators or are they wired correctly for three-phase generators? Where will generators be located to quickly deploy especially if routes like the 101 freeway are closed?

A power outage may do the following:

- Disrupt communications, water, and transportation
- Close retail businesses, grocery stores, gas stations, ATMs, banks, and other services
- Cause food spoilage and water contamination
- Prevent use of medical devices and operations or medical/senior center facilities

From [Ready LA County](#)

A spike in generator purchases and rentals by people unfamiliar with their safe operation is likely and may result in carbon monoxide poisoning.

7.13 Wildfire – The County should adopt reach codes for fire.

Although Santa Anas have decreased in in frequency and severity of extreme wind events, the Santa Ana window or primary season is moving to Nov-Jan. This could result in more fires in this period, particularly in dry years¹.

7.13 P – Should also include infrastructure at risk that the County does not control but relies on.

7.13 Does not include anything related to the more intense rains and flooding expected from less frequent, but more intense storms.

In addition, wildfire has profound effects on storm runoff, erosion, and sedimentation in the complex terrain within Ventura County. For several years following a fire, runoff rates can more than double due to fire-driven changes in soil properties that render it water-repellant and reduce infiltration rates (USGS 2005; USGS 2019). Short-duration, high-intensity precipitation under these conditions increases surface runoff that can cause movement of ash, burned vegetation, soil, rocks, and other debris. This material is scoured from steep channels and moved downslope where it may impact communities or infrastructure below as a debris flow.

9.8 G – The County should adopt a policy to establish parcel-based water budgets to prepare for the implementation of the state water efficiency mandates “Making Water Conservation a Way of Life”. This will ensure that parcels that use more than their fair share are targeted for outreach and punitive measures as necessary to comply with the state law.

10 Economic Vitality

EV-4.2 Economic Development Opportunity

California and Ventura County are well-positioned to be leaders in the development and deployment of greenhouse gas (GHG) reduction solutions that will assist in the transition to a low-carbon economy. Because of California’s size and early adoption of significant environmental controls, Cap & Trade, AB 32, and mandatory organics recycling, the state is already a key player in finding sustainable solutions that include cleaner emission vehicles, energy efficient appliances, and green chemistry requirements. These are also the types of jobs and opportunities we need to develop locally to provide opportunities for our youth and to sustain our region.

The aerospace sector was a huge boost to the Southern California region in the 70s. The Bay area has developed the Silicon Valley, and North Carolina has the Research Triangle. What were the key components that enabled these areas to develop into such well-known powerhouses? How can we leverage the transition to a green economy and position Ventura County as a regional Green Innovation Hub?

Next 10 in November 2014, published the *Regional Clean Economy Series* of five reports highlighting five sectors of the state that are forming and nurturing regional clean economy sectors focused on the “core clean economy.” Next 10 is an independent, nonpartisan organization that focuses on the environment, the economy, and the quality of life for all Californians.

¹ Ventura_Climatechange_Review_Oakley.pdf slide 28

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cont.

They define the core clean economy as, *“businesses that provide the cutting-edge products and services that allow the entire economy to transition away from fossil fuels and use natural resources more efficiently.”*

The regions and core clean economy focus for their reports include:

1. Los Angeles and Orange – advanced transportation
2. Sacramento – electric vehicles, building energy efficiency and solar, waste-to-energy
3. San Diego and Imperial – smart grid and biorenewables
4. San Francisco Bay Area – advanced transportation, energy storage, building energy efficiency
5. San Joaquin Valley – water-agriculture, renewable energy

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cont.

General Comments

Requested Policy – Each County department should prepare a Climate Action Plan that evaluates their footprint, mitigation measures, risks to their clientele and mitigation or outreach measures that they will adopt. A substantial portion of this may be done by centralized staff. However, the department staff need to understand the issues and incorporate mitigation measures into their routine activities. This could be the Public Works department, the County Health Department. Climate changes will impact their day-to-day operations and they need to start recognizing, planning for and accommodating those changes.

Economic Related issues

Requested Policy - The Pacific Coast Highway in the Malibu region and the 101 between Ventura and Santa Barbara are both vulnerable. Short-term shutdowns would be disruptive. However, if the corridor was closed for multiple months this would significantly impact traffic and may result in substantial economic impacts. Critical infrastructure should be evaluated regardless of ownership and mitigation plans prepared as warranted.

Article related to Ventura County

[Fires, floods and free parking: California’s unending fight against climate change](#) – Scott Wilson, Washington Post December 5, 2019

Since 1895, the average temperature in Santa Barbara County has warmed by 4.1 degrees Fahrenheit, according to The Post’s analysis. Neighboring Ventura County has heated up even more rapidly. With an average temperature increase of 4.7 degrees Fahrenheit since preindustrial times, Ventura County ranks as the fastest-warming county in the Lower 48 states. [Some climate scientists believe that there is an error in the Post’s projections].

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Public Health

Climate change has been called “the biggest global health threat of the 21st century” (Castello et al. 2009). In the LA region, the health impacts of climate change are far-reaching, including direct and indirect impacts related to extreme heat, poor air quality, wildfires, infectious diseases, floods and mudslides, mental health concerns, and increasing disparities caused by disproportionate impacts to vulnerable populations. (NOTE: LA Region includes Ventura County in the analysis) ...

The number of extreme heat days in southern California is expected to increase considerably by the middle of the century as a result of climate change (pp. 11–12). Extreme heat is one of the most significant health impacts of climate change and already causes more deaths each year in the United States than floods, storms, and lightning combined (Berko et al. 2014). Exposure to extreme heat can cause direct heat-related illness (heat cramps, heat exhaustion, and heat stroke) and death, and can also exacerbate certain existing medical conditions. Heat waves are associated with increases in the number of people seeking emergency medical care for a variety of health conditions, though the magnitude of this effect depends on many factors, including geographic location, demographics, and availability of adaptive strategies such as air conditioning. During California’s 2006 heat wave, there were 16,166

excess emergency department visits and 1,182 excess hospitalizations across the state, with increases in visits for kidney related diseases, diabetes, and cardiovascular disease (Knowlton et al. 2009)².

While all residents are affected to some extent by extreme heat, certain populations are more vulnerable to severe impacts. These include (a) low-income communities and communities of color, which often experience a greater urban heat island effect due to a lack of trees and other vegetation, and which have lower access to air conditioning (Reid et al. 2009a); (b) older adults, young children, people with chronic medical conditions, and people taking certain medications, who are physiologically vulnerable to the effects of heat (Kenny et al. 2010; Reid et al. 2009a; Tsuzuki-Hayakawa, Tochiara, and Ohnaka 1995); and (c) outdoor workers (Bethel and Harger 2014), people experiencing homelessness (Harlan et al. 2013), and others who spend a significant amount of time outside and are more exposed to extreme heat. Unlike cities that have consistently experienced extreme heat in the past, the housing stock in LA is not designed for extreme heat. Approximately 51% of households in the LA-Long Beach area have central air conditioning (American Housing Survey 2015). While California code requires that landlords provide adequate heating facilities in homes, air conditioning is not a requirement. Moreover, the LA region's affordable housing crisis may prevent many renters from being able to move to air-conditioned homes where they would be less impacted by heat. Access to air-conditioned spaces may be additionally limited by factors such as mobility, vehicle ownership, perceptions of neighborhood safety, and distance to transit. These factors can prevent vulnerable populations from implementing adaptive and health protective strategies, such as getting to cooling centers or other air-conditioned locations.³

Do we know the percentage of our houses without AC? Although many resident's dependent on social security or other limited income may not turn on the AC even if they have it in their homes due to financial concerns it would be a starting point.

Climate change may impact mental health through various pathways, including but by no means limited to (a) increases in the frequency and severity of extreme weather events; (b) increasing economic instability; and (c) uncertainty about the future of the planet. Extreme weather events such as fires and floods can have acute mental health impacts. Clear links exist between extreme weather events and anxiety and depression (Kar and Bastia 2006), post-traumatic stress disorder (Neria, Nandi, and Galea 2008; Kar and Bastia 2006), and suicide (Krug et al. 1999).⁴

Public transit infrastructure - Transit design can mitigate human exposure to extreme heat (p. 44). Exposure to extreme heat can result in heat-related illnesses such as heat cramps, heat stroke, and heat exhaustion, and can also exacerbate pre-existing conditions. Further, extreme heat may discourage transit use altogether. Environmental exposure results from access and waiting. Transit users from areas with low residential density, limited high capacity roadways, and irregular street networks not located along direct paths between major activity centers, are likely to experience prolonged access and/or waiting times (Fraser and Chester 2017a)... The placement of transit stops impacts how long passengers are exposed to the environment, and, coupled with walking, may leave them at risk for negative heat-

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cont.

² Fourth Climate Change Assessment – LA Region pg 21

³ Fourth Climate Change Assessment – LA Region pg 22

⁴ Fourth Climate Change Assessment – LA Region pg 24

related outcomes. Walking times can vary significantly by age and physical condition. They can increase by up to 30% for the slowest age group (Bohannon and Williams Andrews 2011).⁵

Human health effects of extreme heat

Climate change poses a threat to public health. Heat causes more reported deaths per year on average in the United States than any other weather hazard (NOAA, 2017). In addition to the long-recognized health impacts of extreme heat, hospital admissions and emergency room visits, deaths and other adverse health outcomes have been associated with the warm season in California.

In 2006, dramatic increases in many heat-related illnesses and deaths were reported in California following a record-breaking heat wave. During the summer months, large urbanized areas can experience higher temperatures compared to nonurban outlying regions. “Urban heat islands” create health risks both because of the increased temperatures and because of the enhanced formation of air pollutants. Warming temperatures can amplify the transmission of mosquito-borne diseases (such as West Nile Virus) and make conditions more hospitable for invasive species that may transmit diseases.

While difficult to track using indicators, climate change can impact human well-being in many ways, including injuries and fatalities from extreme events, and respiratory stress from poor air quality (Mellilo et al., 2014).⁶

[Climate Change is a Health Emergency](#) – Coalition of health organizations

[Yale Climate Connections on Health](#)

Information on the health effects of climate change from the [Third National Climate Assessment’s Health Chapter](#).

Mental Health

People’s anxiety and distress about the implications of climate change are undermining mental health and well-being, according to a new federal report reviewing existing research on the topic. Issued by the U.S. Global Change Research Program, the report is the first time the federally mandated group has published an assessment solely focused on climate change and health.

The report is notable for another reason, too: It contains a chapter devoted to mental health and well-being, a significant step forward for an assessment of this type, says lead author Daniel Dodgen, PhD, a clinical psychologist at the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response. “I think people realize that if you’re going to talk about health, you have to talk about mental health,” he says.

The report also found that:

Exposure to climate- and weather-related natural disasters can result in mental health consequences such as anxiety, depression and post-traumatic stress disorder. A significant proportion of people affected by those events develop chronic psychological dysfunction.

⁵ Fourth Climate Change Assessment – LA Region pg 50

⁶ Indicators of Climate Change in California pg 161

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cont.

Some people are at higher risk for mental health consequences from weather-related disasters. Among them are children, pregnant and postpartum women, people with pre-existing mental illness, people who are economically disadvantaged, those who are homeless and first responders to the disaster.

Representations of climate change in the media and popular culture can also influence a person's stress response and mental well-being.

Climate change is threatening mental health -- American Psychological Association

1. Target populations of Concern
2. Outside workers (including County staff)
3. Children
4. Medically fragile, asthmatics, etc.
5. Pregnant women

Pregnancy effects According to research published in Nature Climate Change, birth rates were 5% higher on days when the temperature exceeded 90 degrees Fahrenheit. And, perhaps more concerning, births on those days occurred up to two weeks earlier — and 6.1 days earlier on average — than they would have otherwise.

“That’s enough to take somebody from what’s considered to be a pretty healthy pregnancy into a ‘we are somewhat worried’ pregnancy,” said Alan Barreca, a UCLA professor of environment and human health and lead author of the study.... Early delivery could cause long-term harm to the affected infants. Previous research has shown that early deliveries are linked to cognitive differences later in childhood, though it’s unclear whether this applies to heat-related early deliveries specifically. Another study found a direct link between mothers experiencing extreme heat during their third trimester of pregnancy and reduced income for their offspring once they reach adulthood. That might be due in part to earlier deliveries, too.

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Air Quality - Hotter future temperatures (Section 2.2) will act to increase surface ozone concentrations both due to chemistry producing more ozone and higher rates of biogenic emissions, while increases of water vapor also influence chemistry by increasing ozone production in already polluted areas (Steiner et al. 2006). It’s been estimated that ozone could increase up to 5-10 parts per billion (ppb) by 2050 in LA (Jacobson 2008; Pfister et al. 2014), and the number of days with ozone over 90 ppb could increase between 22-33 days (Abdullah Mahmud et al. 2008).⁷

Water

Drought

Anticipate a 64% decrease in snowpack by end of century⁸

By virtue of its Mediterranean climate and location along the periphery of the Pacific subtropical high, California experiences warm and dry summers with wet winters. During the wet winter months, which in Southern California typically begin in November and terminate in March, the bulk of precipitation arrives in a few, large storms (Dettinger et al. 2011; Oakley et al. 2018b). Should these storms not arrive due to

⁷ Fourth Climate Change Assessment – LA Region pg 20

⁸ Ventura_Climatechange_Review_Oakley.pdf slide 20

the presence of a persistent blocking ridge of high pressure in the North Pacific Ocean, precipitation deficits will be large (Cook et al. 2018). These deficits will be superimposed with climatologically high evaporative demands and may be exacerbated by above-normal winter season temperatures. Such dry years occur commonly in California, and multi-year periods of severe drought are not uncommon. However, evidence from various locations in California and throughout the southwestern United States indicates that extreme droughts lasting decades to several centuries have occurred numerous times since the end of the last ice age (e.g., Stine 1994; Benson et al. 2002; Woodhouse et al. 2010; Dingemans et al. 2014). The most recent extreme and persistent droughts occurred during the Medieval period, approximately 800-1000 years ago, with locally warm and dry conditions inferred from paleoproxy evidence provided by sedimentary cores taken from Zaca Lake in the San Rafael Mountains of Santa Barbara County (Dingemans et al. 2014). These droughts indicate that such extreme periods of aridity can occur under natural conditions (i.e., independent of human-driven changes in greenhouse gas concentrations) implying consideration of extended drought is prudent to sustainable water resource management, especially if projected warming increases drought risk Hatchett et al. 2015). Modeling studies of the Central Sierra Nevada have shown these droughts to be of comparable precipitation deficits to the most recent California Statewide drought that began in winter 2012 and ended in January of 2017 (Hatchett et al. 2015). The severity of the recent drought was exacerbated by anomalously warm temperatures driving a surplus in atmospheric evaporative demand and reducing the fraction of precipitation falling as snow in mountain regions (Williams et al. 2015b; Hatchett et al. 2017). The duration and severity of the recent drought varied statewide, with Ventura County being one of the first regions to go into drought conditions and one of the last to emerge (U.S. Drought Monitor 2019).⁹

Rain

4.2 Implications of Changes in Precipitation

- The number of dry days increases in the spring and fall (Fig. 4.6); however, there is little change projected in precipitation totals for these seasons (Fig. 4.2), implying some intensification of precipitation in these seasons, although these increases grow with time (Appendix A). Prolonged dry periods are associated with wildfire activity (e.g., Nauslar et al. 2018). With more dry days there may be potential for a longer wildfire season due to additional opportunities for persistence of dry conditions.
- Groundwater recharge is projected to decrease in the Southwest in a warming climate (Niraula et al. 2017) and may in part be related to increasing rainfall intensities (Dettinger and Earman 2007). Precipitation intensification at the seasonal to sub-daily timescales may have implications for the methods by which groundwater recharge occurs or how surface water is conveyed, captured, and stored.
- Roughly half of models project more frequent days exceeding historic 85th percentile daily precipitation totals (Fig. 4.7), resulting in more days with storm water management concerns if these outcomes are realized.
- Intensification of sub-daily precipitation (Figs. 4.8-16) raises concerns for increased flash flooding (Modrick and Georgakakos 2015), landslides, and debris flows (e.g., Oakley et al. 2018a) in a warming climate. In addition to the potential for increased threats to life and property, this may have impacts on infrastructure design and water resource management.

⁹ Ventura Climate 2019_Bookmarked.pdf pg 51-52

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cont.

- *Potential for storms with similar atmospheric characteristics to historic events to produce greater event total precipitation due to warming and ability for greater amounts of water vapor to be present in the atmosphere (Figs. 4.17-18; Prein et al. 2017).*

- *With uncertainty in annual precipitation changes, potential for increasing dry days, and increased temperatures (Section 3) and evapotranspiration (Section 5), diversified water supply portfolios will likely allow for more resilient water management (Sterle et al. 2019).¹⁰*

Atmospheric rivers (Ars) show a 20-50% increase in frequency of ARs along west coast and studies suggest fewer, but stronger and longer duration ARs in SoCal.¹¹ ARs can transport ten times the volume of the Mississippi River in water vapor and release a significant amount of the water when they rise over the coastal mountains.

Moreover, the peak season of atmospheric rivers may also lengthen, which could extend the flood-hazard season in California. The current generation of GCMs project a nearly 40% increase in precipitation during atmospheric river events over southern California by the late-21st century under RCP8.5. The number of atmospheric river events is also projected to increase in the future, possibly around a doubling of days by the end of the century (Warner et al. 2015; Hagos et al. 2016; Gao et al. 201512).

Short-duration, high intensity rainfall

Because of their ability to trigger flash floods and mass movements, short duration, high intensity precipitation events pose a major threat to life and property in Ventura County.¹³

Floods 1.5-2x more likely to exceed top 0.05% of historic hourly precipitation¹⁴.

If these rains occur after a significant fire then widespread flooding, mud flows and/or slope failure could result.

Evaporative Demand

Evapotranspiration represents the fluxes, or transfer, of moisture from open water and soil moisture (evaporation), and plant transpiration of water to the atmosphere under ambient conditions....

Historically, positive changes in ETO have been associated with increased water demand (Hobbins and Huntington 2017), increased wildfire activity (Abatzoglou and Williams 2016), and ecosystem impacts (Schwinning and Sala 2004). Thus, with projected ETO increases, the following impacts may be anticipated:

- *All seven models project county-wide increases in annual ETO, with minimum increases of at least 2 in. and maximum increases of approximately 6.5 in, which may impact water demand for crops (Hall et al. 2018), ecosystems, and municipal water use.*

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cont.

¹⁰ VenturaClimate2019_Bookmarked.pdf pg 31

¹¹ Ventura_Climatechange_Review_Oakley.pdf slide 19

¹² Fourth Climate Change Assessment – LA Region pg 14

¹³ VenturaClimate2019_Bookmarked.pdf pg 6

¹⁴ Ventura_Climate_Projections_Hatchett.pdf slide 35

- *The greater thirst of the atmosphere will deplete soil and plant moisture leading to faster rates of fuel moisture decline and longer periods of dry vegetation. This will increase the susceptibility of landscapes to wildfire and drought, as there is the potential for vegetation to dry more quickly and for longer periods of time.*
- *Reductions in soil moisture associated with increased ETO may reduce runoff production in some areas. The greatest increases in ETO (and thus reductions in soil moisture) are projected to occur in inland elevated terrain.¹⁵*

Although the greatest changes in absolute ETO occur during summer (Fig. 5.2c), percentage-wise, the largest increases (between 4–8%) are observed during fall in terms of spatial extent and magnitude (Fig. 5.3d). This will add stress to vegetation, decrease fuel moisture, and increase fire risk. Dry conditions extending into the late fall and early winter have a greater chance to coincide with Santa Ana winds. These conditions can lead to destructive wildfires such as the December 2017 Thomas Fire (Nauslar et al. 2018) and the November 2018 Woolsey Fire. Spring and summer show similar magnitudes of change and are consistent in the locations of change, though the core regions of greatest percentage increases shift westward from the Santa Clara River watershed (Fig. 5.3b) to the Ventura River watershed (Fig. 5.3c) during summer¹⁶.

Beyond Los Angeles: Imported Water Availability

The LA region is intimately connected to other Western U.S. watersheds. Water supply agencies rely on imported water for a majority of regional water supply (Gold et al 2015; Porse et al. 2017). Three main water sources supply metropolitan LA water agencies: the California Aqueduct as part of the State Water Project, the Colorado River Aqueduct that supplies southern California's allocation of Colorado River water, and the LA Aqueduct that imports water from the Owens Valley. Imported sources comprise a majority of water demands. For instance, in LA County, imported sources meet 55-60% of annual urban water demands, with the remaining amount supplied by groundwater (35-40%) and recycled water for nonpotable uses such as irrigation. From 2000-2010, these water agencies received an annual average of 810,000 acre-ft from MWD's imported sources, through in recent years averaging closer to 700,000 acre-ft. The entire American Southwest is expected to see increased drought and reduced availability of future water for agriculture and growth (MacDonald 2010). Such large-scale changes across a broad geography, which includes California, will pose unique risks for each of the massive infrastructure systems that import water to LA.

A substantial portion of Ventura County's water comes from the State Water Project through MWD.

The State Water Project of California brings water from the northern and western Sierra Nevada mountains south through the Sacramento-San Joaquin Delta to urban and agricultural users in southern California. Historically, the State Water Project contributed the majority of water supply to MWD's sources (53% from 1976-2010). Numerous studies have documented the likely shifts in precipitation regimes that will result from climate change in California, including reductions in snowpack, advances in the timing of runoff leading to reduced seasonal capture and storage capacity, and hotter coastal and

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cont.

¹⁵ VenturaClimate2019_Bookmarked.pdf pg 45-46

¹⁶ VenturaClimate2019_Bookmarked.pdf pg 48

inland temperatures increasing demand (Andersen et al. 2007; Brekke et al. 2004; N. L. Miller, Bashford, and Strem 2003; Tanaka et al. 2006; Vicuna and Dracup 2007; Dracup and Vicuna 2005). Additionally, the system of reservoirs will face increasing operational risks in managing more extreme rainfall events and preventing floods (Brekke et al. 2009). Applying such projections in planning can be challenging, given long-term uncertainties and sunk costs in current infrastructure (Groves, Yates, and Tebald 2008). Given these long-term likelihoods, the reliability of water deliveries from northern California will likely stir significant continued political debate and uncertainties, especially regarding future management alternatives for critical habitat and conveyance areas of the California Delta (Madani and Lund 2010).⁴⁷

CASE STUDY | MANAGING FOR SCARCITY TO WEATHER THE DROUGHT
Caryn Mandelbaum

The Inland Empire Utilities Agency (IEUA) water and energy optimization is a great example of climate resiliency in one of the hottest areas of southern California. The IEUA's service area covers 242 square miles where Riverside and San Bernardino Counties meet and where summer temperatures soar to over 110°F (43°C). The IEUA distributes imported and regionally-produced water and provides industrial/municipal wastewater collection and treatment services to more than 830,000 people throughout its nine member agencies.

How, you might ask, did they manage to have surplus water during the state's worst-ever drought? The short answer is they had been managing for scarcity for the past 20 years. Leadership had the foresight to establish a grant writing department that matched every dollar spent with grants for efficiency projects. They invested nearly \$500 million in developing regional water supplies, including state-of-the-art recycled water and groundwater recharge facilities, water use efficiency programs, and infrastructure improvements that avoided leaks.

They also developed close ties with their customers through public affairs staff and communications campaigns. This allowed the water agencies to enforce water budgets for each ratepayer. The budget provided a specific monthly allowance of water, depending on the number of occupants and outdoor footprint. The outdoor space was measured aeriaily to the square foot. They learned about how their consumption patterns measured up to prior use and that of their neighbors. When customers exceeded their budget, they were penalized and provided with tools for conservation. Armed with information and tools, ratepayers were able to better control their water consumption.

Remarkably, while the IEUA developed surplus water during California's historic drought, they were also becoming one of the most energy-efficient utilities in the state. In 2010, the agency installed the world's largest fuel cell system powered by renewable biogas and reduced energy consumption by nearly 25% upgrading operations. In 2017, they launched an advanced energy storage system designed by Tesla that integrates solar, wind, biogas, and grid resources to optimize renewable generation, reduce demand, and lower energy costs. Together with dynamically controlling consumption, IEUA is on track to go gridless by 2020 with almost no capital investment by the Agency.

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⁴⁷ Fourth Climate Change Assessment – LA Region pg 62-63

Earthquake/levee collapse threats to water supply

"The problem becomes almost intractable," he continued. "Keep in mind, one failure took \$100 million to fix, and now we're looking at scores of failures, so the water managers for the state are petrified of this. They are not sure they can ever get this system up and running, or at the very least, it's going to take multiple years. So this is pretty serious."

"The [State Water Project](#) is essential, both from the volume standpoint as it provides a lot of our water, and from a water quality perspective, as the water quality is quite good from it. As currently configured, the levees are highly vulnerable, not necessarily for San Andreas events but for the local events directly beneath. The repair time is uncertain; it's almost certainly very long. They don't even know how long it would take, and I think by any measure, it is not resilient, and this is the problem."

<https://mavensnotebook.com/2018/01/03/earthquake-resilience-southern-californias-water-distribution-systems/>

Making Water Conservation a California Way of Life

"Making Water Conservation a California Way of Life" (Governor's Executive Order B-37-16) replaces and increases water conservation requirements. AB 1668 (Friedman, 2018) and SB 606 (Hertzberg, 2018) implement various provisions of the Governor's Executive Order including the establishment of long-term urban water use efficiency standards, an indoor water budget of 55 gpcd which decrease over time, and outdoor allocations based on irrigated or irrigable landscaped area.

Based on industry recommendations the state set a provisional standard for indoor water use of 55 gallons per person, per day. This standard was based on a report produced by the Water Research Foundation. To ensure that this standard is reasonable the state will be funding a research study to determine an appropriate budget.

Also, the state is developing an outdoor water usage standard based on irrigated area and other factors like local climate conditions.

Based on these standards, all water districts will be given a maximum water budget for their agency. The budgets are being developed currently, with a draft budget expected January 2021, and the final budget at the end of 2021. While the state is developing the standards, we will be developing the tools and processes necessary to track and stay within the budget.

Proposals also include a requirement for each agency to develop a five-year drought plan, including conservation strategies necessary to achieve conservation levels that range from ten percent up to, and beyond, fifty percent reduction in water usage.

Each agency must document the steps to be taken in the event of a water conservation reduction of:

- 10%
- 20%
- 30%
- 40%
- 50%
- Beyond 50%

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cont.

How climate change could threaten our water supply

Published 11:00 a.m. PT July 8, 2017 |

Gov. Jerry Brown announces that California will host a global climate summit.

SACRAMENTO - When it comes to California and climate change, the predictions are staggering: coastal airports besieged by floodwaters, entire beaches disappearing as sea levels rise.

Another disturbing scenario is brewing inland, in the sleepy backwaters of the Sacramento-San Joaquin Delta. It's a threat to the Delta's ecosystem that could swallow up a significant portion of California's water supply.

Scientists from government and academia say rising sea levels caused by climate change will bring more saltwater into the Delta, the hub of California's water-delivery network. As a result, millions of gallons of fresh water will have to be flushed through the Delta, and out into the ocean, to keep salinity from inundating the massive pumping stations near Tracy. That will leave less water available for San Joaquin Valley farmers and the 19 million Southern Californians and Bay Area residents who depend on Delta water — eventually as much as 475,000 acre-feet of water each year, enough to fill Folsom Lake halfway, according to one study by the Public Policy Institute of California.

"With rising sea levels, with climate change, that creates additional pressure coming in from the ocean," said Michael Anderson, the state's climatologist, in a recent interview. "Sea level rise is going to become more of an influence."

It figures to become a pocketbook issue for practically any Californian who drinks water that runs through the Delta. A 2010 study by scientists from the University of California, Davis said rising seas, coupled with the inundation of some islands in the western Delta, will translate into higher costs for purifying water for human use. The additional cost could go as high as \$1 billion a year, "making the Delta less desirable as a conventional water source," the study said.

That cost doesn't include the \$17.1 billion Gov. Jerry Brown proposes to spend on the Delta tunnels, his controversial plan for reshaping the estuary's plumbing system.

Brown's administration is heralding the threat from climate change as one of the reasons for building the tunnels, which would increase water bills for urban Southern Californians and San Joaquin Valley farmers. An environmental impact statement released by state and federal officials in December said the tunnels are needed to prevent a significant cutback in water deliveries from the Delta.

Without the tunnels, the ability to pump water south "will be reduced under future climate and sea level rise conditions," state and federal officials wrote. "Delta exports would be reduced by as much as 25 percent by the end of the century."

Complicating the issue, climate scientists also agree a warmer climate will mean more rain and less snow. The Sierra snowpack serves as a giant reservoir that naturally releases water long after the rainy season ends. If more of California's precipitation falls as rain instead of snow, much of that water will flow to the ocean in winter and spring, while it's still raining. That will leave less water available in summer to satisfy human needs and to offset salinity in the Delta.

I88-2
cont.

Saltwater is already a problem at the Contra Costa Water District, which serves 500,000 residents in eastern and central Contra Costa County. Its location near the spot where water becomes brackish in the Delta puts Contra Costa on the front lines of the battle against salinity from the ocean. One of its four main intake pipes at the western edge of the Delta is precariously close to the point where water becomes too salty to drink without substantial treatment.

The agency has invested millions on intake pipes that are further and further away from the ocean. In 1997 it opened an intake along the Old River closer to the heart of the Delta. In 2010 it spent \$80 million building another intake a few miles east of the Old River facility. It considered building a desalination plant a few years ago, but the project, estimated to cost \$175 million, has been tabled.

Contra Costa's main weapon against salinity is Los Vaqueros Reservoir, a 19-year-old man-made lake. Though it's in the southwest Delta, it feeds off a pipeline from a San Joaquin River tributary from the east. Its purpose is to hold 160,000 acre-feet of fresh water that Contra Costa uses to dilute the supply that washes in from the Pacific.

"Things can get very salty for prolonged periods of time," said Maureen Martin, the agency's senior water resources specialist, during a recent tour of Los Vaqueros.

Contra Costa has spent nearly \$560 million on Los Vaqueros, and it isn't done yet. Working with 11 other Bay Area agencies, it's developing a plan to expand Los Vaqueros' capacity by two-thirds, an \$800 million project.

Martin said her agency doesn't consider sea-level rise "an imminent threat to Delta water quality." But the scientific projections are influencing Contra Costa's long-term planning on Los Vaqueros and other facilities.

Climate change "would probably cause the Delta to become saltier," she said. If climatologists are correct, the just-ended drought gave Delta residents a taste of things to come. In 2015, when the drought was at its worst and relatively little fresh water was trickling through the estuary, state officials worried about a surge of saltwater gushing in. The Department of Water Resources built a temporary rock barrier on the West False River, near the heart of the Delta, to hold back the salty ocean water.

The price was \$37 million, including the expense of removing the 150,000 tons of rocks when the rainy season started. State officials declared it a successful investment. The barrier helped the state avoid releasing 90,000 acre-feet of water from upstream reservoirs to flush out the salinity.

Over the long haul, state officials believe keeping the salt at bay will be crucial to the viability of the State Water Project and the federal government's Central Valley Project, the delivery networks that move much of Northern California's water through the Delta to the water agencies of Southern California and the San Joaquin Valley.

It's a task that could become increasingly difficult as sea levels rise. Not only will higher waters bring a generally higher volume of salt into the estuary, they will put more stress on the 1,100 miles of levees protecting Delta farms and homes. A levee breach could inundate the SWP and CVP pumping stations with saltwater, forcing them to shut down and reduce operations.

It represents one of the state's arguments for the tunnels project: By diverting a portion of the Sacramento River's flow at Courtland, at the northern fringe of the Delta, and piping it directly to the

I88-2
cont.

Tracy pumps, the state and federal water projects can sidestep much of the saltwater and keep pumping water more reliably.

“The location of the north Delta diversion facility is further inland, making it less vulnerable to salinity intrusion,” officials wrote in the environmental report last December.

Tunnels opponents aren’t swayed by that argument.

They don’t dispute that rising seas will bring more salt to the Delta. But they say the tunnels would actually worsen the problem and make Delta water dangerously salty for farming and drinking water needs. By pulling some of the fresh water out of the Sacramento at the upstream location, opponents fear it will increase the salt concentration in the remaining water flowing through the Delta. In that respect, they’re insulted that the threat from global warming is being used to justify the project.

“Whatever the truth might be about the extent or arrival of (climate) changes, the theory is being used as one more arrow shot at us,” said John Herrick, attorney for the South Delta Water Agency.

“There isn’t a shadow of a doubt in our minds that once they’re able to take water from up north, they’d doom us,” he added.

Distributed by Tribune Content Agency

I88-2
cont.

| | |
|-----------------------|-----------------------------------------|
| Letter I88 | John Brooks February 27, 2020 |
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- I88-1 This comment is introductory in nature and does not raise a significant environmental issue for which a response is required. The commenter refers to more detailed comments provided later in the letter; refer to response to comment I88-2, below. Also, the commenter refers to a letter submitted by Climate First: Replacing Oil & Gas. See responses to Letter O20.
- I88-2 The comment provides suggested edits to policies proposed in the 2040 General Plan and suggests additional topics that could be considered in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Also, refer to Master Response MR-1 for discussion of how the 2040 General Plan, its policies and programs, and mitigation measures address greenhouse gas emissions.

From: John Chambers <jechambers330@gmail.com>
Sent: Thursday, February 27, 2020 6:35 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

Letter
189

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

189-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

189-2

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

189-3

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.

189-4

2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies. I 189-5

3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant." I 189-6

4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable. I 189-7

5. The Plan does not adequately evaluate the impacts of increased competition for water in our community. I 189-8

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input. I 189-9

Sincerely,
John Chambers

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John Chambers

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| Letter I89 | John Chambers February 27, 2020 |
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This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I89-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I89-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I89-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I89-4 Refer to response to comment I9-5 regarding analysis of social and economic issues in the draft EIR.
- I89-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I89-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I89-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I89-8 Refer to response to comment I9-9 regarding water supply.
- I89-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: VC2040.org Comments <alan.brown@ventura.org >
Sent: Tuesday, February 18, 2020 12:21 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
I90**

You have a NEW Comment

Name:
John Cloonan
Contact Information:
johncloonan@yahoo.com

Comment On:
The responsibility of the Board decision to support the constituents not commerce.

Your Comment:
Sunday, February 16, 2020
Re: Draft General Plan and DEIR
Ventura County Board of Supervisors:

I am urging you to take meaningful action on the above documents coming before you that are schedule to have the public comments close this 27th. I90-1

Your physical and mental health and the health of your constituents as well as others in California, and indeed our global family are at stake when you make your decisions. Meaningful, measurable enforceable reductions to meet California’s climate goals are necessary.

California’s perspective, guidelines and procedures are antiquated as are our County’s own. It is necessary for you as individuals and as a Board, to take serious and bold measures to reel in the oil industry. Oil has had its day and stockholders have benefitted nicely. Ventura County and its citizens have benefitted from the oil industry, also. But the County, State, and Nation have suffered the health and climate consequences of lax regulation. Even if technology finds a “clean burn” solution - the end of oil can be expected. I90-2

The Los Angeles Sustainability Plan, aimed at meeting the goals of the Paris Climate Agreement, has clear and bold goals: “By eliminating fossil fuel production in the county, including drilling, production and refining, the county will protect its residents from harmful local pollution that inequitably burdens low-income communities and communities of color.” And this comes from the second largest oil-producing county in California. We need a similar goal for Ventura County. I90-3

I realize there are challenges you all face in this threading the needle legal world. It falls to you to do so for the sake of those with lives on the line in a polluted world. We will all ultimately benefit from measurable, enforceable reductions sufficient to meet California’s climate goals. It is clear to me, and I suspect to you in your personal quiet times of contemplation, that in the final analysis, there is an overriding benefit to the population of this county for the adoption of the strongest possible measures to insure that greenhouse gas emission are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

All the best.
John
John Cloonan
31 N Laurel St #1
Ventura, CA 93001-5066
johncloonan@yahoo.com

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| Letter I90 | John Cloonan February 18, 2020 |
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- I90-1 The comments about the need for enforceable reductions to meet California’s climate goals are noted. Refer to Master Response MR-1for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions.
- I90-2 Refer to Master Response MR-4, Section MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations) regarding the findings and conclusions related to phasing out the oil and gas industry. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopted a final 2040 General Plan.
- I90-3 This comment urges the County to adopt the strongest possible measures to reduce GHG emissions that are measurable and enforceable. Refer to Master Response MR-1for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions.

From: John Foster <jfoster@greenwood-associates.com>
Sent: Thursday, February 27, 2020 10:33 AM
To: General Plan Update
Subject: Comments, Archaeology

Letter
I91

Follow Up Flag: Follow up
Flag Status: Flagged

I would urge the County to include how the agency would establish a "preponderance of evidence that the resource is not archaeologically or culturally significant." See below. How would this be done and could it be appealed?

The number of archaeological sites in Ventura County is decreasing at a rapid rate and the definition of archaeological significance should be revised, "that all Native American archaeological sites, should be considered significant since the prehistoric identity of the Indigenous groups is tied solely to archaeological evidence." Loss of any sites would irrevocably result in loss of significant portions of their culture.

I91-1

Thank you for your consideration.

John M. Foster, RPA
 President, Greenwood and Associates

For the purpose of this draft EIR, implementation of the 2040 General Plan would have a significant impact on cultural, tribal cultural, or paleontological resources if it would:

Demolish or materially alter in an adverse manner those physical characteristics of an archaeological resource that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not archaeologically or culturally significant. Demolish or materially alter in an adverse manner those physical characteristics of an archaeological resource that convey its archaeological significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA. Demolish or materially alter in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources. Demolish or materially alter in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in a historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant. Cultural, Tribal Cultural, and Paleontological Resources Ventura County 4.5-6 2040 General Plan Draft Environmental Impact Report Demolish or materially alter in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA. Demolish or materially alter in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074. Result in the disturbance of human remains, including those interred outside of formal cemeteries. Result in grading and excavation of fossiliferous rock (identified as "Moderate to High" or "High" on Table D.2 of the ISAG) or increase access opportunities and unauthorized collection of fossil materials from valuable sites.

--
 John M. Foster
 President
 Greenwood and Associates

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| Letter I91 | John M Foster February 27, 2020 |
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This comment letter repeats a comment provided in Letter O30. The response below provides cross references to the portions of Letter O30 where responses to the same comments have already been provided.

I91-1 The comment inquires as to how the County would “establish a preponderance of evidence” that an archaeological or cultural resource is significant, asserts that archaeological sites in Ventura County are “decreasing at a rapid rate” and suggests a revised definition of “archaeological significance.” Refer to response to comment O30-1 for discussion of these issues.

Susan Curtis,

**Letter
I92**

The EIR admits that increased fuel loads directly impacts wildfire risk. The County writes in the EIR that "managing fuel through activities such as vegetation removal and controlled burns, the County and other agencies would be directly reducing the chance of wildfire as well as fuels that would feed wildfires..."

However, the County failed to analyze the impacts of policies COS-3.2, COS-1.15, Implementation Program COS-H and Implementation Program COS-C and others which increase fuel load and vegetation that "feed wildfires."

The County has not conducted a full and complete analysis on the General Plan policies that will increase wildfire risk. Furthermore, they have failed to offer any mitigation to reduce this risk.

This needs to be addressed, revised and recirculated.

I92-1

I92-2

Thank you for your time

Sincerely John Vanoni
Vanoni AG. Construction Inc.

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| Letter I92 | John Vanoni No date |
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- I92-1 The comment states that the draft EIR does not analyze the impacts of 2040 General Plan policies that would increase fuel load and vegetation, thus increasing wildfire fire risk. See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I92-2 For the reasons explained in response to comment O32-30, the draft EIR analysis of potential wildfire impacts is adequate and no revisions are warranted. Also, refer to Master Response MR-7 which explains in detail why recirculation of the draft EIR is not required.

From: JOSEPH LAMPARA <jlamp56@msn.com>
Sent: Wednesday, February 26, 2020 8:02 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

Letter
193

Dear Ms. Curtis:

CEQA guidelines require the Lead Agency to require FEASIBLE mitigation measures to lessen or avoid significant effects on the environment. The agency does not have unlimited authority to impose mitigation measures.

Per CEQA guidelines: Mitigation measures must be feasible. Feasibility analysis must include evidence and data that the additional costs or lost profitability are not sufficiently severe as to render "it impractical to proceed with the project." The Courts have determined that if the costs of the mitigation or alternative are so great that a reasonably prudent person would not proceed with the project, this mitigation measure is deemed unfeasible.

I93-1

Example:

Proposed Mitigation Measure AG-2 (Implementation Program AG-X): The County has failed to disclose and analyze the following:

- 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
- 2) The cost per acre to purchase each category of farmland;
- 3) The anticipated cost of establishing a conservation easement for each category of farmland;
- 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
- 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
- 6) any information that could constitute a "plan" for management of farmland in conservation easements;
- 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
- 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel;
- 9) An analysis of potential conflicts with existing ordinances and statutes (such as the Non-Coastal Zoning Ordinance) to ensure that the smallest possible required mitigation acreage required does not conflict with the County's minimum lot sizes.

I93-2

Respectfully,
Joseph Lampara

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| Letter I93 | Joseph Lampara February 26, 2020 |
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- I93-1 The commenter’s understanding of the feasibility requirements for mitigation are noted. The California Environmental Quality Act requires that an EIR “describe feasible measures which could minimize significant adverse impacts” (State CEQA Guidelines, § 15126.4(a)(1)). It is the obligation of the decision-making body of the lead agency that chooses to approve a project for which an EIR has been certified to determine if there are considerations that make the mitigation identified in the EIR infeasible. These factors can include economic feasibility.
- I93-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020
Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
1000 Victoria Avenue L#1740
Ventura, California 93009-1740

FEB 28 2020

Letter
I94

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I94-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was

I94-2

very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I94-2
cont.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I94-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I94-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I94-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation

I94-6

measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I94-6
cont.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I94-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I94-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I94-9

Sincerely,



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| Letter I94 | Josh Wells February 25, 2020 |
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This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I94-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I94-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I94-3 Refer to response to comment I4-3 regarding water availability and cost.
- I94-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I94-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I94-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I94-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I94-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I94-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: June Behar <beharjune@gmail.com>
Sent: Wednesday, February 26, 2020 1:17 PM
To: General Plan Update
Subject: Comments on General Plan Update

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| Letter I95 |
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I am a resident of Upper Ojai, unincorporated Ventura County, at 12048 Sulphur Mountain Road, Ojai CA 93023. Please add this material to the public comments on the VC2040 General Plan Update:

I95-1

Setting policy to deal with climate change in Ventura County requires expert scientific and technical input so that the Climate Action Plan (CAP) is meaningful and can achieve significant greenhouse gas emission reduction goals. VC should contract with an experienced consulting team as Los Angeles City and County have done in order to improve emissions reduction efforts here and meet state climate goals.

I95-2

Ventura’s General Plan Update should include the goal of eliminating fossil fuel production in the County, including drilling, production and refining, in order to reduce pollution. Phasing out production should include policy measures, strict enforcement of regulations, and the closing of loopholes that, for example, would allow trucking of oil and produced water if oil companies claim pipeline construction costs are too high. Maintain Policy COS-7.7 and Policy COS-7.8 as recommended by the VC Board of Supervisors.

I95-3

Climate Action Plan policies must be able to produce measurable and enforceable emission reductions instead of asking for voluntary actions from the County’s oil and gas operators. Revise this plan to ensure that greenhouse gas emissions and groundwater pollution will be curbed, starting immediately. In particular, maintain and defend the five-pound air emissions limit for the Ojai Valley, and force projects subject to CEQA review to fully evaluate TOTAL air emissions and require strict mitigation of local air quality impacts.

I95-4

In conclusion, it is critical that Ventura County adopt climate policies for the future based on expert study and experience; provide for strong and rigorous evaluation of potential adverse impacts in all projects, and enforce regulations without allowing loopholes. We longtime property owners and our families, the future generations of our population, deserve no less.

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| Letter I95 | June Behar February 26, 2020 |
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- I95-1 This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

- I95-2 This comment expresses an opinion about the Climate Action Plan that was prepared for the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer to Master Response MR-1 for a discussion of the scientific and technical basis of the climate planning in the 2040 General Plan, as well as the extraneous factors that limit reasonably feasible emissions reductions.

- I95-3 Refer to Master Response MR-4, Section MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations), Section MR-4.G Pipeline Requirements, and Section MR-4.F Flaring regarding the findings and conclusions related to phasing out the oil and gas industry, pipelines, and flaring

in oil and gas operations. The remainder of this comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopted a final 2040 General Plan.

I95-4

The comment requests measurable, enforceable Climate Action Plan policies, maintenance of the air emissions threshold of significance for the Ojai Valley, and evaluation and mitigation of the total air emissions of discretionary projects subject to the California Environmental Quality Act (CEQA). The comment also includes reference to enforcing policies without allowing loopholes.

Refer to Master Response MR-1 for discussion of the draft EIR's detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions.

As discussed in the draft EIR and explained further in response to comment O20-14, the comment refers to a threshold of significance for daily reactive organic gases and oxides of nitrogen emissions in the Ojai Valley which is referenced in the Ojai Valley Area Plan. This threshold, which applies to sources that are not permitted by the Ventura County Air Pollution Control District (VCAPCD), was added to VCAPCD's Air Quality Assessment Guidelines in 1989 and the reference to this threshold was thereafter added to the Ojai Valley Area Plan in 1995. The 2040 General Plan would not change this threshold.

Similarly, the 2040 General Plan would not affect the methodology for calculation of impacts to air quality at the project level. As explained in Section 4.3, "Air Quality," of the draft EIR (page 4.3-5), the County's Initial Study Assessment Guidelines state that the Air Quality Assessment Guidelines published by the VCAPCD should be used for determining thresholds of significance for air quality impacts. VCAPCD's guidance recommends the sample air quality checklist questions contained in Appendix G Section III(a-d) of the State CEQA Guidelines, with additional guidelines specific to Ventura County. Also refer to the response to comment O20-15 for discussion regarding the types of air emissions sources addressed by VCAPCD guidance and thresholds.

This comment expresses an opinion about the 2040 General Plan that is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

Jurgen Gramckow
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
196

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I96-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I96-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I96-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

196-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

196-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

196-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

196-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

196-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

196-9

Sincerely,



Jurgen Gramckow

| | |
|-----------------------|---------------------------------------------|
| Letter I96 | Jurgen Gramckow February 24, 2020 |
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This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I96-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I96-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I96-3 Refer to response to comment I4-3 regarding water availability and cost.
- I96-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I96-5 Refer to response to comment I4-5 regarding the commenter’s request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I96-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I96-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I96-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I96-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Karen Lindberg <k.lindberg5@verizon.net>
Sent: Monday, February 24, 2020 11:42 AM
To: General Plan Update
Subject: General plan /Environmental impact plan- comments

**Letter
I97**

Hi,

I am a citizen that is deeply concerned about the impact of climate change on our county. I have noticed we have many oil wells in our county. I think our action plan should be aggressive like the LA plan and the Paris agreement. We need to have a goal of eliminating fossil fuel production in the county, including drilling, production and refining.

I
I97-1

Also I agree with the following policies:

1.Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.

I
I97-2

2.Flaring should be allowed only in cases of emergency or for testing purposes.

I
I97-3

3.Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

I
I97-4

Thank you,

Karen Lindberg and John Tarascio, Newbury Park residents
1207 Knollwood Drive,
Newbury Park, CA 91320

| | |
|-----------------------|--------------------------------------------------------------|
| Letter I97 | Karen Lindberg and John Tarascio February 24, 2020 |
|-----------------------|--------------------------------------------------------------|

- I97-1 Refer to Master Response MR-4, Section MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations), regarding the findings and conclusions related to phasing out oil and gas operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I97-2 Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements,” regarding the findings and conclusions related to the conveyance of oil and produced water via pipelines instead of trucking. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I97-3 Refer to Master Response MR-4, Section MR-4.F, “Flaring,” regarding the findings and conclusions related to flaring in oil and gas operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I97-4 The comment states that the 2040 General Plan should be revised to achieve measurable, enforceable reductions in greenhouse gas emissions. Refer to Master Response MR-1 regarding the development of the 2040 General Plan policies and programs. No specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Saturday, February 1, 2020 9:44 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
198**

You have a NEW Comment

Name:
Karen Socher
Contact Information:
kssocher@hotmail.com
Comment On:
All of it
Your Comment:

I feel we should set policy driven by reducing climate change and the draft update does not provide enough emissions reduction.

We can and should do better.

The CAP addresses the consumption side by encouraging electric fuel vehicles and clean power for homes and businesses. It does not address the production side at all. Ventura County is the third largest oil and gas producing county in California. As such, we must do our part to reduce oil production through thoughtful, rigorous policy to phase out production.

This CAP will set the policies that will drive land use decisions and projects that affecting GHG emissions for the next 20 years. The planet depends on each county, municipality and country to do this right.

We need an expert team that will produce a plan that will meet the greenhouse gas emission reduction goals.

The General Plan needs to reduce emissions that harm people and the planet.

The Los Angeles Sustainability Plan, aimed at meeting the goals of the Paris Climate Agreement, has clear and bold goals: "By eliminating fossil fuel production in the county, including drilling, production and refining, the county will protect its residents from harmful local pollution that inequitably burdens low-income communities and communities of color." And this comes from the second largest oil-producing county in California. We need a similar goal for Ventura County. Another goal from the LA Plan: "Collaborate with DOGGR and unincorporated communities and affected cities to develop a sunset strategy for all oil and gas operations that prioritizes disadvantaged communities." Ventura County needs to do the same.

Climate change is caused by fossil fuel production and consumption.

I98-1
I98-2
I98-3

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|-----------------------|-----------------------------------------|
| Letter I98 | Karen Socher February 1, 2020 |
|-----------------------|-----------------------------------------|

- I98-1 The comment asserts that the policies in the 2040 General Plan do not achieve enough emissions reductions and suggests that it inappropriately excludes policies related to production of non-renewable resources. Refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions. No specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.
- I98-2 The comment suggests that phasing out the production of oil and gas in the unincorporated county is an appropriate policy for inclusion in the 2040 General Plan. This industry is a source of projected GHG emissions and eliminating extraction activities would be expected to have a favorable reduction in emissions. Refer to Master Response MR-4 for response to the comment requesting inclusion of a General Plan policy to phase out oil and gas production in the county.
- I98-3 The comment notes that the Los Angeles Sustainability Plan includes a goal to develop a sunset strategy for oil and gas extraction and suggests that the County consider a similar strategy. Refer to response to comment I98-2, above. This comment also expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: Kari Aist <info@email.actionnetwork.org>
Sent: Thursday, February 27, 2020 4:20 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!



CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

I
I99-1

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I
I99-2

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I
I99-3

I want an EIR that covers major climate impacts via a systematic plan.

Thank you for listening to the people and doing what's right for the health of your constituents, the ones you represent.

I
I99-4

Remember this: we ALL live downstream.

Thank you—

Kari Aist
Mom4mykids@gmail.com
8892 Tacoma St
Ventura, California 93004

| | |
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| Letter I99 | Kari Aist February 27, 2020 |
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This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I99-1 Refer to response to comment I3-1 regarding the commenter’s concerns about climate change and the draft EIR analysis.
- I99-2 Refer to response to comment I3-2 regarding the use of the most current climate change science in the draft EIR analysis.
- I99-3 Refer to response to comment I3-3 regarding suggested mitigation measures.
- I99-4 This comment is a concluding statement and does not raise a significant environmental issue for which a response is required.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Monday, January 27, 2020 10:24 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Letter
I100

You have a NEW Comment

Name:
Katharine S Simmons
Contact Information:
kay56094@gmail.com
Comment On:
New Draft Environmental Impact Report
Your Comment:

According to a recent study of data by the Washington Post Ventura County ranks as the fastest-warming county in the Lower 48 states.

It is critical that Ventura County gets its climate policies RIGHT in the General Plan Update. The draft plan as currently written fails to meet requirements for streamlined CEQA review.

Please take the following actions:

- 1. Buffers should be increased from the currently 1,500 feet to 2,500 feet I I100-2
- 2. Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking I I100-3
- 3. Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes. I I100-4
- 4. Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions I I100-5
- 5. The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents

Thank you for your time and attention to this most important issue.
 Katharine Simmons

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|------------------------------|-------------------------------------------------|
| Letter I100 | Katharine S Simmons February 27, 2020 |
|------------------------------|-------------------------------------------------|

I100-1 The comment states that, as written, the 2040 General Plan does not meet requirements for streamlining and tiering subsequent California Environmental Quality Act (CEQA) review of project-level greenhouse gas emissions pursuant to State CEQA Guidelines Section 15183.5. This is accurate and reflected in the draft EIR. There is no requirement that the 2040 General Plan meet CEQA requirements for streamlined review. Page 4.8-46 of the draft EIR recommends Mitigation Measure GHG-3, which would remove the CEQA streamlining provision proposed in Implementation Program COS-EE from the 2040 General Plan and specify that the potential greenhouse gas (GHG) emissions impacts of future, discretionary projects be reviewed in accordance with the most recent adopted version of the ISAG at the time of project-level environmental review.

Mitigation Measure GHG-3 could result in additional GHG emission reductions if improved technologies, design features, or the like that are infeasible or unavailable today become available and are included in future development or required as part of future project-level reviews. To the extent this were to occur, this mitigation measure would improve progress toward meeting the 2030 and post-2030 GHG reduction targets. However, it would be speculative to determine at this time whether and how Mitigation Measure GHG-3 would affect future GHG emissions in the county. Because climate change impacts would remain significant and unavoidable following mitigation, the County has determined that CEQA streamlining pursuant to State CEQA Guidelines, Section 15183.5 for GHG emissions was not an appropriate 2040 General Plan program.

- I100-2 Refer to Master Response MR-4, Section MR-4.H, “Buffers (Setbacks),” regarding the findings and conclusions related to buffer (setback) distance.

- I100-3 Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements,” regarding the findings and conclusions related to the conveyance of oil and produced water. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- I100-4 Refer to Master Response MR-4, Section MR-4.F, “Flaring,” regarding the findings and conclusions related to flaring in oil and gas operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- I100-5 The comment states that the 2040 General Plan should be revised to achieve measurable, enforceable reductions in GHG emissions. The 2040 General Plan includes measurable targets for GHG emission reductions for 2030, 2040, and 2050 that are aligned with the State’s legislative GHG reduction targets and other reduction goals (see page 4.8-6 of the draft EIR). Refer to Master Response MR-1 for additional detail. This comment expresses disapproval of the 2040 General Plan and is not related to the adequacy of the draft EIR. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

Also, the comment states that the County should adopt “the strongest possible measures to ensure that greenhouse gas emissions are curbed.” Refer to Master Response MR-1 for additional detail regarding the development of the GHG inventory, policies, and programs of the 2040 General Plan.

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Letter
I101

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I101-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I101-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I101-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually

I101-4

impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I101-4
cont.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I101-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I101-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I101-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I101-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I101-9

Sincerely,

Richard R. Gayle

4465 West 4th Street
Los Angeles, CA 90020

| | |
|------------------------|------------------------------------------------|
| Letter I101 | Katherine R Euylee February 25, 2020 |
|------------------------|------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I101-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I101-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I101-3 Refer to response to comment I4-3 regarding water availability and cost.
- I101-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I101-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I101-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I101-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I101-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I101-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

February 27, 2020

Susan Curtis
Manager, General Plan Update Section
VCRMA, Planning Division
800 S. Victoria Avenue
Ventura, CA
E-mail: GeneralPlanUpdate@ventura.org
Susan.Curtis@ventura.org

Letter
I102

Re: County of Ventura 2040 General Plan Update and DEIR

Dear Susan,

I am writing to express my support of comments on the 2040 General Plan Update and DEIR submitted by Dr. Steven Colomé and also those comments submitted by Climate First: Replacing Oil & Gas (CFROG). As I recall, when the County conducted an early outreach effort on the General Plan Update, results came back showing a very high level of residents' concern about climate change. Since then, we've had extraordinary and damaging wildfires including the Thomas Fire and the Woolsey Fire; we've also had the County's commissioned report on sea level rise finding the County is highly susceptible both to the impending sea level rise as well as storm surge flooding. Yet, the County still cannot bring itself to adequately address and meet greenhouse gas (GHG) reduction goals of the State or even the County's own stated General Plan goals.

I102

Ventura County oil and gas production is one of the highest in the state. So, this sector – oil and gas development, including existing operations – is where we must plan and execute a huge reduction of GHG emissions over the next 20 years. The problems with the baseline inventory of GHG emissions, emission forecasting, lack of effective, meaningful policies, inadequate mitigations, and failure to produce an effective CAP (Climate Action Plan) are laid out in the comments from Dr. Colomé and CFROG.

The County is failing to take hold of the power of a General Plan and use it - to implement necessary and important change – to reduce our GHG emissions. In particular, the County must incorporate mitigation measures to: 1) prohibit all new oil well drilling, 2) prohibit all flaring, and 3) phase out all non-conforming/antiquated facilities and operations through amortization.

I102-2

Please remember and embrace the residents' concern about climate change at the outset of the General Plan process and show leadership in this time of climate crises. You must act in the best interests of Ventura County residents.

I102-3

Sincerely,
Kathryn Lottes

| | |
|------------------------|------------------------------------------|
| Letter I102 | Kathy Lottes February 27, 2020 |
|------------------------|------------------------------------------|

- I102-1 The commenter refers to letters submitted by Dr. Steven Colome and Climate First: Replacing Oil & Gas. See responses to Letters I198 and O20, respectively. The commenter's support of the comments in these letters is noted. Refer to response to comment I21-1 and Master Response MR-1 for discussion of the greenhouse gas (GHG) inventory, projections, policies and implementation programs that reduce GHG emissions, the seven feasible mitigation measures identified in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions, and the overall adequacy of the climate policies in the 2040 General Plan.
- I102-2 Refer to Master Response MR-4, Sections MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations), MR-4.F Flaring, MR-4.B Antiquated Permits and Takings and MR-4.A County's Authority to Regulate Oil and Gas Development, regarding the findings and conclusions related to stopping the issuances of permits for new wells, flaring in oil and gas operations, antiquated permits and takings, and the County's authority to regulate oil and gas development.
- I102-3 The commenter's concerns regarding climate change are noted. This comment is a concluding statement and does not raise a significant environmental issue for which a response is required.

From: Keelan Dann <info@email.actionnetwork.org>
Sent: Wednesday, February 26, 2020 5:44 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts! Let's create a more resilient plan.

Letter
1103

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Thank you for your care in ushering our community into a more resilient future. It must take great effort some days in this time of such rapid change where in your profession maybe you are facing issues your predecessors never had to consider. As a young adult in this world, I can relate. My peers and I are used to frequent climate anxiety dreams, pollution in our lungs, each other to show up, adjust our plans, and figure out how to be a resilient community. It takes attention but we see the capacity that you and we have to create a more thriving plan together.

I1103-1

As an ecologist and environmental educator I have seen first hand how the climate crisis is effecting our ecosystems, homes, neighbors, and youths. We are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I1103-2

Additionally, there are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I1103-3

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Keelan Dann
keelan_dann@yahoo.com

Ventura, California 93003

| | |
|------------------------|-----------------------------------------|
| Letter I103 | Keelan Dann February 26, 2020 |
|------------------------|-----------------------------------------|

This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I103-1 Refer to response to comment I3-1 regarding the commenter's concerns about climate change and the draft EIR analysis
- I103-2 Refer to response to comment I3-2 regarding the use of the most current climate change science in the draft EIR analysis.
- I103-3 Refer to response to comment I3-3 regarding suggested mitigation measures.

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Letter
I104

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I104-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I104-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I104-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually

I104-4

impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I104-4
cont.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I104-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I104-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I104-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I104-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I104-9

Sincerely,

| | |
|------------------------|------------------------------------------|
| Letter I104 | Keith Barrow February 25, 2020 |
|------------------------|------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I104-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I104-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I104-3 Refer to response to comment I4-3 regarding water availability and cost.
- I104-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I104-5 Refer to response to comment I4-5 regarding the commenter’s request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I104-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I104-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I104-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I104-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 South Victoria Avenue, L#1740
 Ventura, CA 93009-1740

Letter
I105

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

I105-1

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR. Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

I105-2

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I105-3

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I105-4

I appreciate your consideration.

1202897.1

| | |
|--------------------|--------------------------------------------|
| Letter I105 | Kelley Raymond February 27, 2020 |
|--------------------|--------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I105-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.

- I105-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.

- I105-3 Refer to response to comment I8-4 and Master Response MR-2 regarding the 2040 General Plan’s consistency with the Save Open Space and Agricultural Resources initiative.

- I105-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

Kevin McAtee
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
I106

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I106-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I106-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I106-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I1106-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I1106-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I1106-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I1106-7

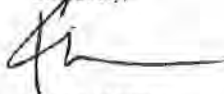
In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I1106-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I1106-9

Sincerely,



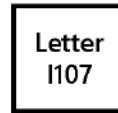
Kevin McAtee

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| Letter I106 | Kevin McAtee February 24, 2020 |
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This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I106-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I106-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I106-3 Refer to response to comment I4-3 regarding water availability and cost.
- I106-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I106-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I106-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I106-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I106-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I106-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Tuesday, January 28, 2020 8:38 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan



You have a NEW Comment

Name:
 Kristen Kessler
Contact Information:
 kess4652@gmail.com
Comment On:
 Gen. Plan Update and DEIR
Your Comment:

- The General Plan Update does not set strong enough goals to reduce GHG emissions, and should follow the example of the L.A. Sustainability Plan. I I107-1
- The DEIR should allow oil and water to be transported by pipelines instead of diesel trucks to reduce air pollution in vulnerable communities. I I107-2
- Flaring should no longer be allowed, except in emergencies or testing. I I107-3
- Oil and gas facilities in the county listed as "superemitters" should no longer be allowed to operate. I I107-4
- Ventura County is the fastest warming county in the lower 48 states. The provisions in the draft plan are inadequate to address this warming trend. I I107-5

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| Letter I107 | Kristen Kessler January 28, 2020 |
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- I107-1 The comment states that the 2040 General Plan does not set strong enough goals to reduce greenhouse gas emissions (GHG) and should follow the example of the Los Angeles Sustainability Plan. Refer to Master Response MR-1 for additional information pertaining to the development of the GHG inventory, GHG reduction targets, policies, and programs of the 2040 General Plan. This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I107-2 Refer to Master Response MR-4, Section MR-4.G Pipeline Requirements, regarding the findings and conclusions related to the conveyance of oil and produced water from oil and gas operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I107-3 Refer to Master Response MR-4, Section MR-4.F Flaring, regarding the findings and conclusions related to flaring in oil and gas operations.

I107-4 Refer to Master Response MR-4, MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations), regarding the findings and conclusions related phasing out oil and gas operations.

I107-5 This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer to Master Response MR-1 for an explanation of how the policies and programs in the 2040 General Plan address the GHG emissions that contribute to global warming.

From: Kristen Kessler <kess4652@gmail.com>
Sent: Wednesday, February 26, 2020 10:57 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan and EIR

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| Letter I108 |
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Dear Ms. Curtis,

I am writing to express my concerns about the current draft of the General Plan and the Environmental Impact Report. The plan has some laudable goals, but they are aspirational and unenforceable.

I I108-1

We should have a sunset plan for oil and gas production. Oil should be transported by pipeline instead of trucks. Flaring should be prohibited, except for testing purposes.

I I108-2

We need to invest in green buildings, green jobs, and renewable energy. The time for business as usual is over. Our county is the fastest warming county in the lower forty-eight states. We need a strong general plan that addresses the climate crisis we face.

I I108-3

Thank you,
 Kristen Kessler
 Ventura

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| Letter I108 | Kristen Kessler February 26, 2020 |
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I108-1 This comment regarding the adequacy of the 2040 General Plan and draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

I108-2 Refer to Master Response MR-4, Sections MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations), MR-4.G Pipeline Requirements, MR-4.F Flaring, and MR-4.A County’s Authority to Regulate Oil and Gas Development, regarding the findings and conclusions related to phasing out oil and gas production, conveyance of oil and produced water from oil and gas operations, flaring in oil and gas operations, and the County’s authority to regulate oil and gas development.

I108-3 This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

Note that the 2040 General Plan, as proposed, includes policies and programs that promote green building practices (e.g., Policy COS-8.7 and Program R, Policy Haz-11.7) and renewable energy (e.g., Policies COS-8.1, COS-8.4, COS-8.5, COS-8.8, AG-5.2, AG-5.3, EV-4.4). Also, refer to Master Response MR-1 for additional information pertaining to the development of the greenhouse gas inventory, policies, and programs of the 2040 General Plan.

From: Kristin Viemeister <viemeister@sbcglobal.net>
Sent: Thursday, February 27, 2020 5:02 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: County buildout study

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| Letter I109 |
|------------------------------|

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

I109-1

Kristin Viemeister

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| Letter I109 | Kristin Viemeister February 27, 2020 |
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This comment letter repeats the same comments provided in Letter I6. The responses below provide cross references to the portions of Letter I6 where responses to the same comments have already been provided.

I109-1 Refer to response to comment I6-1, which discusses setbacks from freeways and high traffic roads as a way to reduce adverse air quality effects for sensitive receptors, and the feasibility of Mitigation Measure AQ-3 (Policy HAZ-10.X).

From: Lara Shellenbarger <info@email.actionnetwork.org>
Sent: Monday, February 24, 2020 4:59 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

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| Letter I110 |
|------------------------|

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate change is THE existential threat, not just to the United States, but to the human race. Every level of government must take this into account and do what is necessary to stop the emission of carbon dioxide and methane. And to encourage the use of energy sources like solar, wind, and nuclear power. Specifically, it will be difficult, if not impossible, to reach a zero carbon economy without using nuclear power in a transition phase. There are modern nuclear powerplant designs that are much safer than coal and oil fired power plants. Government should encourage their deployment.

I110-1

Brent Meeker

Lara Shellenbarger
meeke.lara@gmail.com
 104 Catalina Dr
 Camarillo, California 93010

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| Letter I110 | Lara Shellenbarger and Brent Meeker February 24, 2020 |
|------------------------|-----------------------------------------------------------------|

I110-1 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

Laura K. McAvoy
40 Encino Avenue
Camarillo, CA 93010

Letter
I111

February 25, 2020

Ventura County Board of Supervisors
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

I'm writing to you as a resident of the County concerned about the viability of the oil and gas industry in Ventura County.

I111-1

The 2040 General Plan Draft EIR fails to give proper analysis to oil and gas mineral resources.

Neither the EIR nor the Background report provide a complete and thorough description of the existing, current regulatory setting that oversees the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

I111-2

The EIR fails to actually analyze for direct and indirect impacts to mineral resource zones that will occur as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses OVER known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. These incompatible land uses will significantly impact future mineral resource production and must be evaluated and mitigated for in the EIR.

I111-3

The EIR never addresses indirect impacts to mineral resource development that will occur under the 2040 General Plan. As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to produce mineral resources in the County.

The Draft EIR is lacks critical analysis and must be corrected and recirculated to ensure a fair process for Ventura County residents.

I111-4

Thank you,



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|------------------------|---------------------------------------------|
| Letter I111 | Laura K. McAvoy February 25, 2020 |
|------------------------|---------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I61. The responses below provide cross references to the portions of Letter I61 where responses to the same comments have already been provided.

- I111-1 Refer to response to comment I61-1 regarding concerns related to the oil and gas industry and the draft EIR’s analysis of oil and gas mineral resources.
- I111-2 Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR. The commenter indicates that the draft EIR and Background Report do not provide a complete description of the existing and current regulatory setting for production of mineral resources. The Background Report Section 8.4, “Mineral Resources,” 8.5, “Energy Resources,” and Section 10.2 “Legal and Regulatory Framework for Water Management (Class II Underground Injection Control Program),” provide relevant regulatory information necessary for understanding and evaluating the impacts of the 2040 General Plan on petroleum resources. Additionally, the draft EIR Mineral and Petroleum Resources Section 4.12.1, Background Report Setting Updates, includes additional information laws and regulations that pertain to petroleum development. This includes federal laws and regulations related to gas pipelines, state laws and regulations related to the California Pipeline Safety Act of 1981, Ventura County Air Pollution Control District (VCAPCD) Rule No. 71.1 – Crude Oil Production and Separation and Rule No. 54 – Sulfur Compounds, VCAPCD Primary (Non-Emergency) Flares, VCAPCD Emergency Flares, and VCAPCD Permitted Flare Variances, and Non-Coastal and Coastal Zoning Ordinances.
- In the response to this comment, and based on the April 9, 2020 comment letter from the California Geologic Energy Management Division (CalGEM) describing its current regulatory program, the regulatory framework section has been augmented. The enhanced discussion of regulatory framework would not alter the findings or analysis in the EIR. These augments to the regulatory setting for Section 4.12 are provided in final EIR Chapter 3, “Revisions to the Draft EIR.”
- I111-3 Refer to response to comment O5-90 regarding the interplay between the land use designations in the 2040 General Plan and mineral resource zones and Master Response MR-2 for a detailed discussion of how buildout was analyzed in the draft EIR. Response to comment O9-8 provides a discussion of the potential for indirect impacts due to incompatible land uses.
- I111-4 Refer to response to comment I61-4 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Thursday, February 20, 2020 10:36 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
I112**

You have a NEW Comment

Name:

Leah Kolt

Contact Information:

Dendub22@gmail.com

Comment On:

draft plan

Your Comment:

The proposed 1500 ft minimum between oil & gas facilities, homes and schools is way too close for comfort and safety . At least a mile is needed to outdistance the emissions.

I112-1

| | |
|------------------------|---------------------------------------|
| Letter I112 | Leah Kolt February 20, 2020 |
|------------------------|---------------------------------------|

I112-1 Refer to Master Response MR-4, Section MR-4.H Buffers (Setbacks), regarding the findings and conclusions related to buffers (setbacks) related to oil and gas operations.

Attn: Susan Curtis

Re: Comments on VC 2040, GPU DEIR

2-27-2020

**Letter
I113**

- Program H: County Tree Planting Program. The County shall plant at least one thousand trees annually on County property.

Comment: Priority should be given to planting appropriate native tree species, for their habitat value. County Administration and Court site at Victoria provides opportunity to create public awareness and education through the planting of native trees (and other native plants) with explanatory signage.

I113-1

- Policy-- Countywide Tree Planting: The County shall establish and support a countywide target for the County, cities in Ventura County, agencies, organizations and citizens to plant two million trees throughout the county by 2040.

Comment: County should encourage the planting of appropriate native trees.

- Air Quality Impacts:

Comment: Need for best management practices for dust control and/or mitigation along the dirt shoulders of some agricultural fields; particularly when such dust contains remnants of chemicals from fertilizers, herbicides, pesticides.

I113-2

- Water Quality impacts:

Comment: Need for best management practices and/or mitigation to control rain and or run-off, to prevent dirt from agricultural fields and/or shoulders of roadways, from washing into culverts/barrancas/streams/rivers/coastal waters/ocean, particularly when such dust contains remnants of chemicals from fertilizers, herbicides, pesticides.

I113-3

Leslie Purcell

lesliepurcell@gmail.com

| | |
|------------------------|--------------------------------------------|
| Letter I113 | Leslie Purcell February 27, 2020 |
|------------------------|--------------------------------------------|

- I113-1 The comment addresses the draft 2040 General Plan (specifically, programs and policies regarding tree planting) and is not related to the adequacy of the draft EIR. Additionally, the comment suggests additional topics that could be considered in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I113-2 The comment generally suggests best management practices for dust control along the dirt shoulders of agricultural fields and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Section 4.3, “Air Quality,” in the draft EIR includes multiple policies and programs to reduce air quality impacts, including Mitigation Measure AQ-2b, which would establish fugitive dust best management practices for new discretionary development. Fugitive dust generated by existing agricultural fields is not an environmental effect of the 2040 General Plan.
- I113-3 The comment suggests best management practices to control runoff from agricultural fields and roadway shoulders but does not provide evidence linking benefits from these actions to impacts from implementation of the 2040 General Plan identified in the draft EIR. Section 4.10, “Hydrology and Water Quality,” in the draft EIR does not identify any significant environmental impacts. The draft EIR analyzes water quality impacts to surface water in Impact 4.10-8 and impacts to stormwater quality in Impact 4.10-9. These impact analysis discussions describe the role of existing regulations and permits in addressing the quantity of quality of stormwater and non-stormwater runoff associated with future development under the 2040 General Plan. Runoff from existing agricultural fields and roadways is not an environmental effect of the 2040 General Plan. For this reason, no further response is provided. Agricultural land use, including existing regulation of pesticide applications and erosion of agricultural soils, is discussed in Section 4.2, “Agriculture and Forestry Resources,” of the draft EIR.

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 8:05 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:

Linda Harmon

Contact Information:

Lhart413@roadrunner.com

Comment On:

I think both are involved in overseeing environmental issues.

Your Comment:

Please look to the continued work of CFROG and follow their recommendations concerning the environment and management of oil and gas extraction. We need to stop encouraging the fossil fuel industry to exploit the area for profit while endangering local, national and worldwide concerns.

| | |
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| Letter I114 | Linda Harmon February 26, 2020 |
|------------------------|------------------------------------------|

I114-1 The commenter refers to a letter submitted by Climate First: Replacing Oil & Gas. See responses to Letter O20.

From: lisa eklund <eklundproperties@gmail.com>
Sent: Tuesday, February 25, 2020 4:50 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

| |
|------------------------|
| Letter I115 |
|------------------------|

The DEIR does not account for or include reliable information about some of the key challenges facing Ventura County, primarily housing. The Ventura County regional economy is struggling. According to the Ventura County Civic Alliance 2019 State of the Region Report, the region continues to struggle with "anemic" economic growth. The report's author, Tony Biasotti, told reporters that "the fact remains that Ventura County's economy is either in recession or very close to recession the last few years." According to the Center for Economic Research and Forecasting at California Lutheran University, Ventura County's economic output shrank in 2016 and 2017 when adjusted for inflation. The region's economic output was projected to contract again in 2018.

I115-1

The DEIR fails to recognize or address the serious affordability crisis Ventura County residents face. According to Census Bureau data and Ventura County Star reporting, more than 35,000 people left the region between 2013 and 2017, citing affordability concerns.

These issues need to be addressed when considering our options to create plans for our future. As it is now, this document fails to properly and accurately address these issues and should therefore be corrected to include this information for recirculation.

I115-2

Thank you,
 Lisa, Eklund

| | |
|------------------------|-----------------------------------------|
| Letter I115 | Lisa Eklund February 25, 2020 |
|------------------------|-----------------------------------------|

- I115-1 The comment states that the draft EIR does not recognize or address the affordability crisis residents face and the County's struggling economy. However, EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR.

- I115-2 As described in response to comment I115-1, above, the draft EIR properly excludes discussion of economic issues. Regarding the comment that the draft EIR should be corrected and recirculated, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Lisa Woodburn <LisaW@JDSCIVIL.COM>
Sent: Wednesday, February 26, 2020 12:40 PM
To: General Plan Update
Subject: Comments on County GP Update Draft EIR

**Letter
I116**

Follow Up Flag: Follow up
Flag Status: Flagged

I would like to offer the following comments:

Mitigation Measure AG-2: New Implementation Program AG-X: Establish an Agricultural Conservation Easement: This Mitigation Measure is unfeasible and unnecessary and unforeseen consequences of implementing this mitigation measure have not been identified. There are many existing programs and policies in Ventura County that prohibits the conversion of agricultural land for urban development. SOAR, the LCA Contract program, the Initial Study Assessment Guidelines and Guidelines for Orderly Development are all programs that protect against the loss of agricultural land in Ventura County. To add a policy that would require the purchasing of offsite farmland on a 2:1 ratio (acres preserved : acres converted) through the establishment of an offsite agricultural conservation easement for all discretionary development over a certain size is unfeasible and unnecessary.

I am currently involved in a farmworker housing project that would be subject to this mitigation measure policy. In order to develop 360 units of much needed farmworker housing in the County, we are impacting just over 18 acres of prime farmland. We will be processing an EIR because of the significant loss of ag soils as identified in the County’s Initial Study Assessment Guidelines and will be requesting that the Board of Supervisors adopts overriding considerations due to the dire need for farmworker housing in Ventura County. If mitigation measure AG-2 was in effect, this project would not be moving forward due to the extreme financial burden it would place on the non-profit housing developer of this project. I cannot imagine any farmworker housing complex project being able to absorb the financial burden associated with mitigation measure AG-2.

The other issue I have with this mitigation measure is that it is applicable to all land use designations in the County with an important farmland inventory classification. There could be land in the County located in an urban area but is currently farmed and is therefore classified as important farmland inventory. Therefore it could be designated Urban and zoned for some type of urban development, but because it has not developed yet, that property owner will be burdened with this mitigation measure.

In short, I urge the Board of Supervisors to not adopt mitigation measure AG-X. It will lead to impacts on important development needed to keep agriculture viable in Ventura County such as Farmworker Housing Complexes and Preliminary Packing Facilities.

Sincerely,

Lisa Woodburn, Planning Manager
Jensen Design & Survey, Inc.

M 805.654.6977 | D 805.633.2251 | F 805.633.2351
 1672 Donlon St. Ventura, CA 93003
lisaw@jds civil.com | www.jds civil.com

I116-1

| | |
|------------------------|-------------------------------------------|
| Letter I116 | Lisa Woodburn February 26, 2020 |
|------------------------|-------------------------------------------|

I116-1 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.

FEB 28 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org
February 25, 2020
Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Letter
I117

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I117-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value

I117-2

and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo.

These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

1117-2
cont.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

1117-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

1117-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

1117-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I117-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I117-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I117-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I117-9

Sincerely,



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|------------------------|----------------------------------------|
| Letter I117 | Lyle Neely February 25, 2020 |
|------------------------|----------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I117-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I117-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I117-3 Refer to response to comment I4-3 regarding water availability and cost.
- I117-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I117-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I117-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I117-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I117-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I117-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

REC'D FEB 27 2020

REC'D FEB 9 2020

Letter
I118

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I am a part of the McLoughlin Family. We have been farming in Ventura County for approximately 150 years. We currently own 300 acres of agricultural property off of Olivas Park Road in the County of Ventura near the Ventura Marina on Harbor Rd, in proximity to the City of Ventura.

I118-1

The McLoughlin family has farmed this land and other parcels for generations going back to 1863. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it's not even mentioned as a possibility in the DEIR.

I118-2

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for widening, a stretch of roadway that borders the entire eastern portion of our farmland property. While the impact on our farming operation and financial losses due to property are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no "substantive" change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I118-3

{202897.1}

Given the length and breadth of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I118-4

I appreciate your consideration.



| | |
|--------------------|------------------------------------|
| Letter I118 | Marcia Czarnecki No date |
|--------------------|------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I118-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.
- I118-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.
- I118-3 Refer to Master Response MR-2 regarding the 2040 General Plan's consistency with the Save Open Space and Agricultural Resources initiative.
- I118-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Michael/Maggie McMonigle <mmmcmonigle@gmail.com>
Sent: Thursday, February 27, 2020 10:24 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Don and Bev de Nicola <de.nicola@cox.net>
Subject: Comments on General Plan/EIR

Letter
I119

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

I119-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, "unlike the Preble area, services are not readily available to the Olivas lands." This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is "not included in the City's sanitation district because of problems with water pressure." This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district's pipelines actually traverse our property.

I119-2

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I119-3

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.

I119-4

2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.

I119-5

- 3. The EIR does not adequately address the enormous “indirect impacts” that will occur as a result of implementing the General Plan, calling them “less than significant.” I119-6
 - 4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable. I119-7
 - 5. The Plan does not adequately evaluate the impacts of increased competition for water in our community. I119-8
- The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input. I119-9

Sincerely,

Margaret Chambers McMonigle

| | |
|------------------------|---------------------------------------------------------|
| Letter I119 | Margaret Chambers McMonigle February 27, 2020 |
|------------------------|---------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I119-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I119-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I119-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I119-4 See response to comment I9-5 regarding the analysis of social and economic issues in the draft EIR.
- I119-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I119-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I119-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I119-8 Refer to response to comment I9-9 regarding water supply.
- I119-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: Michael/Maggie McMonigle <mmmcmonigle@gmail.com>
Sent: Thursday, February 27, 2020 2:44 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Don and Bev de Nicola <de.nicola@cox.net>
Subject: Comments on General Plan/EIR

Letter
I120

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today’s presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

I120-1

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time,

” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

I120-2

February 19, 2020



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and

9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County’s Zoning Ordinance and the County’s minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an “Agricultural Mitigation Measure” through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park’s proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, “the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter.”

I120-2
cont.

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses “indirect impacts” that will occur as a result of implementing the 2040 General Plan as “less than significant.”

Page 4.2-13 of the EIR states “AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production.”

Page 4.2-17 of the EIR states: “Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the potential for conflicts would be minimal. This impact would be less than significant” (*emphasis added*).

I120-3

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

I120-4

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

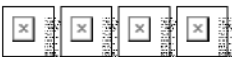
- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

I120-5

Direct and indirect impacts of increased competition for water resources The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

I120-6



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

I120-7

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director



In support of this letter-

Margaret Chambers McMonigle

| | |
|------------------------|---------------------------------------------------------|
| Letter I120 | Margaret Chambers McMonigle February 27, 2020 |
|------------------------|---------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter A13. The responses below provide cross references to the portions of Letter A13 where responses to the same comments have already been provided.

- I120-1 The comment describes that the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) has provided the following comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR “that CoLAB believes will negatively impact the viability of local agriculture.” This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

- I120-2 Refer to response to comment A13-7 and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.

- I120-3 Refer to response to comment A13-8 regarding the Right-to-Farm Ordinance and land use conflicts.

- I120-4 Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.

- I120-5 Refer to response to comment A13-10 regarding 2040 General Plan Policies AG-5.2 and AG-5.3.

- I120-6 Refer to response to comment A13-11 regarding water resources and loss of topsoil.

- I120-7 Refer to response to comment A13-12 regarding mitigation measure suggestions.

From: Michael/Maggie McMonigle <mmmcmonigle@gmail.com>
Sent: Thursday, February 27, 2020 2:46 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Don and Bev de Nicola <de.nicola@cox.net>
Subject: General Plan / EIR Comments

**Letter
I121**

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

I121-1

Margaret Chambers McMonigle

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|------------------------|---------------------------------------------------------|
| Letter I121 | Margaret Chambers McMonigle February 27, 2020 |
|------------------------|---------------------------------------------------------|

This comment letter repeats the same comments provided in Letter I6. The responses below provide cross references to the portions of Letter I6 where responses to the same comments have already been provided.

- I121-1 Refer to response to comment I6-1, which discusses setbacks from freeways and high traffic roads as a way to reduce adverse air quality effects for sensitive receptors, and the feasibility of Mitigation Measure AQ-3 (Policy HAZ-10.X).

From: Margaret K <kimball58@gmail.com>
Sent: Thursday, February 27, 2020 12:45 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Draft EIR 2040 County General Plan

Letter
I122

Attn: Board of Supervisors

As you review the Draft EIR for the County 2040 General Plan, I hope you pay close attention to some serious problems evident in the current draft. I have highlighted a few below.

I122-1

As a farmer affected by the Thomas Fire in December 2017, I find it astonishing that the EIR makes no mention of policies from the proposed General Plan that will significantly increase fuel load in high fire risk areas. Watching houses burn one after another, seeing orchards so seriously damaged the only recourse was to remove and replace all trees, and listening to friends, family members, and others recount the horrors of losing valued possessions and livelihoods, I am appalled that this proposed General Plan contains policies that will once again put this county at severe risk. CEQA demands that policies that increase risk from wildfire be analyzed. Where is this done?

I122-2

Over and over I read how Supervisors in this county value agriculture. Yet, the County has failed to analyze the impact on agriculture of competition for water supplies. Where is the analysis when the EIR admits increased development resulting from the General Plan will result in less water for irrigation? And WHY is data older than 2015 used in the Agriculture chapter? This does not speak to an understanding of farming in this county. Experts have long lauded this county for effective water management long before it was ever mandated by state regulation. And that water management was undertaken by FARMERS.

I122-3

Mitigation Measure AG-2 requires small development projects to purchase farmland to preserve in perpetuity. The County and Supervisors are well aware this mitigation measure is infeasible. County Counsel stated that a similar measure proposed at LAFCO in 2016 was infeasible and could not be included in an EIR. That has not changed.

I122-4

Please approach this important document thoughtfully for ALL constituencies in the county.

Margaret Kimball
Kimball McPheron Ranch

| | |
|------------------------|----------------------------------------------|
| Letter I122 | Margaret Kimball February 27, 2020 |
|------------------------|----------------------------------------------|

- I122-1 The comment asserts that there are issues with the draft EIR that are referenced in comments I122-2 to I122-4. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I122-2 The commenter expresses concern that the 2040 General plan contains policies “that will significantly increase fuel load in high fire risk areas,” that were not evaluated in the draft EIR. However, the comment does not indicate which specific policies could increase wildfire risk. Refer to response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation to increase wildland fire hazard.
- I122-3 The comment states that the draft EIR does not analyze the impact on agriculture from competition for water supplies. Refer to response to comment I4-3 regarding water availability and cost. Additionally, the commenter expresses concern regarding data used in the Background Report from 2015. Refer to Master Response MR-6 regarding Background Report content and response to comment I10-2. While the information provides context for the analysis in the draft EIR, it does not directly influence the analysis of potential impacts on farmland and agricultural resources pursuant to the thresholds of significance established in Appendix G of the State CEQA Guidelines and the County’s Initial Study Assessment Guidelines. Therefore, the age of these data does not affect the analysis or conclusions in the draft EIR.
- I122-4 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.

From: Margo Ferris <margoferris@gmail.com>
Sent: Tuesday, February 25, 2020 2:07 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comments

| |
|------------------------|
| Letter I123 |
|------------------------|

To: RMA Planning Division:

Thank you for your work on this DEIR, it takes time and dedication to get the document to this point. There are a few areas that are lacking in evidence and analysis when concerning the local oil and gas industry. I would like to see these serious issues addressed and corrected for a recirculated DEIR. I I123-1

The proposed oil and gas setback policies are unnecessary, lack justification, and will only make the Ventura County homeless crisis worse. Multiple studies have failed to demonstrate negative public health effects as a result of oil and gas operations in California. The state which has the most stringent environmental standards for operations. I I123-2

The DEIR relies too heavily on the unsettled legislation-AB 345- and incorrectly assumes that direction drilling is a viable setback mitigation option. I I123-3

These misguided and flawed policies truly need to be corrected for a recirculated DEIR. I I123-3

Thank You, Margo Ferris

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|------------------------|------------------------------------------|
| Letter I123 | Margo Ferris February 25, 2020 |
|------------------------|------------------------------------------|

- I123-1 This comment is introductory in nature and does not raise a significant environmental issue for which a response is required. See response to comment I123-2, below, regarding the commenter’s concerns about the oil and gas industry. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

- I123-2 Refer to Master Response MR-4, Sections MR-4.H Buffers (Setbacks), MR-4.E Applicability of Reference Studies for Oil and Gas Operations, and MR-4.I Directional Drilling, regarding the findings and conclusions related to buffers (setbacks) for oil and gas operations, reference studies relied upon in analysis of oil and gas related topics, and directional drilling.

- I123-3 Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Margot Davis <wally97@hotmail.com>
Sent: Tuesday, February 25, 2020 2:20 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; Margot Davis <wally97@hotmail.com>
Subject: COMMENT LETTER RE DRAFT DEIR TO COUNTY GENERAL PLAN 2020-2040

Letter
I124

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

COMMENT LETTER RE DRAFT DEIR TO COUNTY GENERAL PLAN UPDATE 2020-2040

February 25, 2020

TO WHOM IT MAY CONCERN:

The DEIR fails to recognize the true impact of climate change. It fails to declare the existing state of climate emergency that the general plan must be formulated to address in 2020-2040. It fails to provide enough emissions reduction to meet, or even make a sizeable dent in, the California state mandated climate goals. It fails to include a CLIMATE ACTION PLAN with measurable targets and goals as a separate document as requested by CFROG, 350 and other climate activists.

I124-1

The policies set in the general plan are not measurable or enforceable. Language used in the plan such as “encourage” or “support” rather than “require” or “mandate” is weak, insufficient and meaningless to meet acknowledged greenhouse gas reduction targets.

Furthermore, crucially, in the first place the DEIR is based on a wholly inadequate inventory of existing county emissions. The inventory was conducted from top down rather than bottom up and fails to include, or even consider, a significant portion of present emissions.

I124-2

To the best of my information Ventura County is the third largest producer of fossil fuels of all California counties and California is the largest producer of fossil fuels of all the states. This can be said to place a high fiduciary duty on Ventura County, owed to the rest of life on planet Earth, to drastically reduce its greenhouse gas emissions (fossil fuel production) in the next five years.

I124-3

ACTION NEEDED

- 1) Recognize and declare the global climate emergency as it exists in Ventura County today.
- 2) Reassess and make a complete bottom to top inventory of Ventura County greenhouse gas emissions at present.
- 3) Create a CLIMATE ACTION PLAN 2020-2040 with measurable targets and outcomes as a separate document.
- 4) Set clear climate action goals and mandate enforceable climate policies based on 1) and 2) above.
- 5) Rather than aim at 2040, start by aiming at 2025 and 2030, recognizing the urgency declared. As part of the CLIMATE ACTION PLAN include five and ten year climate emergency goals to be reached by 2025 and 2030.

I124-4

I124-5

FIVE AND TEN YEAR EMERGENCY CLIMATE GOALS

- A) Decrease total county greenhouse gas emissions that have been newly inventoried by 20% per year to zero emissions by 2025.
- B) Wind down existing discretionary oil and gas production 10% per year to zero fossil fuel production in Ventura County by 2030. Achieve this goal by starting with oil and gas facilities located within one mile buffer zones of schools, public parks, mobile home parks and homes.

I124-6

- C) Flaring and venting toxic gases and climate pollutants like methane into the atmosphere by prohibited before 2025.
 - D) All small gas engines used in agriculture and landscape businesses, as well as by private citizens (leaf blowers, edgers, mowers, hedge trimmers, etc.) which do not at all curb emissions, be banned and replaced by electric models before 2025. County should subsidize this transition to the extent possible by securing state, federal or private grant clean energy funding.
 - E) Implement an agricultural policy in Ventura County requiring a transition to 100% regenerative farming, eliminating toxic pesticide use and including carbon sequestration by 2030.
 - F) Implement a county policy requiring transition to full electric vehicles for all public transportation (buses, trolleys, county and municipal vehicles) by 2025.
 - G) Implement a policy working with existing oil and gas industry facilities to train laid off workers and bring clean energy jobs and electric vehicle production to Ventura County.
- H) GREENHOUSE GAS SUPER EMITTERS : A recent NASA study documents that several Ventura County facilities, including oil and gas operations, make up approximately 26% of all emissions in California. The CLIMATE ACTION PLAN must include strong policies to detect and curb emissions from these super emitters by 2030.

Respectfully submitted,

Margot Davis
148 West Simpson
Ventura, CA 93001

| | |
|------------------------|------------------------------------------|
| Letter I124 | Margot Davis February 25, 2020 |
|------------------------|------------------------------------------|

- I124-1 The comment states that the draft EIR does not recognize the true impacts of climate change. The anticipated physical effects of climate change are characterized in the Background Report included as Appendix B to the draft EIR. The comment also states that the language of the 2040 General Plan policies is insufficient to result in meaningful reductions.
- The draft EIR evaluates the efficacy of the 2040 General Plan policies under the assumption that these policies would be implemented as written and derives a significance conclusion based on these reductions. The draft EIR concludes that greenhouse gas (GHG) emissions associated with the 2040 General Plan would be potentially significant and recommends seven feasible mitigation measures to achieve additional GHG emissions reductions. See Master Response MR-1 for additional discussion.
- Finally, the comment requests preparation of a Climate Action Plan (CAP) separate from the 2040 General Plan. The 2040 General Plan sets GHG reduction targets and goals at 10-year intervals that were developed in consideration of statewide GHG reduction targets and other reduction goals. Because the 2040 General Plan encompasses policies and targets that would similarly be contained in a standalone CAP, the 2040 General Plan can be used in the same way to reduce countywide emissions.
- I124-2 The comment pertains to the GHG inventory performed in the draft EIR. Refer to Master Response MR-1 regarding the development of the GHG inventory.
- I124-3 The information summarizing fossil fuel production in Ventura County and California, Ventura County's duty to reduce its greenhouse gas emissions, and the need to recognize and declare a global climate emergency is noted. This comment is not related to the adequacy of the draft EIR and does not raise a significant environmental issue for which a response is required. Refer to response to comment I23-3 for further discussion of emergency declarations.
- I124-4 The comment pertains to the GHG inventory performed in the draft EIR. Refer to Master Response MR-1 regarding the development of the GHG inventory.
- I124-5 The comment suggests that a CAP should be presented as a separate document from the 2040 General Plan and include enforceable, measurable targets. Refer to response to comment I124-1, above.
- The comment also suggests that the CAP include 5- and 10-year goals, including a goal to reduce total county emissions by 20 percent annually and to zero by 2025. The 2040 General Plan includes measurable targets and goals for GHG reductions for 2030, 2040, and 2050 that are aligned with the State's legislative greenhouse gas reduction targets and other reduction goals (draft EIR page 4.8-6). Refer to Master Response MR-1 for discussion of how the GHG reduction

targets and goals were developed and their alignment with State targets and goals for GHG reduction. In addition, Implementation Program AA in the Conservation and Open Space Element of the 2040 General Plan would require updates to the GHG emissions inventory to track GHG reduction performance at 5-year intervals.

- I124-6 Refer to Master Response MR-4, Sections MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations), MR-4.H Buffers (Setbacks), and MR-4.A County’s Authority to Regulate Oil and Gas Development, regarding the findings and conclusions related to phasing out oil and gas operations, buffers (setbacks) for oil and gas operations, and the County’s authority to regulate oil and gas operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I124-7 The comment suggests climate change goals for 2025 and 2030 that could be considered in the 2040 General Plan. These suggestions are noted and are generally congruent with the types of policies and programs included in the 2040 General Plan and analyzed in the draft EIR. The 2040 General Plan does include policies and programs to restrict flaring and venting of gases from new discretionary oil and gas wells (Policy COS-7.8), transition farm equipment away from fossil fuels (Programs AG-I and AG-H), and sequester carbon through changes in farming practices (Program AG-L). Because the County lacks legal authority to mandate some of the changes proposed to personal and business practices, such as the types of vehicles procured by public transit operators, the County cannot feasibly implement the types of programs envisioned by the commenter. This comment is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I124-8 The comment cites a National Aeronautics and Space Administration study regarding “super-emitters” and states that the 2040 General Plan must include strong policies to detect and curb emissions from these “super-emitters.” Refer to Master Response MR-1 regarding super-emitters and their representation in the GHG inventory prepared for the 2040 General Plan and draft EIR.

Marianne McGrath
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
I125

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I125-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I125-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I125-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I125-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I125-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I125-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I125-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I125-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I125-9

Sincerely,



Marianne McGrath

| | |
|------------------------|----------------------------------------------|
| Letter I125 | Marianne McGrath February 24, 2020 |
|------------------------|----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I125-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I125-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I125-3 Refer to response to comment I4-3 regarding water availability and cost.
- I125-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I125-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I125-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I125-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I125-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I125-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Taylor, Marie <Marie.Taylor@providence.org>
Sent: Thursday, February 27, 2020 11:49 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: FW: [EXTERNAL] Fwd: Ventura Letter for the kids to sign

Letter
1126

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Ms. Curtis,

I appreciate the value of your time and request your attention to the following letter. I am one of the many of the McLoughlin family members. My family has been tied to this land for many years and I have a great deal of interest preserving this land for our family and future generations. My daughter's middle name is McLoughlin as we are very proud of our family heritage. I understand that as population exponentially increases additional roadways need to be created to provide access for all, however, I believe that there are options. Please consider the impact that the current plans will have on our family.

I126-1

Sincerely,
Marie Taylor

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I am a part of the McLoughlin Family. We have been farming in Ventura County for approximately 150 years. We currently own 300 acres of agricultural property off of Olivas Park Road in the County of Ventura near the Ventura Marina on Harbor Rd, in proximity to the City of Ventura.

The McLoughlin family has farmed this land and other parcels for generations going back to 1863. It remains our desire to continue this legacy, however, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. That, however, is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

I126-2

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. The DEIR, however, never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.
 Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

I126-3
 - In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. No further details beyond this conclusory statement are provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I126-4
- Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. It’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.
- I126-5

I appreciate your consideration.
 Sincerely,

| | |
|--------------------|------------------------------------------|
| Letter I126 | Marie Taylor February 27, 2020 |
|--------------------|------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I126-1 The history of the McLoughlin family and their land in Ventura County is noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I126-2 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.
- I126-3 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.
- I126-4 Refer to response to comment I8-4 and Master Response MR-2 regarding the 2040 General Plan’s consistency with the Save Open Space and Agricultural Resources initiative.
- I126-5 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Marjie Bartels <bartelsranch@gmail.com>
Sent: Thursday, February 27, 2020 2:30 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

| |
|------------------------|
| Letter I127 |
|------------------------|

Dear Ms. Curtis: The EIR is based on incomplete analysis of policies, contains several false and ill-advised policies, and fails to understand key challenges related to Ventura County.

I
I127-1

Some of the issues are:

1. CEQA requires that the EIR contain enough detailed information to allow the reader to understand and evaluate the County's impact analysis. But the EIR and its 1000-page Background Report are filled with errors, vague statements, and outdated information. All information in the Agricultural Chapter is older than 2015! The maps in the EIR and the Background Report are such poor resolution and detail that some are blurry and illegible.

I
I127-2

2. CEQA requires that both direct and indirect impacts be analyzed. Yet the County failed to analyze indirect impacts (complaints, competition for water supplies, theft and vandalism, etc.) on agricultural land from increased development and more urban-ag interface, because the County assumes that the Right-to-Farm Ordinance will prevent any impacts on agriculture that may occur from urban-property owner complaints.

I
I127-3

3. CEQA says that all policies that may cause impacts to ag lands must be evaluated. But the County failed to analyze or even discuss the policies in the General Plan that will increase farming operational costs (converting ag equipment to electric, requiring all electric water pumps, increasing costs for water supply, etc.).

I
I127-4

Please do the correct thing for Ventura County and take the time to correct and recirculate the EIR!

I
I127-5

Marjie Bartels, Certified Organic Valencia Orange Grower in Bardsdale

| | |
|------------------------|--------------------------------------------|
| Letter I127 | Marjie Bartels February 27, 2020 |
|------------------------|--------------------------------------------|

I127-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

I127-2 The commenter's opinion about the accuracy and level of detail in the draft EIR and Background Report are noted. It is not clear from the comment what errors, vague statements, or outdated materials resulted in the commenter's inability to understand the impact analysis provided in Section 4.2, "Agriculture and Forestry Resource," of the draft EIR. The data and maps in the Background Report characterize the entire county with sufficient clarity to inform the analysis in the draft EIR. The evaluation of the potential significance of impacts is not predicated on an understanding of the various and changing dynamics of local crop production, export, or sales. As explained in the "Methodology" subsection (page 4.2-3 of the draft EIR), the EIR analysis considers whether future development under the 2040 General Plan could result in loss of agricultural resources or conversion of agricultural resources to non-agricultural uses or result in indirect loss of agricultural resources by allowing for non-agricultural land uses adjacent to classified farmland. The comment provides no evidence that the most current

data would substantially differ from that presented or change the analysis in the draft EIR. No revisions to the draft EIR have been made in response to this comment. Refer also to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.

- I127-3 The comment states that the draft EIR does not analyze indirect impacts such as “complaints, competition for water supplies, theft and vandalism.” on agricultural land from increased development. Further, the comment expresses concern regarding reliance on the Right-to-Farm Ordinance to reduce impacts. The draft EIR does analyze the potential for development under the 2040 General Plan to result in conflicts with classified farmland in Impact 4.2-2 (starting at page 4.2-17). This analysis notes that “the County protects and preserves agricultural land through the [Save Open Space and Agricultural Resources] Initiative, Agricultural/Urban Buffer Policy, Greenbelt Agreements, the Agricultural/Urban Buffer Policy, the Right-to-Farm Ordinance, GP Policy AG-1.1, GP Policy AG-1.2, GP Policy AG-2.1, GP Policy AG-2.2, GP Policy AG-2.3, and Guidelines for Orderly Development” and basis the analysis on the implementation of all of these policies (draft EIR page 4.2-17). Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface and response to comment A13-11 for a further discussion of available water resources for irrigation. Refer to response to comment O7-8 regarding potential impacts related to theft and vandalism.
- I127-4 The comment states that the draft EIR does not analyze the 2040 General Plan policies that would increase farming operational costs such as “converting ag equipment to electric, requiring all electric water pumps, increasing costs for water supply, etc.” Refer to response to comment A13-10 regarding 2040 General Plan Policies AG-5.2 and AG-5.3.
- I127-5 For the reasons described in the cross-referenced responses, above, no revisions to the draft EIR are warranted. Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Mark Mendelsohn <info@email.actionnetwork.org>
Sent: Friday, February 21, 2020 3:23 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

**Letter
I128**

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

I128-1

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I128-2

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I128-3

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Mark Mendelsohn
mmendels33@gmail.com
8076 Crystal Pl
Ventura, California 93004

| | |
|------------------------|---------------------------------------------|
| Letter I128 | Mark Mendelsohn February 21, 2020 |
|------------------------|---------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I128-1 Refer to response to comment I3-1 regarding the commenter’s concerns about climate change and the draft EIR analysis.
- I128-2 Refer to response to comment I3-2 regarding the use of the most current climate change science in the draft EIR analysis.
- I128-3 Refer to response to comment I3-3 regarding suggested mitigation measures.

From: Marshall C. Milligan <mcmilligan@gmail.com>
Sent: Tuesday, February 25, 2020 3:32 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; General Plan Update <GeneralPlanUpdate@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

**Letter
1129**

Ventura County Board of Supervisors
 Attn: RMA Planning Division
 General Plan Update
 800 Victoria Avenue L#1740
 Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

My family has owned for generations and continues to own agricultural properties in Ventura County, including mineral rights under a number of currently and previously owned parcels. I'm writing to you as an owner of mineral rights in Ventura County.

I129-1

The 2040 General Plan Draft EIR fails to give proper analysis to mineral resources and must be corrected to more adequately and fairly assess the impact of the proposed general plan on owners of mineral rights.

Neither the EIR nor the Background Report provide a complete and thorough description of the existing regulations affecting the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

I129-2

The EIR fails to analyze the direct and indirect impacts to mineral resource development as a result of the 2040 Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses over known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding the anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity.

I129-3

As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to develop and manage mineral resources in the County.

Gaps in the 2040 General Plan Draft EIR must be corrected, and the Draft EIR recirculated, to fairly present the foreseeable impacts on owners of mineral rights in the County.

I129-4

Sincerely,
 Marshall C. Milligan
 805-570-0332

| | |
|------------------------|-------------------------------------------------|
| Letter I129 | Marshall C Milligan February 25, 2020 |
|------------------------|-------------------------------------------------|

I129-1 The comment provides information summarizing the commenter’s ownership of agricultural properties and mineral rights in Ventura County and states that the draft EIR does not properly analyze the effects of the 2040 General Plan on individuals that own mineral rights. The draft EIR evaluates the potential physical effects on the environment that could result from implementation of the 2040 General Plan in a manner consistent with the County’s adopting Initial Study Assessment Guidelines and the California Environmental Quality Act Guidelines. Refer to the analysis in Section 4.12, “Petroleum and Mineral Resources,” which correctly evaluates the potential to result in loss of availability of mineral resources. California Environmental Quality Act does not require evaluation of social or economic impacts on property owners. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

I129-2 The commenter indicates that the draft EIR and Background Report do not provide a complete description of the existing and current regulatory setting for production of mineral resources. The Background Report Section 8.4, “Mineral Resources,” 8.5, “Energy Resources,” and Section 10.2 “Legal and Regulatory Framework for Water Management (Class II Underground Injection Control Program),” provide relevant regulatory information necessary for understanding and evaluating the impacts of the 2040 General Plan on petroleum resources. Additionally, the draft EIR Mineral and Petroleum Resources Section 4.12.1, Background Report Setting Updates, includes additional information laws and regulations that pertain to petroleum development. This includes federal laws and regulations related to gas pipelines, state laws and regulations related to the California Pipeline Safety Act of 1981, Ventura County Air Pollution Control District (VCAPCD) Rule No. 71.1 – Crude Oil Production and Separation and Rule No. 54 – Sulfur Compounds, VCAPCD Primary (Non-Emergency) Flares, VCAPCD Emergency Flares, and VCAPCD Permitted Flare Variances, and Non-Coastal and Coastal Zoning Ordinances. In the response to this comment, and based on the April 9, 2020 comment letter from the California Geologic Energy Management Division (CalGEM) describing its current regulatory program, the regulatory framework section has been augmented. The enhance discussion of regulatory framework would not alter the findings or analysis in the EIR. These augments to the regulatory setting for Section 4.12 are provided in final EIR Chapter 3, “Revisions to the Draft EIR.”

I129-3 The commenter indicates that the draft EIR and Background Report do not provide a complete description of the existing and current regulatory setting for production of mineral resources. The Background Report Section 8.4, “Mineral Resources,” 8.5, “Energy Resources,” and Section 10.2 “Legal and Regulatory Framework for Water Management (Class II Underground Injection Control Program),” provide relevant regulatory information necessary for understanding and evaluating the impacts of the 2040 General Plan on petroleum resources.

Additionally, the draft EIR Mineral and Petroleum Resources Section 4.12.1, Background Report Setting Updates, includes additional information laws and regulations that pertain to petroleum development. This includes federal laws and regulations related to gas pipelines, state laws and regulations related to the California Pipeline Safety Act of 1981, Ventura County Air Pollution Control District (VCAPCD) Rule No. 71.1 – Crude Oil Production and Separation and Rule No. 54 – Sulfur Compounds, VCAPCD Primary (Non-Emergency) Flares, VCAPCD Emergency Flares, and VCAPCD Permitted Flare Variances, and Non-Coastal and Coastal Zoning Ordinances. In the response to this comment, and based on the April 9, 2020 comment letter from the California Geologic Energy Management Division (CalGEM) describing its current regulatory program, the regulatory framework section has been augmented. The enhanced discussion of regulatory framework would not alter the findings or analysis in the EIR. These augments to the regulatory setting for Section 4.12 are provided in final EIR Chapter, “Revisions to the Draft EIR.”

- I129-4 For the reasons described in the responses above, no revisions to the draft EIR are warranted. Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Curtis, Susan
Sent: Monday, March 2, 2020 8:49 AM
To: Simmons, Carrie
Subject: FW: 2040 General Plan

Letter
I130

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

-
From: Martha Branson <marthab876@gmail.com>
Sent: Thursday, February 27, 2020 5:08 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan

Dear Ms Curtis,

I think the board's assessment of Ventura County's vulnerability is out of date. In 2018 the IPCC released a revised report of the climate crisis and the projection is far more dire. We are already suffering the effects of global warming and we have only a few years to make a difference in our planet's fate. You have plans that extend to 2040, 2050, and 2090! This will be far too little far too late. I believe you should take a much stronger approach to your net zero emissions goals, and I would like to see real quantifiable plans explaining how you will reach net zero.

I130-1

I believe you have a responsibility to begin shutting down the fossil fuel industry in our county. I do understand how costly it will be, but I also understand the economic cost and the cost to human lives, and to our planet if you allow the drilling to continue.

I130-2

Sincerely,

Martha Brown

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| Letter I130 | Martha Brown February 27, 2020 |
|------------------------|------------------------------------------|

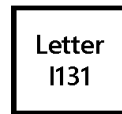
I130-1 The comment expresses concern about climate change and suggests that the County take a stronger approach to reaching net zero emissions goals. The statement that the Board of Supervisor’s assessment of the county’s vulnerability is out of date is noted. Note that Chapter 12 of the Background Report is incorporated into Section 4.8, “Greenhouse Gas Emissions,” of the draft EIR, which summarizes anticipated effects of climate change on Ventura County. Further, the draft EIR does not evaluate the effects of the climate change on the 2040 General Plan and it is not required under the California Environmental Quality Act for the 2040 General Plan to mitigate existing or anticipated effects of the environment on the plan area; the EIR analyzes the physical environmental changes that would occur as a result of 2040 General Plan implementation.

Although the 2040 General Plan does provide a long term planning framework through 2040, it also includes interim targets and goals at 10-year intervals out to 2050 that were developed in consideration of statewide greenhouse gas (GHG) reduction targets and other reduction goals and would require updates to the GHG emissions inventory to track GHG reduction performance at 5-year intervals. Note that the horizon year of the 2040 General Plan is the year 2040. Refer to Master Response MR-1 for additional discussion.

This comment is not related to the adequacy of the draft EIR. Therefore, no further response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I130-2 Refer to Master Response MR-4, Sections MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations) and MR-4.A County’s Authority to Regulate Oil and Gas Development, regarding the findings and conclusions related to the potential to stop issuance of oil and gas related permits and the County’s authority to regulate oil and gas operations.

From: Martina Gallegos <info@email.actionnetwork.org>
Sent: Sunday, February 23, 2020 10:10 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!



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Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

I
I131-1

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I
I131-2

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I
I131-3

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—
Martina Gallegos

Martina Gallegos
Coyo123@icloud.com
532 Paseo Nogales
Oxnard , California 93030

| | |
|------------------------|----------------------------------------------|
| Letter I131 | Martina Gallegos February 23, 2020 |
|------------------------|----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I131-1 Refer to response to comment I3-1 regarding the commenter’s concerns about climate change and the draft EIR analysis.
- I131-2 Refer to response to comment I3-2 regarding the use of the most current climate change science in the draft EIR analysis.
- I131-3 Refer to response to comment I3-3 regarding suggested mitigation measures.

From: Mary Chambers Moro <maryellen.moro@verizon.net>
Sent: Wednesday, February 26, 2020 11:37 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: James Chambers <costacasas@gmail.com>
Subject: Comments on General Plan/EIR

**Letter
1132**

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

I1132-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

I1132-2

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I1132-3

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income /worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government’s housing policies.
3. The EIR does not adequately address the enormous “indirect impacts” that will occur as a result of implementing the General Plan, calling them “less than significant.”
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

I1132-4

I1132-5

I1132-6

I1132-7

I1132-8

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

I132-9

Sincerely,
Mary Chambers Moro

| | |
|--------------------|------------------------------------------------|
| Letter I132 | Mary Chambers Moro February 26, 2020 |
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This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I132-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I132-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I132-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I132-4 Refer to response to comment I9-5 regarding the analysis of social and economic issues in the draft EIR.
- I132-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I132-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I132-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I132-8 Refer to response to comment I9-9 regarding water supply.
- I132-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: Mary Chambers Moro <maryellen.moro@verizon.net>
Sent: Wednesday, February 26, 2020 11:45 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on General Plan/EIR

Letter
I133

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today’s presentation by Ventura County Planning staff on the 2040 General Plan EIR.

I133-1

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time, ” (emphasis added). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

I133-2

February 19, 2020

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County’s Zoning Ordinance and the County’s minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish

an “Agricultural Mitigation Measure” through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park’s proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, “the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter.”

I133-2
cont.

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses “indirect impacts” that will occur as a result of implementing the 2040 General Plan as “less than significant.”

Page 4.2-13 of the EIR states “AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production.”

Page 4.2-17 of the EIR states: “Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...**Therefore, the potential for conflicts would be minimal. This impact would be less than significant**” (*emphasis added*).

I133-3

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

[Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org](http://VenturaCountyCoalitionofLabor,AgricultureandBusiness/1672DonlonStreet,Ventura,CA93003/805-633-2260/info@colabvc.org)

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

I133-4

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

I133-5

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that "...a reduction in available water resources for irrigation" is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion.

But the County fails to analyze or propose mitigation measures to address this significant impact.

I133-6

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

- 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
- 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
- 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

I133-7

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director

In support of this letter-Mary Chambers Moro

| | |
|------------------------|------------------------------------------------|
| Letter I133 | Mary Chambers Moro February 26, 2020 |
|------------------------|------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter A13. The responses below provide cross references to the portions of Letter A13 where responses to the same comments have already been provided.

- I133-1 The comment describes that the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) has provided the following comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR “that CoLAB believes will negatively impact the viability of local agriculture.” This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I133-2 Refer to response to comment A13-7 and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I133-3 Refer to response to comment A13-8 regarding the Right-to-Farm Ordinance and land use conflicts.
- I133-4 Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.
- I133-5 Refer to response to comment A13-10 regarding 2040 General Plan Policies AG-5.2 and AG-5.3.
- I133-6 Refer to response to comment A13-11 regarding water resources and loss of topsoil.
- I133-7 Refer to response to comment A13-12 regarding mitigation measure suggestions.

Letter
I134

REC'D FEB 27 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I134-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I134-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I134-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually

I134-4

impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I134-4
cont.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I134-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I134-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I134-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I134-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I134-9

Sincerely,



Mary Ellen Gravel
President, Elkins Royalty Group

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| Letter I134 | Mary Ellen Gravel February 25, 2020 |
|------------------------|-----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I134-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I134-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I134-3 Refer to response to comment I4-3 regarding water availability and cost.
- I134-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I134-5 Refer to response to comment I4-5 regarding the commenter’s request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I134-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I134-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I134-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I134-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Mary Freed [<mailto:msmfreed@gmail.com>]
Sent: Wednesday, February 26, 2020 1:04 PM
To: ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>
Subject: VC 2040 Draft General Plan & EIR

| |
|------------------------|
| Letter I135 |
|------------------------|

We need much stronger measures to protect Ventura County from increasingly rapid and negative climate changes than the current proposals in this draft general plan. Suggestions are worthless. If we want positive climate changes the County must require them. Start with changing the County vehicle fleet to all electric. Stop all oil extraction in the county. Develop a workable public transit system county wide. Provide incentives for farmers to change to organic and regenerative methods. Make this plan tough enough to actually make a dent in climate changes.
 Mary Freed, Thousand Oaks

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| I135-1 |
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|------------------------|----------------------------------------|
| Letter I135 | Mary Freed February 26, 2020 |
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I135-1 The comment suggests policies that could be considered in the 2040 General Plan, including making the County’s vehicle fleet electric powered, stopping oil and gas extraction, improving public transit, and encouraging sustainable farming practices. These suggestions are noted and are generally congruent with the types of policies and programs included in the 2040 General Plan and analyzed in the draft EIR. The 2040 General Plan includes policies and programs to purchase alternative fuel vehicles (Policy PFS-2.6), facilitate alternative transportation modes including public transit (Policies HAZ-10.6 and HAZ-10.8), and sequester carbon through changes in farming practices (Program AG-L). Refer to Master Response MR-4 regarding the suggestion that the County prohibit petroleum extraction. Because this comment is not related to the adequacy of the draft EIR, no further response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: Katie Mcmonigle <katiemcmonigle.vb@gmail.com>
Sent: Thursday, February 27, 2020 10:13 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: de.nicola@cox.net
Subject: Comments on General Plan/EIR

Letter
I136

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my great grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

I136-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

I136-2

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I136-3

I would also like to raise some additional concerns:

- 1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community. I136-4
 - 2. According to the General Plan, if we were to build an acre of low income/worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies. I136-5
 - 3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant." I136-6
 - 4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable. I136-7
 - 5. The Plan does not adequately evaluate the impacts of increased competition for water in our community. I136-8
- The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input. I136-9

Sincerely,

Mary Katherine Chambers McMonigle

| | |
|--------------------|---------------------------------------------------------------|
| Letter I136 | Mary Katherine Chambers McMonigle February 27, 2020 |
|--------------------|---------------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I136-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I136-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I136-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I136-4 Refer to response to comment I9-5 regarding the analysis of social and economic issues in the draft EIR.
- I136-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I136-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I136-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I136-8 Refer to response to comment I9-9 regarding water supply.
- I136-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: Katie Mcmonigle <katiemcmonigle.vb@gmail.com>
Sent: Thursday, February 27, 2020 2:18 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: de.nicola@cox.net
Subject: Comments on General Plan/EIR

Letter
1137

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today’s presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

I1137-1

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time,
” (emphasis added). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

I1137-2

February 19, 2020



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Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County’s Zoning Ordinance and the County’s minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an “Agricultural Mitigation Measure” through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor

Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park’s proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, “the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter.”

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses “indirect impacts” that will occur as a result of implementing the 2040 General Plan as “less than significant.”

Page 4.2-13 of the EIR states “AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production.”

Page 4.2-17 of the EIR states: “Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the potential for conflicts would be minimal. This impact would be less than significant” (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural



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Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis

I137-2
cont.

I137-3

I137-4

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

I137-4
cont.

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

I137-5

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

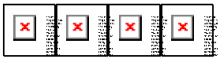
Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion.

I137-6

But the County fails to analyze or propose mitigation measures to address this significant impact.



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

I137-7

- 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
- 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and

- 3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000’ of any land zoned A/E.

I137-7
cont.

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director



In support of this letter-
Mary Katherine Chambers McMonigle

| | |
|------------------------|---------------------------------------------------------------|
| Letter I137 | Mary Katherine Chambers McMonigle February 27, 2020 |
|------------------------|---------------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter A13. The responses below provide cross references to the portions of Letter A13 where responses to the same comments have already been provided.

- I137-1 The comment describes that the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) has provided the following comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR “that CoLAB believes will negatively impact the viability of local agriculture.” This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I137-2 Refer to response to comment A13-7 and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I137-3 Refer to response to comment A13-8 regarding the Right-to-Farm Ordinance and land use conflicts.
- I137-4 Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.
- I137-5 Refer to response to comment A13-10 regarding 2040 General Plan Policies AG-5.2 and AG-5.3.
- I137-6 Refer to response to comment A13-11 regarding water resources and loss of topsoil.
- I137-7 Refer to response to comment A13-12 regarding mitigation measure suggestions.

From: Katie Mcmonigle <katiemcmonigle.vb@gmail.com>
Sent: Thursday, February 27, 2020 2:19 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: de.nicola@cox.net
Subject: General Plan / EIR Comments

**Letter
I138**

To: Susan Curtis-

County failed to evaluate mitigation measures for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build-out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

I138-1

Mary Katherine Chambers McMonigle

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|------------------------|---------------------------------------------------------------|
| Letter I138 | Mary Katherine Chambers McMonigle February 27, 2020 |
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This comment letter repeats the same comments provided in Letter I6. The responses below provide cross references to the portions of Letter I6 where responses to the same comments have already been provided.

I138-1 Refer to response to comment I6-1, which discusses setbacks from freeways and high traffic roads as a way to reduce adverse air quality effects for sensitive receptors, and the feasibility of Mitigation Measure AQ-3 (Policy HAZ-10.X).

058
10/27/20
053

Letter
I139

Mary Kathleen McGrath
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I139-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I139-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I139-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I139-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I139-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I139-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I139-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I139-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I139-9

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Sincerely,



Mary Kathleen McGrath

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| Letter I139 | Mary Kathleen McGrath February 24, 2020 |
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This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I139-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I139-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I139-3 Refer to response to comment I4-3 regarding water availability and cost.
- I139-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I139-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I139-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I139-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I139-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I139-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: M Vanoni <mvanoni@sbcglobal.net>
Sent: Wednesday, February 26, 2020 6:40 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

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|------------------------|
| Letter I140 |
|------------------------|

Ventura County - RMA Planning Division

The DEIR is based on incomplete analysis of policies, contains several false and ill-advised policies, and fails to understand key challenges related to Ventura County. I140-1

Background Report is inaccurate, vague, and contains outdated information that is so poor it cannot be used for analysis. I140-2

Fig 11-11 is of such poor resolution and detail that it is impossible to determine where urban-wildfire interface areas may exist for any parcel. Providing a map of such poor resolution that the entire county is "colored in" does not provide useful data that can be used for any kind of impact analysis. I140-2

Map 9-7 in the Ag Chapter is blurry and the text is impossible to read. Maps like this violate the intent of CEQA as the reader is not given clear and applicable data with which to evaluate the County's impact analysis. I140-3

Please do what is best for Ventura County and halt this flawed document which does not achieve (and negatively affects) its primary purpose, which is to be a tool of disclosure of all impacts caused by the 2040 General Plan. I140-3

Mary Vanoni
 Farmer
 Past President of California Women for Agriculture, Ventura County Chapter

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| Letter I140 | Mary Vanoni February 26, 2020 |
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- I140-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.
- I140-2 Regarding the adequacy of the Background Report, refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR, including discussion on the level of detail and scale of information. Also, refer to response to comment O32-10 regarding the specific maps—Figures 9-7 and 11-11—noted by the commenter, which explains why these figures are adequate to support the draft EIR analysis.
- I140-3 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

From: Mary Victoria Taylor <MaryVictoria.Taylor@jserra.org>
Sent: Wednesday, February 26, 2020 6:04 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: County GP Comment Letter - McLoughlin Family Committee (002 A)

Letter
I141

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Please open this letter and print as it pertains to the McLoughlin Family Committee.

Thank you very much.

Sincerely,

Mary Victoria Taylor
949.429.9802

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I am a part of the McLoughlin Family. We have been farming in Ventura County for approximately 150 years. We currently own 300 acres of agricultural property off of Olivas Park Road in the County of Ventura near the Ventura Marina on Harbor Rd, in proximity to the City of Ventura.

The McLoughlin family has farmed this land and other parcels for generations going back to 1863. It remains our desire to continue this legacy, however, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. That, however, is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

I141-1
T I141-2

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. The DEIR, however, never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

I141-2
cont.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. No further details beyond this conclusory statement are provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I141-3

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. It’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I141-4

I appreciate your consideration.

Sincerely,

Mary Victoria Taylor

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| Letter I141 | Mary Victoria Taylor February 26, 2020 |
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This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I141-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.
- I141-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.
- I141-3 Refer to Master Response MR-2 regarding the 2040 General Plan’s consistency with the Save Open Space and Agricultural Resources initiative.
- I141-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Josep Volpe <bluesurfvan@gmail.com>
Sent: Saturday, February 22, 2020 10:43 AM
To: General Plan Update
Subject: Comment on future policies

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| Letter I142 |
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Please consider that we are facing a much worse future for all our health if we continue to put profits for the petroleum industry before people's' health. That is not to say there is not room for plenty of income and profits to be made. Just please do it sensibly with renewable energy. Stop all fracking immediately. Push for electric vehicles. Improve public transportation. Encourage bicycle use, etc. You know how to do it. It will just take the political will to stand up to the petroleum industry that is harming everyone in Ventura County, let alone the entire planet.

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I142-1
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Thank you for listening to reason.
 Sincerely,
 Mary Volpe

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| Letter I142 | Mary Volpe February 22, 2020 |
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I142-1 Refer to Master Response MR-4, Sections MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations) and MR-4.A County’s Authority to Regulate Oil and Gas Development, regarding the findings and conclusions related to the potential to stop issuance of oil and gas related permits and the County’s authority to regulate oil and gas operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Letter
I143

FEB 25 2020

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

I143-1

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

I143-2

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I143-3

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across

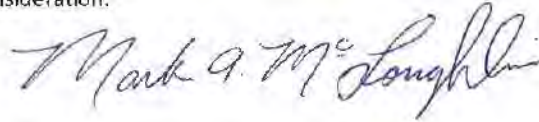
I143-4

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sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I143-4
cont.

I appreciate your consideration.



1202897.1

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

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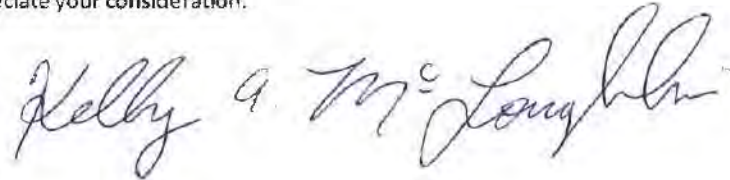
I143-5

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I143-5
cont.

I appreciate your consideration.

A handwritten signature in black ink that reads "Kelly A. McLaughlin". The signature is written in a cursive style with a large, looped initial 'K' and 'M'.

1202897.1

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

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I143-5
cont.

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I143-5
cont.

I appreciate your consideration.

Toril M-Laughd Raymond

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Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

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cont.

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I143-5
cont.

I appreciate your consideration.

A handwritten signature in black ink, appearing to read "Frank Lopez". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

1202897.1

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

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Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across

I143-5
cont.

1202897.1

sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I143-5
cont.

I appreciate your consideration.

A handwritten signature in black ink that reads "Margo McLaughlin Feis". The signature is written in a cursive, flowing style.

1202897.1

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across

I143-5
cont.

1202897.1

sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I143-5
cont.

I appreciate your consideration.



1202897.1

| | |
|------------------------|---------------------------------------------------------|
| Letter I143 | McLoughlin Family Committee February 25, 2020 |
|------------------------|---------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I143-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.
- I143-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.
- I143-3 Refer to Master Response MR-2 regarding the 2040 General Plan’s consistency with the Save Open Space and Agricultural Resources initiative.
- I143-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.
- I143-5 The comment encompasses five copies of the same comment letter, each with unique signatories, that were submitted as part of the same package on behalf of the McLoughlin Family Committee. The concerns raised in these letters are addressed in responses to comments I143-1 through I143-4, above.

From: Meghan McMonigle <meghancmmonigle@gmail.com>
Sent: Thursday, February 27, 2020 2:19 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; Bev Denicola <de.nicola@cox.net>
Subject: General Plan / EIR Comments

| |
|------------------------|
| Letter I144 |
|------------------------|

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To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

I144-1

Meghan Chambers McMonigle

--

Meghan McMonigle

KTLA 5 Technology Segment Producer

5800 Sunset Blvd. Los Angeles, CA 90028 | *Office: 323-460-5520 | Cell: 323-371-4042*

| | |
|------------------------|----------------------------------------------|
| Letter I144 | Meghan McMonigle February 27, 2020 |
|------------------------|----------------------------------------------|

This comment letter repeats the same comments provided in Letter I6. The responses below provide cross references to the portions of Letter I6 where responses to the same comments have already been provided.

- I144-1 Refer to response to comment I6-1, which discusses setbacks from freeways and high traffic roads as a way to reduce adverse air quality effects for sensitive receptors, and the feasibility of Mitigation Measure AQ-3 (Policy HAZ-10.X).

From: Meghan McMonigle <meghancmcmonigle@gmail.com>
Sent: Thursday, February 27, 2020 2:12 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Bev Denicola <de.nicola@cox.net>
Subject: Comments on General Plan/EIR

Letter
I145

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Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my great grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

I145-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, "unlike the Preble area, services are not readily available to the Olivas lands." This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is "not included in the City's sanitation district because of problems with water pressure." This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district's pipelines actually traverse our property.

I145-2

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I154-3

I would also like to raise some additional concerns:

- 1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community. I154-4
- 2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies. I154-5
- 3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant." I154-6
- 4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable. I154-7
- 5. The Plan does not adequately evaluate the impacts of increased competition for water in our community. I154-8

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input. I154-9

Sincerely,

Meghan Elizabeth McMonigle

—

Meghan McMonigle

KTLA 5 Technology Segment Producer
 5800 Sunset Blvd. Los Angeles, CA 90028 | *Office: 323-460-5520 | Cell: 323-371-4042*



| | |
|-------------------------------|------------------------------------------------------|
| <p>Letter I145</p> | <p>Meghan McMonigle February 27, 2020</p> |
|-------------------------------|------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I145-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I145-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I145-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I145-4 Refer to response to comment I9-5 regarding the analysis of social and economic issues in the draft EIR.
- I145-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I145-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I145-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I145-8 Refer to response to comment I9-9 regarding water supply.
- I145-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: Meghan McMonigle <meghancmcmonigle@gmail.com>
Sent: Thursday, February 27, 2020 2:18 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Bev Denicola <de.nicola@cox.net>
Subject: General Plan/EIR

Letter
I146

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today’s presentation by Ventura County Planning staff on the 2040 General Plan EIR.

I146-1

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time, ” *(emphasis added)*. All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

I146-2

February 19, 2020



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County’s Zoning Ordinance and the County’s minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an “Agricultural Mitigation Measure” through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park’s proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, “the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter.”

I146-2
cont.

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses “indirect impacts” that will occur as a result of implementing the 2040 General Plan as “less than significant.”

Page 4.2-13 of the EIR states “AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production.”

Page 4.2-17 of the EIR states: “Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...**Therefore, the potential for conflicts would be minimal. This impact would be less than significant**” (*emphasis added*).

I146-3

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural



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Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

I146-4

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

I146-5
cont.

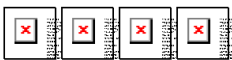
But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

I146-6

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

I146-7

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

I146-7
cont.

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director



In support of this letter-
Meghan Chambers McMonigle

Meghan McMonigle

KTLA 5 Technology Segment Producer
5800 Sunset Blvd. Los Angeles, CA 90028 | *Office: 323-460-5520 | Cell: 323-371-4042*



| | |
|------------------------|----------------------------------------------|
| Letter I146 | Meghan McMonigle February 27, 2020 |
|------------------------|----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter A13. The responses below provide cross references to the portions of Letter A13 where responses to the same comments have already been provided.

- I146-1 The comment describes that the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) has provided the following comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR “that CoLAB believes will negatively impact the viability of local agriculture.” This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I146-2 Refer to response to comment A13-7 and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I146-3 Refer to response to comment A13-8 regarding the Right-to-Farm Ordinance and land use conflicts.
- I146-4 Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.
- I146-5 Refer to response to comment A13-10 regarding 2040 General Plan Policies AG-5.2 and AG-5.3.
- I146-6 Refer to response to comment A13-11 regarding water resources and loss of topsoil.
- I146-7 Refer to response to comment A13-12 regarding mitigation measure suggestions.

FEB 28 2020

Letter
I147

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I147-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability

I147-2

to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I147-2
cont.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I147-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I147-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I147-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I147-6

The Draft EIR for the 2040 General plan does not provide

I147-7

adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

1147-7
cont.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

1147-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

1147-9

Sincerely,



| | |
|------------------------|------------------------------------------------|
| Letter I147 | Melinda Ann Barrow February 25, 2020 |
|------------------------|------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I147-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I147-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I147-3 Refer to response to comment I4-3 regarding water availability and cost.
- I147-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I147-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I147-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I147-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I147-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I147-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

FEB 27 '20 AM 9:00

Letter
I148

Michael Diacos
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I148-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I148-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I148-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I148-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I148-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I148-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I148-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I148-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I148-9

Sincerely,


Michael Diacos

| | |
|------------------------|--------------------------------------------|
| Letter I148 | Michael Diacos February 24, 2020 |
|------------------------|--------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I148-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I148-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I148-3 Refer to response to comment I4-3 regarding water availability and cost.
- I148-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I148-5 Refer to response to comment I4-5 regarding the commenter’s request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I148-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I148-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I148-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I148-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

FEB 28 2020

Letter
1149

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

1149-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability

1149-2

to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I 1149-2
cont.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I 1149-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I 1149-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I 1149-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I 1149-6

The Draft EIR for the 2040 General plan does not provide

I 1149-7

adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I149-7
cont.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I149-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I149-9

Sincerely,



| | |
|------------------------|-----------------------------------------------|
| Letter I149 | Michael Fairbanks February 25, 2020 |
|------------------------|-----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I149-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I149-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I149-3 Refer to response to comment I4-3 regarding water availability and cost.
- I149-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I149-5 Refer to response to comment I4-5 regarding the commenter’s request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I149-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I149-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I149-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I149-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Michael Hayes <michael@michaelhayes.la>

Sent: Thursday, February 27, 2020 3:13 PM

To: Bennett, Steve <Steve.Bennett@ventura.org>; Parks, Linda <Linda.Parks@ventura.org>; Long, Kelly <kelly.long@ventura.org>; Supervisor Huber <Supervisor.Huber@ventura.org>; Zaragoza, John <John.Zaragoza@ventura.org>; cheitmann@cityofventura.ca.gov; mlavere@cityofventura.ca.gov; srubalcava@cityofventura.ca.gov; jfriedman@cityofventura.ca.gov; lbrown@cityofventura.ca.gov; citymanager@cityofventura.ca.gov

Subject: Ventura County Planning

Letter
I150

Hello Ventura leaders,

My name is Michael Hayes, and over the weekend I had the familiar, yet infrequent pleasure of spending time in Ventura county; coming from what can often seem like the other side of the state (Los Angeles) Ventura county isn't always conveniently accessible.. I wish I could more easily and regularly enjoy the splendors of Ventura county; but that's not the point of this message. Unfortunately, the motivation for this message is about my concern with what I had seen over the weekend.

Nobody wants unsolicited advice or critique, so I apologize for being obtuse, if not flat-out disrespectful; but I feel so strongly about these issues that it really frustrates me to think about the colossal planning mistakes that have taken place in America over the past 60 years, mistakes that I really *really* hope Ventura will not continue to make. That grand failure of American society is truly senseless and completely vapid suburban sprawl.

Without making this some sort of Manifesto... a brief recap of the default planning guidelines introduced in the late '50s. Sprawl has negatively affected the health of, now car-dependent, Americans; the air quality of the, now-smog filled, skies, the foundation of low density residential creates an exhaustive network of financially burdensome infrastructure and public services without an adequate tax base to properly maintain itself; siphoning funds from more essential civic services. Sprawl prohibits the ability to provide affordable housing in job rich areas, it disconnects people from a sense of place and it separates American's into political factions. Controversial or looney as it may seem, I truly believe SPRAWL is the single largest cause of a deflated American Spirit and the harbinger of collapsed American Ideals.

Anyone reading this message that has been in California for at least ~20 years has witnessed the insatiable consumption and the destruction of such beautiful and fertile land. In my short lifetime, I've seen Oxnard, Camarillo and Ventura transform from agrarian paradises and small town havens into an extension of West Covina or San Bernardino. Farms, Bungalows, Main streets, paved over and replaced by beige stucco boxes, banal shopping centers and other characterless vestiges of suburban sprawl. Already frustrated beyond words about the approval and early stage construction of LA County's "Newhall Ranch" I drove along the 126 to see a handful of new Riverside County-esque subdivisions, tracts of homes, the *United States of Generica*-style shopping centers that follow them, freeway-width "roads" and of course the suffocating and unavoidable traffic that comes in thereafter.

I spent an entire day just walking around Fillmore and Santa Paula enjoying the "small town" feel, talking with shop owners, all of whom couldn't believe how the area was changing for the worse. The city and county websites are full of pictures of the area's rich agricultural past, "Last Small Town..." yet at the same time, you're willing to pave over that history and beauty with some garbage cheap homes from KB Homes or Lennar?

I know Ojai as being the quintessential success story for staving off the plague of sprawl and its associated "Generica" monotony. It's a destination within the region precisely because it's different, it's charming, it's human-oriented, it embraces its agricultural roots. So, why isn't the rest of the county following in those footsteps? What is the recourse for city and county to prevent the spread of sprawl and the destruction of the otherwise beautiful landscapes? And most importantly, is this even a priority for leadership?

I150-1

If this type of "growth" is at all a concern, there are really only 2 options. A) halting all growth or B) changing the way in which we grow. A moratorium would seem like the easy route, but a foolish decision in the long run. The real solution is hidden in planning guidelines of yesteryear; the solution is in higher density, village-like, transit oriented communities. Places that are walkable and are rich with character, individuality and some distinguishable uniqueness. A convenient and manageable concentration of people that create an identity and a community. Luckily for Ventura county, its cities and towns already possess many of these qualities, I'd hope that they expand on that identity, rather than erase it.

The foundation for any *great* city, town or village is formed by its accessibility and mobility. After 60 years of planning exclusively for car mobility, we've witnessed its major shortcomings. If there were one piece of transformative infrastructure that could drastically improve access, convenience, quality of life, economic opportunity and preserve open space in Ventura it would be reactivating the rail ROW from Ventura to Piru and operating a Light Rail (perhaps similar to San Diego's Sprinter or LA's E line) this vein could have the capacity to alleviate transit woes for thousands of residents / commuters and contain and concentrate manageable growth around stations allowing for characterful neighborhoods to flourish.

There is so much to love and enjoy about Ventura County and the cities within it, I'd hope those characteristics that make it lovable are preserved, cherished and expanded upon, not dismantled and paved over like the rest of southern california.

All the best and thank you for your commitment to bettering the lives of the people you represent!

-m

I150-1
cont.

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| Letter I150 | Michael Hayes February 27, 2020 |
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I150-1 The comment addresses County planning and the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: mike poland <polandml@hotmail.com>
Sent: Tuesday, February 25, 2020 5:17 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

Letter
I151

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Board of Supervisors,

The more I investigate this document, the more problems become apparent to me.

With this proposal, Ventura County has failed to adequately analyze for impacts to farmland.

For example: the EIR has policies that will create and expand the bike paths and pedestrian trails throughout the County, which is a good thing. However, some of these proposed areas are in or adjacent to existing ag land and the County failed to analyze potential impacts on this ag land from these projects.

These projects will result in the direct loss of ag land in at least two ways. First, by paving a bike lane or path and second, the indirect loss of ag land through increasing public access to working ag areas which will encourage and increase theft, vandalism and trespassing.

In addition, as the public has more access to working farmlands, there will be an increase of complaints of odors, dust, noise, etc.

Ventura County agriculture produced about \$2 Billion in product in 2018 – it is vital to our local economy. The County must protect our local agriculture land from encroachment caused by increasing public access across these working farmlands. Please propose a mitigation measure to establish a set-back (on non-ag land) that prevents the construction of any bike path network or public trail on or adjacent to ag lands.

I look forward to hearing your thoughtful response.

Thank you,

Michael L. Poland

Sent from [Mail](#) for Windows 10

I151-1

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|------------------------|-----------------------------------------------|
| Letter I151 | Michael L. Poland February 25, 2020 |
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I151-1

The comment states that the draft EIR does not adequately analyze potential impacts to farmland, and provides an example of indirect impacts to farmland related to the development/expansion of adjacent bike paths and pedestrian trails. Refer to response to comment O7-8 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.

The commenter also suggests “a mitigation measure to establish a set-back (on non-ag land) that prevents the construction of any bike path network or public trail on or adjacent to ag lands.” As explained in this response to comment O7-8, Policy CTM-3.5 states that “[t]he County shall plan for bicycle network connectivity in rural, agricultural, and open space areas in a way that supports and complements business and agricultural activities in those areas.” This and other policies would be implemented through Implementation Program L, Master Bicycle Network Plan. Further, Policy LU-6.1 requires non-agricultural land uses adjacent to agricultural uses to incorporate adequate buffers to limit conflicts with adjoining agricultural operations. The development would be required to implement buffers, and this requirement would not require buffers to be created by existing agricultural operations. Because the requirements of the proposed mitigation measure are already components of the 2040 General Plan, no revisions to the draft EIR have been made in response to this comment.



Letter
I152

Board of Supervisors:

My Name is Michael Penrod and I have worked in commercial/ residential real estate development and land use advising for many years in Ventura County. My family and I love Ventura County and are so lucky to call such a beautiful place our home. However, we have some worries regarding the current Draft EIR and feel that changes need to be implemented in order to better serve Ventura County.

I152-1

As someone who advises landowners on land use, I can confidently say that there is a substantial amount of evidence to why the document is not ready for prime time. The DEIR has not been given the thorough consideration it deserves and is resulting in an incomplete policy analysis. Though I understand the efforts to mitigate serious challenges facing Ventura County, this document as it is currently is incomplete. The housing element is not even completed, yet the DEIR is being pushed out.

I152-2

The Ag conservation policy as proposed in the General Plan Update is not only infeasible, it is overstepping the intent of SOAR that has been voter approved twice in the last over 25 years. If this policy was in place, very few projects would have been able to navigate the purchase of development rights. It creates an inflated land value that will eliminate any economic returns for smart and quality growth. Basically, it could double the land costs which will only punish the residents by greatly increasing housing costs. We have, in the past, attempted to seek potential land owners that would consider selling their future development rights and was not able find one land owner that would even consider the concept. CEQA requires that any mitigation measure must be feasible and reasonable. This is neither.

I152-3

The future of Ventura is greatly hindered based on the lack of housing, both market rate and affordable. This impacts all employers so much that a significant amount of very good companies have and continue to relocate out of our County for economic reasons. Any communities that don't grow gentrifies and eventually stagnates to the point of fiscal disaster for the local governments. Just look at the City of Santa Paula that didn't expand for over 30 years and the financial impact on the City and it's services for their residents.

I152-4

This is a very serious and important document that the County should be taking the appropriate amount of time to ensure it is whole and complete.

I152-5

860 Hampshire Rd., Ste. U, Westlake Village, CA 91361 ■ Phone: 805-373-8808 ■ Fax: 805-379-1219 ■ www.parkstoneinc.com

Please revise and recirculate the draft to identify these issues and make the assumptions clearer. Thank you in advance for considering my concerns.

I 152-5
cont.



Michael Penrod, Partner
Parkstone Companies

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| Letter I152 | Michael Penrod February 25, 2020 |
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- I152-1 The commenter’s background and concerns regarding the draft EIR are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I152-2 This comment regarding the adequacy of the draft EIR is noted. Although the comment suggests that there is “substantial evidence” indicating an “incomplete policy analysis,” no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided. Regarding the timing of the draft EIR and the Housing Element, refer to Master Response MR-3 for discussion of why the draft EIR correctly excludes discussion and analysis of the County’s projected housing needs for the 2020 Regional Housing Needs Assessment allocation and 2021-2029 Housing Element update.
- I152-3 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I152-4 The comment addresses existing housing conditions and anticipated economic implications of restricted growth. It is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer to Section 4.11, “Population and Housing,” in the draft EIR for a discussion of the potential for the 2040 General Plan to result in insufficient housing supply and Master Response MR-3 for a discussion of future update to the Housing Element.
- I152-5 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Michael Shapiro <michael@michaeljshapiro.com>
Sent: Saturday, February 22, 2020 12:32 PM
To: General Plan Update
Subject: My Comments Re: County's Draft Climate Action portion of the proposed County General Plan

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|------------------------|
| Letter I153 |
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To Whom It May Concern -

I must strongly express my objections to the latest draft of Ventura County's Draft Climate Action Plan part of the proposed new General Plan. Frankly - this draft is shockingly flawed given the ample input that has already been presented by countless non-profit organizations and citizens who have been participating in the meetings sponsored by the County in order to build and organize a broad consensus of agreement. I153-1

One of the most striking parts was a chart that illustrated where the County foresaw future oil & gas extraction projects but — tragically — omitted any similar chart/schematic for where foresaw significant set-aside spaces for where an ambitious (for example) Green Industrial Park might be developed to manufacture alternative, clean-green energy-producing jobs, i.e., wind-turbines and/or solar-panel manufacturing. That omission is preposterous given the level of alarm bells already sounding that warn us about climate change in general, and how Ventura County specifically has been “heating-up” faster than all the other California counties. I153-2

No where in the current draft has the “consumption side” of oil and gas and the necessity that significant reduction of same must be taken into account. It simply can't be “business as usual” when it comes to the future consumption and use of dangerous fossil fuels. And if significant consumption reduction is favored, then that goal should be reflected in the amount of future oil and gas production - which must also have significant reductions and certainly not maintain current levels or even worse — expand output. This is dangerous and unacceptable to any citizen who cares about combatting climate change. I153-3
I153-4

Finally — no where did I read that the so-called FIVE POUND LIMIT for the Ojai Valley was being preserved. The health and welfare of the Ojai Valley depends on this limit to be maintained and enforced throughout the duration of any new 20-Year General Plan. To do otherwise could be considered criminal and would signal an obvious intentional effort to ignore the health and welfare of the County citizens that choose to reside in the greater Ojai Valley. I153-5

These above are but several of the deficiencies discovered in the latest County Draft of the new Twenty-Year General Plan. Your draft seems to me to be entirely incomplete and inadequate and it's painfully obvious that it greatly favors the oil and gas extraction industry when it comes to combatting adverse local and global climate changes now taking place at an alarmingly accelerating rate. We must do much-much better! Back to the drawing boards! I153-6

Sincerely -
 Michael J. Shapiro
 805-889-7105

Michael Shapiro
michael@michaeljshapiro.com

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|------------------------|---------------------------------------------|
| Letter I153 | Michael Shapiro February 22, 2020 |
|------------------------|---------------------------------------------|

- I153-1 This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I153-2 The commenter indicates that the draft EIR should foresee future significant set-aside spaces for green industrial parks or other clean-green energy-producing jobs. Policies which identify set-aside spaces in the unincorporated County for green industrial parks or other clean-green energy-producing jobs are not a component of the project under evaluation (i.e., the 2040 General Plan). CEQA requires evaluation of the environmental effects of a project; consequently, potential policies that are not a component of the project under evaluation are not required to be evaluated in the EIR. This comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I153-3 The comment asserts that the 2040 General Plan does not address the consumption of fossil fuels. This is inaccurate. Refer to Master Response MR-1 for additional information pertaining to the development of the 2040 General Plan’s greenhouse gas inventory, policies, and programs. The draft EIR includes a detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas emissions in the county (pages 4.8-37 to 4.8-45), many of which relate to the consumption of oil and gas.
- I153-4 Refer to Master Response MR-4, Sections MR-4.J Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations), MR-4.A County’s Authority to Regulate Oil and Gas Development, and MR-4.K Effects Outside the Study Area, regarding the findings and conclusions related to phasing out oil and gas operations, the County authority to regulate oil and gas operations, and effects outside of the study area.
- I153-5 The comment states there is no evidence that the 2040 General Plan would “preserve” the 5-pound-per-day limit on reactive organic gases and oxides of nitrogen for the Ojai Valley. As discussed in the draft EIR and explained further in response to comment O20-14, the comment refers to a threshold of significance for daily reactive organic gases and nitrogen oxide emissions in the Ojai Valley which is referenced in the Ojai Valley Area Plan. This threshold, which applies to sources that are not permitted by the Ventura County Air Pollution Control District, was added to the Ventura County Air Pollution Control District’s Air Quality Assessment Guidelines in 1989 and the reference to this threshold was thereafter added to the Ojai Valley Area Plan in 1995. The 2040 General Plan would not change this threshold.

The comment is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I153-6 This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: Shelley DuPratt <shdupratt@gmail.com>
Sent: Sunday, February 23, 2020 7:51 AM
To: General Plan Update
Subject: General Plan 2040

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| Letter I154 |
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To Whom It May Concern,

Climate change is here, its effects are already evident in out county. The General Plan update fails to provide enough emissions reduction to meet the state-mandated goals. A robust plan, with the help of technical and scientific input, needs to be included for the 2040 General Plan, including a strong defense of the five pound air emissions limit for the Ojai Valley.

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| I154 |
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Sincerely,
 Michele DuPratt
 Ojai, CA

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|------------------------|---------------------------------------------|
| Letter I154 | Michele DuPratt February 23, 2020 |
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I154-1 This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer to Master Response MR-1 for a discussion of the policies in the 2040 General Plan and the factors that restrict the County’s ability to ensure that State goals will be met.

As discussed in the draft EIR and explained further in response to comment O20-14, the comment refers to a threshold of significance for daily reactive organic gas and oxides of nitrogen emissions in the Ojai Valley which is referenced in the Ojai Valley Area Plan. This threshold, which applies to sources that are not permitted by the Ventura County Air Pollution Control District, was added to the Ventura County Air Pollution Control District’s Air Quality Assessment Guidelines in 1989 and the reference to this threshold was thereafter added to the Ojai Valley Area Plan in 1995. The 2040 General Plan would not change this threshold.

From: Michelle Leahy <michelleleahy@hotmail.com>
Sent: Thursday, February 27, 2020 5:02 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: draft EIR

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|------------------------|
| Letter I155 |
|------------------------|

We are in a climate emergency. Humanity is facing an existential threat.

In October 2018, the United Nations Intergovernmental Panel on Climate Change sounded the alarm bells in a dire report, warning that governments everywhere, much take "rapid, far-reaching and unprecedented changes in all aspects of society" to dramatically cut emissions by 2030 if we hope to avoid climate catastrophe. And by all governments, that includes Ventura County. So we've got just ten years, and likely even less than that, since more sobering findings regarding tipping points and feedback loops have come out in recent months. As Bill McKibben puts it, "Winning slowly is the same as losing" when it comes to climate change.

Since we neglected to take the necessary actions decades ago, we no longer have the luxury to take small incremental steps; the magnitude and urgency of the crisis requires big, bold, swift action. It means no more business as usual, no more kicking the can down the road, no more catering to fossil fuel interests, no more short-term thinking, no more excuses. It means coming together and working toward our collective common good. It means a moon shot, putting a stake in the ground and committing to achieving it.

The good news is that solutions are readily available, we just need to start acting on them.

The current draft EIR of the general plan update does not meet the urgency of action that the climate crisis demands. All policy decisions must be seen through a climate impact and mitigation lens.

I155-1

- Michelle Ellison, Ojai

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|------------------------|----------------------------------------------|
| Letter I155 | Michelle Ellison February 27, 2020 |
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I155-1

This comment regarding the adequacy of the 2040 General Plan and the draft EIR is noted. The comment suggests that the draft EIR "does not meet the urgency of action that the climate crisis demands." The draft EIR provides a California Environmental Quality Act-compliant analysis of the potential environmental effects of the 2040 General Plan. Refer to Master Response MR-1 for discussion of the draft EIR's detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

From: Michelle Kenney <michelle@ladolcevita1901.com>
Sent: Tuesday, February 25, 2020 3:03 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR comment

**Letter
1156**

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

To whom it may concern,

My name is Michelle Kenney. I am the head chef and owner of La Dolce Vita 1901. As a small business owner in Ventura I have concerns about some of the more flawed elements of the DEIR as it currently is written that lack proper analysis. In my business I must be thorough and have a solid understanding of the laws that govern my business. I ask that this document hold that same standard.

I156-1

This DEIR is based on incomplete policy analysis, attempts to hide important information in violation of CEQA, and fails to recognize when policies are preempted by State and Federal law. The DEIR attempts to hide important information and fails to support its claims with credible evidence. The DEIR currently buries required information that forms the cornerstone of its analyses in a 1,000 plus page appendix. This is obviously in violation of CEQA.

I156-2

I want this DEIR to be open and accessible and not hide information. Please make these corrections for recirculation.

I156-3

Thank you,
Michelle Kenney
Owner, Executive Chef

The Place To Be Newsletter

La Dolce Vita 1901

RESTAURANT - CATERING - SPEAKEASY
Heritage Square
740 South B. Street | Oxnard, CA 93030
(805) 486-6878 | LaDolceVita1901.com



| | |
|------------------------|---------------------------------------------|
| Letter I156 | Michelle Kenney February 25, 2020 |
|------------------------|---------------------------------------------|

- I156-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

- I156-2 Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.

- I156-3 Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Mike Maulhardt <mike.maulhardt@gmail.com>
Sent: Tuesday, February 25, 2020 2:55 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Michael Joseph Maulhardt <mike.maulhardt@gmail.com>
Subject: 2040 General Plan Draft EIR Comment

Letter
1157

Dear Ms. Curtis,

I understand the county did not conduct the CEQA required analysis for impacts that will hamper access to petroleum reserves.

CEQA is very clear that the intent of the impact analysis required here is to evaluate the potential impact of the General Plan on the future access to petroleum reserves.

Yet the County does not do this. Instead, the County provides a long discussion of the potential health and safety impacts that may occur near oil and gas production. While this "optional", not required "analysis is admirable, the County has failed to comply with CEQA requirements for this analysis. The County must redo this analysis, this time following CEQA intent, and the EIR must be recirculated.

The County must conduct an analysis that meets the CEQA standard by evaluating the impact of future development under the General Plan on the ability to access reserves. The analysis outlined in the EIR has no bearing as the county failed to meet the CEQA standard.

I157-1

Mike Maulhardt
Gus H. Maulhardt Associates
Since 1886

--
Mike Maulhardt
4213 Dogwood Place
Davis, CA 95618
530-758-3813 home
530-304-4459 cell
mike.maulhardt@gmail.com

| | |
|------------------------|--------------------------------------------|
| Letter I157 | Mike Maulhardt February 25, 2020 |
|------------------------|--------------------------------------------|

I157-1

Refer to Master Response MR-4, Sections MR-4.L Oil Reserves, regarding the findings and conclusions related to oil reserves in the County. The commenter asserts that the draft EIR does not include analysis for impacts that will hamper access to petroleum reserves. The draft EIR analyzes implementation of the 2040 General Plan for Impact 4.12-3: Result in Development on or Adjacent to Existing Petroleum Resources Extraction Sites or Areas Where Petroleum Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Access to the Resources (4.12-11), and Impact 4.12-4: Result in the Loss of Availability of a Known Petroleum Resource That Would Be of Value to the Region and the Residents of the State (4.12-22).

The draft EIR Section 4.12.2 Environmental Impacts and Mitigation Measures (page 4.12-6) indicates that “the evaluation of impacts on petroleum resources is based on the petroleum resources map (Figure 8-10 in the Background Report) and well data published by the State Division of Oil, Gas, and Geothermal Resources. These resources were compared to the proposed land use diagram in the geographic information system software to assess the overall proximity of potential land use changes to identified resource areas (i.e., oil fields and wells). Consistent with ISAG Section 3b, any land use designation that could result in development on or immediately adjacent to any known petroleum resource area, or adjacent to a principal access road to a property with an existing use permit for petroleum exploration and production, is considered to have the potential to hamper or preclude access to petroleum resources. The evaluation is program-level and identifies potential effects of the 2040 General Plan relative to existing conditions, based on reasonable inference and using readily available information.”

The draft EIR concludes that Policy COS-7.2 Oil Well Distance Criteria. Policy COS-7.2 could theoretically affect local oil and gas exports and increase the reliance on imports from outside of the 2040 General Plan area. Furthermore, there are no actions or policies that the County could feasibly mandate to fully reduce the impact that Policy COS 7.2 would have on hampering or precluding access to petroleum resources and would therefore remain significant and unavoidable for Impact 4.12-3: Result in Development on or Adjacent to Existing Petroleum Resources Extraction Sites or Areas Where Petroleum Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Access to the Resources (4.12-22).

The draft EIR also concludes that Policies COS-7.7 Limited Conveyance for Oil and Produced Water and COS-7.8 Limited Gas Collection, Use, and Disposal could result in the loss of known petroleum resources of value to the region and the State because Policies COS-7.7 and COS-7.8 would mandate infrastructure that may be technologically or economically infeasible to install. However, based on the analysis the draft EIR, the volume of loss for this petroleum resource would

likely be at a smaller scale and concentrated on oil operators located outside of a two-mile radius of a major oil or gas transmission pipeline (page 4.12-31). The draft EIR concludes that the policies would nonetheless render a substantial quantity of petroleum resources inaccessible and result in the loss of availability of known petroleum resources of value to the region and the State in at least some parts of the plan area (page 4.12-31). However, with implementation of draft EIR Mitigation Measure PR-2: Revised Policy COS-7.7: Limited Conveyance for Oil and Produced Water and Mitigation Measure PR-3: Revised Policy COS-7.8: Limited Gas Collection, Use, and Disposal (4.12-31), which would continue to allow the County's approval of new oil and gas wells that utilize flaring or venting of produced gas and/or trucking of oil and produced water in situations where there is no feasible alternative, Impact 4.12-4: Result in the Loss of Availability of a Known Petroleum Resource That Would Be of Value to the Region and the Residents of the State would be less than significant (4.12-32).

FEB 28 2020

Letter
1158

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020
Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I158-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value

I158-2

and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo.

These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I158-2
cont.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I158-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I158-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I158-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I158-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I158-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I158-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I158-9

Sincerely,



| | |
|------------------------|-----------------------------------------|
| Letter I158 | Molly Neely February 25, 2020 |
|------------------------|-----------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I158-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I158-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I158-3 Refer to response to comment I4-3 regarding water availability and cost.
- I158-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I158-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I158-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I158-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I158-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I158-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 7:43 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

| |
|------------------------|
| Letter I159 |
|------------------------|

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:
Monica Gray
Contact Information:
momama08@gmail.com
Comment On:
Climate Action Plan
Your Comment:

Please do more to help reduce greenhouse gas emissions and food waste. Focus on regenerative agriculture and creating more incentives for people to take advantage of veteran farmer programs. Feed hungry people, reduce food waste, and incentivize volunteering to glean fruit with Food Forward and Food Share by County employees. Please support " Get Fresh VC," my effort to feed hungry college students, reduce food waste, and teach valuable skills in food recovery. Rotting food does us no good, and we can recapture this produce and restore value and create community goodwill at the same time.

I159-1

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|------------------------|-----------------------------------------|
| Letter I159 | Monica Gray February 26, 2020 |
|------------------------|-----------------------------------------|

I159-1 The comment addresses the regenerative agriculture and efforts to reduce food waste and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

FEB 28 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

Letter
1160

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I160-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was

I160-2

very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I160-2
cont.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I160-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I160-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I160-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation

I160-6

measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I160-6
cont.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I160-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I160-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I160-9

Sincerely,



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| Letter I160 | Nicole Zarate February 25, 2020 |
|------------------------|-------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I160-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I160-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I160-3 Refer to response to comment I4-3 regarding water availability and cost.
- I160-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I160-5 Refer to response to comment I4-5 regarding the commenter’s request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I160-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I160-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I160-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I160-9 Refer to response to comment I4-9 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: VC2040.org Comments <alan.brown@ventura.org >
Sent: Friday, February 21, 2020 12:53 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
I161**

You have a NEW Comment

Name:

Nina Danza

Contact Information:

prettycheapjewelry@gmail.com

Comment On:

EIR and draft plan

Your Comment:

Provide a computation of all GHG emissions in ONE EASY TO FIND LOCATION OF THE PLAN. Include everything! err on the side of overestimating and not omitting sources. CHANGE GOALS and MITIGATION MEASURE SO THE State reaches carbon neutrality by 2045. THE USA IS NOT A LEADER for climate change. CALIFORNIA has that role for our country and VENTURA COUNTY has the money and citizen support to fill that role. DO NOT weaken our state with a poor climate change element in the general plan.

I I161-1
I I161-2

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| Letter I161 | Nina Danza February 21, 2020 |
|------------------------|----------------------------------------|

- I161-1 The comment requests a computation of greenhouse gas emissions in one location, and also suggests that goals and mitigation measures be changed so the state reaches carbon neutrality by 2045. Refer to Master Response MR-1 for additional information pertaining to the development of the 2040 General Plan’s inventory, policies, and programs.
- I161-2 The comment regarding the adequacy of climate change issues in the 2040 General Plan is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided. Also, refer to Master Response MR-1 for additional information pertaining to the development of the 2040 General Plan’s inventory, policies, and programs.

From: Noah Aist <info@email.actionnetwork.org>
Sent: Saturday, February 22, 2020 11:50 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

**Letter
I162**

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

I162-1

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I162-2

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I162-3

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Noah Aist
aistnoah8@gmail.com

| | |
|------------------------|---------------------------------------|
| Letter I162 | Noah Aist February 22, 2020 |
|------------------------|---------------------------------------|

This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I162-1 Refer to response to comment I3-1 regarding the commenter’s concerns about climate change and the draft EIR analysis.
- I162-2 Refer to response to comment I3-2 regarding the use of the most current climate change science in the draft EIR analysis.
- I162-3 Refer to response to comment I3-3 regarding suggested mitigation measures.

Noelle C Burkey
Chief Executive Officer
The Wood-Claeyssens Foundation
P.O. Box 30586
Santa Barbara CA 93130-0586

Letter
I163

February 21, 2020

Attn: RMA Planning Division
General Plan Update
800 S. Victoria Avenue, L#1740
Ventura, CA 93009-1740

Dear Planning Division:

I have serious concerns about some of the language in the Draft EIR.

Page 2-17 Ag Mitigation AG-2

Loss of farmland, requires purchase of like kind land at 2-1 ratio to be placed into a conservation easement. This is not practical. There is very little land available in the County for sale and this would be cost prohibitive. Was this the intent? Needs additional discussion and evaluation.

The EIR recognizes that "water for irrigation will be reduced as a result of the implementation of the 2040 General Plan."

Since there is no actual policy that states "we will reduce water for irrigation," the County did not analyze this impact. Although they state the impact will occur as a direct RESULT of their policies. Simply not acceptable.

The Courts are extremely clear that the EIR must analyze for all reasonably foreseeable impact that result from implementation of the "project."

Additionally, the intent of CEQA EIR impact analysis is to evaluate the potential impact of development/policies on future access to oil reserves. However, Section 4.12 primarily evaluates the impact of oil and gas production on H&S. The County's analysis does not meet the intent and standard of review for CEQA.

In summary, CEQA mandates that the EIR contain sufficient detailed data to allow the reader to understand and evaluate the County's impact analysis. The EIR and its 1,000-page Background Report and filled with errors, vague statements and outdated information. All the information is older than 2015. The maps in the EIR and Background Report are not legible and therefore not useful.

I urge you to take the time to correct and recirculate the EIR.

Thank you.

Sincerely,

Noelle C Burkey
Chief Executive Officer
The Wood-Claeyssens Foundation

I I163-1

I163-2

I163-3

I163-4

I163-5

I I163-6

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|------------------------|---------------------------------------------|
| Letter I163 | Noelle C Burkey February 21, 2020 |
|------------------------|---------------------------------------------|

- I163-1 This comment summarizes more detailed comments provided later in the letter, for which responses are provided below.

- I163-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.

- I163-3 The comment states that the draft EIR does not analyze impacts resulting from implementation of 2040 General Plan policies, including reduced water for irrigation. Refer to response to comment I4-3 regarding water availability and cost.

- I163-4 Refer to Master Response MR-4, Section MR-4.D Mitigation Measures and the Role of the Board of Supervisors, regarding the findings and conclusions related to analysis conducted, significance conclusions, and mitigations measures developed as part of the environmental review process, and Refer to Master Response MR-4, Sections MR-4.L Oil Reserves, regarding the findings and conclusions related to oil reserves in the County. The commenter asserts that the draft EIR does not include analysis for impacts on future access to oil reserves. The draft EIR analyzes implementation of the 2040 General Plan for Impact 4.12-3: Result in Development on or Adjacent to Existing Petroleum Resources Extraction Sites or Areas Where Petroleum Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Access to the Resources (4.12-11), and Impact 4.12-4: Result in the Loss of Availability of a Known Petroleum Resource That Would Be of Value to the Region and the Residents of the State (4.12-22).

The draft EIR Section 4.12.2 Environmental Impacts and Mitigation Measures (page 4.12-6) indicates that “the evaluation of impacts on petroleum resources is based on the petroleum resources map (Figure 8-10 in the Background Report) and well data published by the State Division of Oil, Gas, and Geothermal Resources. These resources were compared to the proposed land use diagram in the geographic information system software to assess the overall proximity of potential land use changes to identified resource areas (i.e., oil fields and wells). Consistent with ISAG Section 3b, any land use designation that could result in development on or immediately adjacent to any known petroleum resource area, or adjacent to a principal access road to a property with an existing use permit for petroleum exploration and production, is considered to have the potential to hamper or preclude access to petroleum resources. The evaluation is program-level and identifies potential effects of the 2040 General Plan relative to existing conditions, based on reasonable inference and using readily available information.”

The draft EIR concludes that Policy COS-7.2 Oil Well Distance Criteria. Policy COS-7.2 could theoretically affect local oil and gas exports and increase the reliance on imports from outside of the 2040 General Plan area. Furthermore,

there are no actions or policies that the County could feasibly mandate to fully reduce the impact that Policy COS 7.2 would have on hampering or precluding access to petroleum resources and would therefore remain significant and unavoidable for Impact 4.12-3: Result in Development on or Adjacent to Existing Petroleum Resources Extraction Sites or Areas Where Petroleum Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Access to the Resources (4.12-22).

The draft EIR also concludes that Policies COS-7.7 Limited Conveyance for Oil and Produced Water and COS-7.8 Limited Gas Collection, Use, and Disposal could result in the loss of known petroleum resources of value to the region and the State because Policies COS-7.7 and COS-7.8 would mandate infrastructure that may be technologically or economically infeasible to install. However, based on the analysis the draft EIR, the volume of loss for this petroleum resource would likely be at a smaller scale and concentrated on oil operators located outside of a two-mile radius of a major oil or gas transmission pipeline (page 4.12-31). The draft EIR concludes that the policies would nonetheless render a substantial quantity of petroleum resources inaccessible and result in the loss of availability of known petroleum resources of value to the region and the State in at least some parts of the plan area (page 4.12-31). However, with implementation of draft EIR Mitigation Measure PR-2: Revised Policy COS-7.7: Limited Conveyance for Oil and Produced Water and Mitigation Measure PR-3: Revised Policy COS-7.8: Limited Gas Collection, Use, and Disposal (4.12-31), which would continue to allow the County's approval of new oil and gas wells that utilize flaring or venting of produced gas and/or trucking of oil and produced water in situations where there is no feasible alternative, Impact 4.12-4: Result in the Loss of Availability of a Known Petroleum Resource That Would Be of Value to the Region and the Residents of the State would be less than significant (4.12-32).

- I163-5 The commenter's opinion about the accuracy and level of detail in the Background Report are noted. Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I163-6 Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Norene Charnofsky <ncharnofsky@gmail.com>
Sent: Monday, February 24, 2020 12:51 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: TOTALLY FRUSTRATED TRYING TO SUBMIT A COMMENT ONLINE!!!

| |
|------------------------|
| Letter I164 |
|------------------------|

Dear Ms. Curtis:

I have written a comment about the Climate Action Plan proposed in the General Plan Update and tried mightily to submit it as an online comment. I have repeatedly failed in cracking the code that proves I'm human (I guess that is what it's trying to prove.). I keep coming up "invalid".

I164-1

HOW FRUSTRATING. Now I have to write the message all over again. I hope you can help me get it to the Board of Supervisors or to whomever it should go to! Thank you so much. **Someone should check that code. I bet a lot of people have just given up!!!**

TO WHOM IT MAY CONCERN;

Regarding the Climate Action Plan in the General Plan Update, I agree with the comments submitted by the organization CFROG.

I164-2

Especially, I feel that the Climate Action Plan policies must result in measurable, enforceable reductions in pollution, sufficient to meet the climate goals of our State. If the Climate Action Plan is vague, voluntary or not enforceable, future projects might "skate by" and avoid proper environmental review.

The Climate Action Plan and corresponding policies in the General Plan must require specific, measurable, enforceable reductions in greenhouse gas emissions.

Thank you for your attention to this crucially important matter!

Sincerely,
 Norene Charnofsky
 10180 Norwalk St.
 Ventura, CA 93004

| | |
|------------------------|-----------------------------------------------|
| Letter I164 | Norene Charnofsky February 24, 2020 |
|------------------------|-----------------------------------------------|

- I164-1 The comment indicating trouble submitting online comments on the draft EIR is noted. However, this comment has been received, and is responded to in this final EIR.

- I164-2 The commenting individual's agreement with the Climate First: Replacing Oil & Gas comment letter is noted; see responses to Letter O20. This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. Refer to Master Response MR-1 for discussion of the draft EIR's detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions.

Nova Clite
 275 N. Kalorama Street, #303A
 Ventura, CA 93001

Letter
I165

February 24, 2020

RE: Comments on Ventura County draft General Plan, Draft EIR, Draft Climate Action Plan

According to a recent study of data by the Washington Post, with an average temperature increase of 2.6 degrees Celsius since preindustrial times, Ventura ranks as the fastest-warming county in the Lower 48 states. It is critical that Ventura County gets its climate policies right in the General Plan Update which extends to 2040 – if the proposed plan is accepted as is, we’ll be getting nothing less than a guarantee for a climate crisis by the next plan update.

I165-1

My comments are about specific issues related to the oil and gas industry operations in our County that the draft plan and EIR inadequately address, or completely overlook.

Flaring at Oil and Gas Facilities

Flaring is a poorly regulated and controlled process that releases toxic and greenhouse gases into the atmosphere. The draft EIR puts substantial weight on the costs to industry for controlling flaring, including alternative means for transporting the gases. The draft EIR *DOES NOT CONSIDER* the costs and societal impacts of climate change of allowing greenhouse and toxic gas releases from oil and gas facilities. Rather, the draft EIR treats climate change mitigation as a nice wish-list item best ignored, perhaps just too complicated for the authors to consider seriously.

I165-2

Methane Releases Not Addressed:

The draft EIR does not consider the potential impacts, including the public health and economic impacts, due to climate change forcing by releases of greenhouse gases to the atmosphere. Climate change mitigation is treated as a nice but non-consequential “wish list” item rather than a real and necessary goal for long-term management of oil and gas production in the County. The EIR considers short-term costs to oil producers more important than the future insurmountable costs that would be incurred by all Ventura County residents in the face of uncontrolled warming, drought, and sea level rise (proposed revised policies COS-7.7 and COS-7.8). The Ventura County Climate Action Plan must include immediate, robust action to mitigate climate change. Stringent controls on proposed new oil and gas well development should be imposed to prevent release of greenhouse gases, prevent flaring, require monitoring and mitigation of methane releases. To do less is to place the short-term profits of a non-sustainable extractive industry over the long-term health and well-being of Ventura and State of California residents.

I165-3

According to NASA’s Jet Propulsion Laboratory’s methane source finder website (<https://earthdata.nasa.gov/esds/competitive-programs/access/msf>), based on data collected during State of California funded fly-over surveys during 2016-2017, Ventura County is a significant source of methane leaks to the atmosphere. Methane is 85 times more potent at trapping heat in the atmosphere as compared to carbon dioxide, therefore the County’s Climate Action Plan must address methane leaks

I165-4

Comments on Ventura County draft General Plan, Draft EIR, Draft Climate Action Plan
February 24, 2020

to protect human health and the environment. Ventura County methane sources include oil and gas production wellfields and related facilities as well as landfills.

The draft Environmental Impact Report mentions methane once and with no consideration of the climate change impact or the need to mitigate this potent greenhouse gas. The State-funded NASA data were available to the consultant writing the EIR; there is absolutely no excuse to ignore these data in the EIR or CAP. All potential methane leak sources within Ventura County must be inventoried and addressed as part of the Climate Action Plan, including permit modifications requiring monitoring, leak mitigation action requirements, strict deadlines for addressing methane leaks, and reporting to authorities and the general public.

I165-4
cocnt.

Abandoned Oil/Gas Wells and Cost to Taxpayers Not Addressed

Abandoned oil and gas wells are a big problem in the State of California and Ventura County that will cost the taxpayer millions of dollars. In its report released January 23, 2020 (<https://ccst.us/reports/orphan-wells-in-california/>), the California Council on Science and Technology (CCST) announced:

“Responding to a request from the Division of Oil, Gas, and Geothermal Resources, now the California Geologic Energy Management Division (CalGEM), under the California Department of Conservation, the California Council on Science and Technology (CCST) conducted a study entitled “Orphan Wells in California: An Initial Assessment of the State’s Potential Liabilities to Plug and Decommission Orphan Oil and Gas Wells.” Orphan wells are wells that have no known responsible operator or no financially viable operator capable of plugging the well and decommissioning the well’s production facilities. An active or idle well can potentially become an orphan well when deserted by a financially insolvent operator. Responsibilities for plugging and decommissioning these wells may ultimately fall to the State. As the United States’ fourth largest producer of crude oil and fifteenth of natural gas, with approximately 107,000 active and idle wells in the state, the issue of ensuring that resources exist to properly plug and decommission every well is significant for California.

I165-5

The CCST report uses broad categorizations to screen for wells that may already be orphaned or that are at high risk of becoming orphan wells soon. The analysis finds that 5,540 wells in California may already have no viable operator, and that the potential net liability for the State appears to be about \$500 million, after subtracting available bonds. An additional 69,425 economically marginal and idle wells could become orphaned in the future.”

Abandoned wells pose a significant potential source of greenhouse emissions, toxic and flammable gas leaks, groundwater pollution, and other hazards. The LA Times and Center for Public Integrity published their investigation into this matter on February 6, 2020 (<https://www.latimes.com/projects/california-oil-well-drilling-idle-cleanup/#nt=lik0promoLarge-7030col1-7030col1>).

“The Times/Public Integrity investigation found that bonds posted to the state by California’s seven largest drillers, which account for more than 75% of oil and gas wells, amount to about \$230, on average, for every well they must decommission. Other bonds held by federal and local regulators don’t significantly raise those amounts.

Comments on Ventura County draft General Plan, Draft EIR, Draft Climate Action Plan
February 24, 2020

By contrast, the average per-well cost for capping wells and dismantling associated surface infrastructure in California is between \$40,000 and \$152,000, depending on whether a well is in a rural or urban area, according to a study released in January by the California Council on Science and Technology.”

There is a shocking number of abandoned or idle wells in Ventura County, many near residents (see interactive map in LA Times article). The General Plan Update must include provisions requiring oil and gas producers to fully-fund and properly abandon non-producing wells. Permits should strictly prohibit the transference of low-producing wells from large profitable companies to small limited liability corporations, which subsequently file for bankruptcy. Especially alarming is the reported costs for decommissioning offshore oil facilities which will be in the billions of dollars and have long-term impacts to Ventura County’s natural environment and fisheries if not properly addressed.

The California oil industry is in rapid decline and climate change is upon us – NOW is the time to require the industry take full responsibility for oil and gas production facilities and wells for the full lifespan of the facility.

I165-5
cont.

The County Board needs to pull back the draft Climate Action Plan and enter a more robust and effective planning process to address this existential threat. The Climate Action Plan must be based on sound science, not a weak “environmental impact report” that takes better care of a dying industry than the people of Ventura County.

I165-6

Thank you,

[signed]

Nova Clite, PG (CA #8482)
nova3773@gmail.com

| | |
|------------------------|----------------------------------------|
| Letter I165 | Nova Clite February 24, 2020 |
|------------------------|----------------------------------------|

- I165-1 The comment provides introductory language and expresses concern related to climate change policies presented in the 2040 General Plan. Refer to Master Response MR-1 regarding climate policies and efficacy.

- I165-2 Refer to Master Response MR-4, Section MR-4.F, “Flaring,” regarding the findings and conclusions related to flaring in oil and gas operations. Additionally, the comment asserts that the draft EIR fails to analyze the “costs and societal impacts” of climate change. However, EIRs are not required to treat a project’s economic or social effects as significant effects on the environment (CEQA Guidelines § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. Therefore, no further response is provided.

- I165-3 Refer to Master Response MR-4, Section MR-4.J, “Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations),” regarding the findings and conclusions related to phasing out oil and gas operations.

The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I165-4 The comment cites a study by the National Aeronautics and Space Administration indicating that Ventura County is a significant source of fugitive methane and suggests that the draft EIR should have reflected this data. Refer to Master Response MR-1 regarding oil and gas operations, methane leaks, and how these activities are addressed in the greenhouse gas inventories prepared for, and policies and programs included in, the 2040 General Plan and draft EIR. Also, refer to Master Response MR-4 for additional detail pertaining to the County’s authority to regulate the oil and gas industry.

I165-5 The commenter indicates that the draft EIR does not address abandoned oil wells and cost to taxpayers and recommends that the 2040 General Plan include provisions requiring oil and gas producers to fully-fund and properly abandon non-producing wells. The 2040 General Plan includes Policy COS-7.6 Abandoned Oil and Gas Well Identification which requires that the County, “shall evaluated discretionary development to identify any abandoned oil and gas wells on a project site.” (page 6-12). Additionally, the Non-Coastal Zoning Ordinance (NCZO) Oil Development Standards Section 8107-5.6.11 - Site Restoration requires that “Within 90 days of revocation, expiration or surrender of any permit, or abandonment of the use, the permittee shall restore and revegetate the premises to as nearly its original condition as is practicable, unless otherwise requested by the landowner.” Finally, the California Geologic Energy Management Division (CalGEM) has the responsibility for approving oil and gas well activities in California and Public Resources Code section 3208.1 establishes well re-abandonment responsibility when a previously plugged and abandoned well will be impacted by planned property development of construction activities.

While NCZO Section 8107-5.6.11 requires oil and gas operators within 90 days of revocation, expiration or surrender of any permit, or abandonment of the use, restore and revegetate the premises to as nearly its original condition as is practicable, the 2040 General Plan does not include mirror policies which require oil and gas producers to fully-fund and properly abandon non-producing wells. This requirement is currently addressed NCZO Section 8107-5.6.11 This comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I165-6 This comment regarding the adequacy of the Climate Action Plan and draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

From: P. Lyn Middleton <plyn.pspace@gmail.com>
Sent: Sunday, February 23, 2020 3:36 PM
To: General Plan Update
Subject: P.LynMiddleton/Climate

Letter
I166

As a ventura county resident, here below are what I copied and what I see that needs done. Cfrog says it all. I agree! See Below. We need to do everything to help our world.

I 1166-1

Thank you, P. Lyn Middleton/ 204 N. Blanche Street / Ojai CA 93023

Buffer Requirements – The proposed buffers for locating oil and gas facilities a safe distance from schools and homes are inadequate. Studies show adverse health impacts from oil and gas facilities at distances of at least half a mile.

I 1166-2

Action Needed: Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet.

Trucking vs. Pipeline – Currently, oil and produced water from local oil wells are mostly transported by truck. Trucking creates safety hazards on county roads, exposes residents to toxic diesel pollution, and causes substantial amounts of greenhouse gas emissions. Draft General Plan Policy COS-7.7 attempts to address this problem by requiring newly permitted oil wells to use pipelines instead of trucks to transport oil and produced water.

I 1166-3

However, the DEIR attempts to undermine Policy COS-7.7, concluding that the added costs of constructing pipeline connections make this policy infeasible and may lead to a loss of petroleum resources. The DEIR proposes to allow trucking if pipelines are deemed infeasible. This would create a loophole allowing oil companies to simply claim that the cost of a pipeline connection is too high.

Action Needed: Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.

Flaring – Draft General Plan Policy COS-7.8 requires gases from all new discretionary oil and gas wells to be collected and used, or removed for sale or proper disposal, instead of being flared or vented to the atmosphere. The policy would allow flaring only in cases of emergency or for testing purposes. This is important because venting and flaring release both toxic gases and powerful climate pollutants like methane to the atmosphere.

I 1166-4

The DEIR tries to undermine this policy, too. It concludes that the added costs of treating the gas on site or constructing pipeline connections would make this requirement infeasible and may lead to a loss of petroleum resources. The DEIR instead would allow flaring if conveyance by pipeline is deemed infeasible, creating another loophole that could allow oil producers to simply claim that the cost is too high and continue with business as usual.

Action Needed: Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

Climate Action Plan – The draft General Plan and the DEIR conclude that the county’s greenhouse gas emissions would have significant impacts. However, the Climate Action Plan proposed as part of the General Plan is inadequate and will not reduce emissions in a meaningful way. Most proposed Climate Action Plan policies are vague and aspirational, relying on noncommittal assurances that the county will “encourage” and “support” change rather than clearly require measurable reductions in climate pollution.

I 1166-5

Climate Action Plan policies must result in measurable, enforceable reductions sufficient to meet California’s climate goals. This is important because the General Plan and related Climate Action Plan can be used to streamline approval of future development projects. The county may not carefully analyze the climate consequences of future projects —including discretionary oil and gas development — if those projects claim they’re consistent with the Climate Action Plan. If the Climate Action Plan consists mostly of vague, voluntary, or otherwise unenforceable policies, future projects could easily be found consistent and could evade proper environmental review.

I166-5
cont.

Action Needed: Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

Greenhouse Gas “Super-Emitters” – A recent NASA study documents that several Ventura County facilities, including oil and gas operations, are “super-emitters” of powerful climate pollutants. Stationary source emissions, including those from oil and gas operations, make up approximately 26 percent of all emissions in California. The General Plan must include strong policies to detect and curb emissions from these “super-emitters.”

I166-6

Action Needed: The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

For Ojai residents:

The 2040 General Plan must include a strong defense of the five-pound air emissions limit for the Ojai Valley. All projects subject to CEQA review must include an evaluation of the totality of air emissions in order to understand and mitigate the impacts to local air quality.

I166-7

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| Letter I166 | P. Lyn Middleton February 23, 2020 |
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I166-1 The commenting individual’s agreement with the Climate First: Replacing Oil & Gas comment letter is noted; see responses to Letter O20. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

I166-2 Refer to Master Response MR-4, Section MR-4.H, “Buffers (Setbacks),” regarding the findings and conclusions related to buffers (setbacks) for oil and gas operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I166-3 Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements,” regarding the findings and conclusions related to the conveyance of oil and produced water from oil and gas operations.

The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- I166-4 Refer to Master Response MR-4, Section MR-4.F, “Flaring,” regarding the findings and conclusions related to flaring in oil and gas operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I166-5 The comment makes assertions about the adequacy of 2040 General Plan policies to reduce greenhouse gas (GHG) emissions and requests that such policies be revised to achieve measurable, enforceable reductions in GHG emissions. Refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions. Regarding streamlining approval of future development projects consistent with the 2040 General Plan, the draft EIR includes Mitigation Measure GHG-3, which would remove the CEQA streamlining provision proposed in Program COS-EE from the 2040 General Plan and specify that the potential GHG emissions impacts of future, discretionary projects be reviewed in accordance with the most recent adopted version of the ISAGs at the time of project-level environmental review.
- I166-6 The comment addresses oil and gas operations that are “super-emitters.” Refer to Master Response MR-1 for a discussion of “super-emitters” and their representation in the GHG inventories prepared for the 2040 General Plan and draft EIR.
- I166-7 As discussed in the draft EIR and explained further in response to comment O20-14, the comment refers to a threshold of significance for daily reactive organic gas and nitrogen oxide emissions in the Ojai Valley which is referenced in the Ojai Valley Area Plan. This threshold, which applies to sources that are not permitted by the Ventura County Air Pollution Control District (VCAPCD), was added to the VCAPCD’s Air Quality Assessment Guidelines in 1989 and the reference to this threshold was thereafter added to the Ojai Valley Area Plan in 1995. The 2040 General Plan would not change this threshold. Also refer to the response to comment O20-15 for discussion regarding the types of air emissions sources addressed by VCAPCD guidance and thresholds.

From: Pamela Holley-Wilcox <info@email.actionnetwork.org>
Sent: Friday, February 21, 2020 5:30 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has impacts!

**Letter
I167**

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. We can also expect more extreme weather, producing both droughts (with associated wildfire risk) and floods.

I167-1

My family and community are counting on you to ensure that the draft EIR addresses the full scope of environmental impacts and mitigations.

This means that all greenhouse gas emissions must be counted based on the most current science.

I167-2

I favor using a wide variety of methods to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I167-3

I want an EIR that covers major climate impacts via a comprehensive and systematic plan. This is important to me because I care about the world my grandchildren will inhabit. That world will be shaped by the planning you do now.

Thank you.

Pamela Holley-Wilcox
pamelahw@icloud.com
4013 Galapagos Way
Oxnard, California 93035

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|------------------------|--------------------------------------------------|
| Letter I167 | Pamela Holley-Wilcox February 21, 2020 |
|------------------------|--------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I167-1 Refer to response to comment I3-1 regarding the commenter’s concerns about climate change and the draft EIR analysis.
- I167-2 Refer to response to comment I3-2 regarding the use of the most current climate change science in the draft EIR analysis.
- I167-3 Refer to response to comment I3-3 regarding suggested mitigation measures.

From: Pamela Klieman <info@email.actionnetwork.org>
Sent: Thursday, February 27, 2020 4:23 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

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|------------------------|
| Letter I168 |
|------------------------|

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

I168-1

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I168-2

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I168-3

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Pamela Klieman
pamela.klieman@hotmail.com
 943 Olympia Ave
 Ventura, California 93004

| | |
|------------------------|--------------------------------------------|
| Letter I168 | Pamela Klieman February 27, 2020 |
|------------------------|--------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I168-1 Refer to response to comment I3-1 regarding the commenter’s concerns about climate change and the draft EIR analysis.
- I168-2 Refer to response to comment I3-2 regarding the use of the most current climate change science in the draft EIR analysis.
- I168-3 Refer to response to comment I3-3 regarding suggested mitigation measures.

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Letter
I169

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

1202897.1

I169-1

I169-2

I169-3

I169-4

| | |
|------------------------|----------------------------------------|
| Letter I169 | Pat Peters February 27, 2020 |
|------------------------|----------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I169-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.
- I169-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.
- I169-3 Refer to response to comment I8-4 and Master Response MR-2 regarding the 2040 General Plan's consistency with the Save Open Space and Agricultural Resources initiative.
- I169-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Patrick de Nicola <patrickdenicola@gmail.com>
Sent: Thursday, February 27, 2020 4:33 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County General Plan

**Letter
I170**

Susan Curtis,

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

I170-1

Patrick Chambers de Nicola

| | |
|------------------------|--------------------------------------------------------|
| Letter I170 | Patrick Chambers de Nicola February 27, 2020 |
|------------------------|--------------------------------------------------------|

This comment letter repeats the same comments provided in Letter I6. The responses below provide cross references to the portions of Letter I6 where responses to the same comments have already been provided.

- I170-1 Refer to response to comment I6-1, which discusses setbacks from freeways and high traffic roads as a way to reduce adverse air quality effects for sensitive receptors, and the feasibility of Mitigation Measure AQ-3 (Policy HAZ-10.X).

From: Patrick de Nicola <patrickdenicola@gmail.com>
Sent: Thursday, February 27, 2020 4:35 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County General Plan comments

Letter
1171

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today’s presentation by Ventura County Planning staff on th

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agri

I171-1

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the lo into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrar Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation pro Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of t

” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

I171-2

February 19, 2020



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 2 of 4

- 7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated w increased urban-ag-interface);
- 8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of a
- 9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Z minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency For Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval p have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farm proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the pro meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's prop referenced a 2015 legal decision, City of Irvine v. County of Orange, in which the Court stated, "the sheer astronomical exp the EIR that the purchase of an agricultural conservation easement is a non-starter."

I171-2
cont.

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural lan issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory de competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significan

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflic

as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims. community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their abili production."

I171-3

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor n machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts a development...**Therefore, the potential for conflicts would be minimal. This impact would be less than significant"** (*empha*

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new a significant impact on existing agricultural



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

I171-3
cont.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatically” or “foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implement within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It i houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflict

I171-4

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘pr an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cove of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the mos of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

I171-5

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of norm

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utiliti charges.

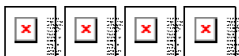
Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development al either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

I171-6

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of ind to loss of topsoil from increased wind and water erosion.

But the County fails to analyze or propose mitigation measures to address this significant impact.



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Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the i agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent non-agricultural uses. These may include:

1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged and
3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by estab land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000'

I171-7

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and Sincerely,
Louise Lampara Executive Director



In support of this letter-
Patrick Chambers de Nicola

| | |
|------------------------|--------------------------------------------------------|
| Letter I171 | Patrick Chambers de Nicola February 27, 2020 |
|------------------------|--------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter A13. The responses below provide cross references to the portions of Letter A13 where responses to the same comments have already been provided.

- I171-1 The comment describes that the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) has provided the following comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR “that CoLAB believes will negatively impact the viability of local agriculture.” This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I171-2 Refer to response to comment A13-7 and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I171-3 Refer to response to comment A13-8 regarding the Right-to-Farm Ordinance and land use conflicts.
- I171-4 Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.
- I171-5 Refer to response to comment A13-10 regarding Policy AG-5.2 and AG-5.3.
- I171-6 Refer to response to comment A13-11 regarding water resources and loss of topsoil.
- I171-7 Refer to response to comment A13-12 regarding mitigation measure suggestions.

From: Patrick de Nicola <patrickdenicola@gmail.com>
Sent: Thursday, February 27, 2020 4:30 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County General Plan

Letter
I172

Dear Ms. Curtis,

I am writing to express my concern over the flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great-great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my great grandfather, James Patrick McLoughlin he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

I172-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

I172-2

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I172-3

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.

I172-4

2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.

I172-5

3. The EIR does not adequately address the enormous “indirect impacts” that will occur as a result of implementing the General Plan, calling them “less than significant.”

I172-6

4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.

I172-7

5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

I172-8

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

I172-9

Sincerely,
Patrick de Nicola

| | |
|------------------------|-----------------------------------------------|
| Letter I172 | Patrick de Nicola February 27, 2020 |
|------------------------|-----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I172-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I172-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I172-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I172-4 Refer to response to comment I9-5 regarding the analysis of social and economic issues in the draft EIR.
- I172-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I172-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I172-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I172-8 Refer to response to comment I9-9 regarding water supply.
- I172-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: Patrick de Nicola <patrickdenicola@gmail.com>
Sent: Thursday, February 27, 2020 4:31 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on Ventura County General Plan DEIR

Letter
I173

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

I173-1

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

I173-2

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I173-3

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I173-4

I appreciate your consideration.
 Laura McAvoy

I support this letter-
 Patrick de Nicola

| | |
|---------------------------|------------------------------------------------------------------------|
| <p>Letter I173</p> | <p>Patrick de Nicola February 27, 2020</p> |
|---------------------------|------------------------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I173-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.
- I173-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.
- I173-3 Refer to Master Response MR-2 regarding the 2040 General Plan's consistency with the Save Open Space and Agricultural Resources initiative.
- I173-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

FEB 28 2020

Letter
1174

25 February 2020

RMA Planning Division
General Plan Update
800 Victoria Ave, L# 1740
Ventura, CA 93009-1740

Dear Ms. Susan Curtis;

The 2040 General Plan Environmental Impact Report (EIR) has been released for public comment. The County rushed to complete this analysis! Usually EIR's take 12-18 months or more. The County finished theirs in 6 weeks. The quality of the EIR reflects that timeline.

MAR 3 2020 PM 1:17

I174-1

There are so many extremely flawed and deficient analyses throughout the EIR, however I am a small business owner and have other responsibilities. time only permits me just a few comments.

- A) The county failed to analyze the impact of mitigation measure NOI-1 on wildfire risks. Milt Measure NOI-1 (policy HAZ-X) demands that noise reduction measures must be installed to reduce sound near sensitive receptors near roads.

This mitigation measures states "noise control measures may include increased vegetation..."

HOWEVER, the County did not evaluate the feasibility of this mitigation measure. Vegatative noise control barriers have very precise technical standards for height, weight, AND SOLID BRUSH DENSITY FROM GROUND TO TOP. The required brush density for vegetation to actually reduce noise often conflicts with Fire Code requirements for brush reduction below certain heights.

I174-2

If the County wishes to encourage vegetation noise buffers, then this mitigation measure needs to be evaluated for impacts to wildfire risk.

- B) County failed to evaluate the impact of policies that restrict energy choice on health and safety.

Policy COS-8.11:

Improve Energy Conservation Awareness. The County shall encourage community members to conserve energy and reduce greenhouse gas emissions and increase awareness about energy efficiency and climate change and adaptation.

I174-3

Further, to conduct targeted outreach to homeowners and contractors to encourage installation of electric appliances upon routine replacement of natural gas appliances and heaters and provide information regarding financial incentives.

The Background Report fails to include pertinent data regarding Ventura County's existing energy source and supply condition, which include "public safety shutdown" of large sections of the electrical grid. County residents have suffered through extended power outages that prevent the use of electrical appliances (including hot water heaters, HVAC systems, and cooking appliances).

I174-3
cont.

The County has failed miserably to consider existing conditions and failed to analyze the impact of this policy on public health and safety.

C) The County did not conduct the CEQA required analysis for impacts.

CEQA is very clear that the intent of the impact analysis required here is to evaluate the potential impact of the General Plan on future access to the petroleum reserves.

Yet the County DID NOT DO THIS. Instead the County provides a long discussion of the potential health and safety impacts that may occur near oil and gas production. While this "optional, not required" analysis is admirable, the County has failed to comply with CEQA requirements for this analysis. The County MUST redo this analysis, this time following the CEQA intent, and the EIR must be recirculated.

I174-4

Legalese:

The County MUST conduct an analysis that meets CEQA standard by evaluating the impact of future development under the General Plan on the ability to access reserves. The analysis outlined in the EIR has no bearing as the County failed to meet the CEQA standard.

Thank you,



Patsy Turner, Small Business Owner
Oxnard, CA

| | |
|------------------------|------------------------------------------|
| Letter I174 | Patsy Turner February 25, 2020 |
|------------------------|------------------------------------------|

- I174-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.
- I174-2 See response to comment O32-40 regarding wildfire risk related to vegetation noise buffers.
- I174-3 The comment states that the draft EIR does not evaluate the impacts of Policy COS-8.11 on public health and safety. Through this policy the County would encourage community members to conserve energy and reduce greenhouse gas emissions, increase awareness of energy efficiency and climate change, and include outreach to homeowners and contractors. The commenter does not provide any evidence or information regarding why this policy would result in impacts to public health and safety that require analysis in the draft EIR, so no further response can be provided.

The comment also references existing public safety shutdowns of the electrical grid. The commenter’s concerns about the impacts of such shutdowns are noted. However, an EIR is not required to analyze the impacts of existing conditions on public health and safety. The draft EIR appropriately focuses on the physical environmental changes that would result from implementation of the 2040 General Plan.
- I174-4 Refer to Master Response MR-4, Section MR-4.D Mitigation Measures and the Role of the Board of Supervisors, regarding the findings and conclusions related to analysis of impacts and mitigations measures relied upon to comply with CEQA.

From: Paul Aist <info@email.actionnetwork.org>
Sent: Thursday, February 27, 2020 9:53 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

Letter
1175

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming as fast or faster than any county in the nation. Our ocean is acidifying faster. Drought, fire and floods have hit us worse. and we can expect more extreme weather.

I175-1

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I175-2

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I175-3

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Paul Aist

Ventura

Paul Aist

paulaist@gmail.com

8892 Tacoma Street

Ventura , California 93004

| | |
|------------------------|---------------------------------------|
| Letter I175 | Paul Aist February 27, 2020 |
|------------------------|---------------------------------------|

This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I175-1 Refer to response to comment I3-1 regarding the commenter’s concerns about climate change and the draft EIR analysis.
- I175-2 Refer to response to comment I3-2 regarding the use of the most current climate change science in the draft EIR analysis.
- I175-3 Refer to response to comment I3-3 regarding suggested mitigation measures.

February 20, 2020

To: Ventura County Planning Department

From: Phil White, Ojai

Subject: Comments on the 2040 GPU EIR

Letter
1176

Thank you for the opportunity to comment on the EIR. As a member of the Planning Commission, I have followed closely the development of the General Plan Update for the past three years. I am familiar with the General Plan’s contents and attended the public hearings where the policies and programs were discussed and adopted. My comments are mine alone and do not reflect the positions of the Planning Commission.

I1176-1

1. Executive Summary - Page 2-14. “.the net Zero Net Energy Alternative is proposed to address the county’s contribution to GHG emissions.”

The concept of Zero Net Energy while once at the forefront is now behind the times since it allows continuation of natural gas combustion. The current focus of dealing with Global Warming / Climate Change is an emphasis on Zero Carbon, and if the General Plan has an alternative focusing on building energy use, it needs to be Zero Carbon, not Zero Net Energy. The language needs to be modified to make this change.

I1176-2

2. Executive Summary – Page 2-33 – Impact 4.8-1 – Mitigation Measure GHG-1- Reach Code.

The proposed language talks about prohibiting new natural gas infrastructure in new residential construction. In fact, Program COS-S is not limited to new residential construction, nor are the underlying policies COS-8.6 and 8.7. While reach codes will logically apply first to new construction, there needs to be planning under this program to extend to eventual retrofits of existing buildings of all types. The language needs to be modified to add this comprehensive planning.

I1176-3

3. Executive Summary – Page 2-34 – Impact 4.8-1 – Mitigation Measure GHG-2

The proposed language deals with energy savings, and while that is commendable, a comprehensive plan dealing with Global Warming / Climate Change needs to emphasize reducing carbon emissions. Also, the proposed language covers buildings of 25,000 square feet or more and doesn’t include discussion of non-building sources of GHG. This is short-sighted. Since dealing with the Climate Emergency requires a comprehensive approach, the program needs to cover buildings and other sources regardless of size. The language needs to be modified to add these points.

I1176-4

4. Executive Summary – Page 2-35 and 36 – 4.8-1 – Mitigation Measure GHG-3

I concur that the General Plan should not include tiering and streamlining. The uncertainty of the incomplete GHG emission inventory alone dictates that tiering and streamlining don’t make sense.

I1176-5

5. Executive Summary – Page 2-35 – Mitigation Measure GHG-4

I concur that the proposed program makes sense. However, it must be acknowledged that the Climate Emergency Council will likely come up with more than 52 policies for addressing GHG reductions. For example, a recent LA Times report documents the enormous number of abandoned oil and gas wells in the State and in Ventura County. These abandoned wells are sources of methane leaks which contribute to Global Warming / Climate Change. This is an example of a new policy area that is likely needed to address the County’s contributions to Climate Change. The language in GHG-4 needs to be modified to add that point and create that flexibility.

I176-6

6. Executive Summary – Page 2-39 – Mitigation Measure PR-1

The proposed language, purportedly implementing adopted policy COS-7.2, deals with setbacks from oil and gas wells to sensitive receptors including residences and schools. While I concur with the addition of added language covering childcare facilities, hospitals, and health clinics, I am very bothered to see the proposed language removing the 2500 foot criterion adopted by the Board of Supervisors in September. I think it is outrageous for staff and the consultant to use the EIR process to try to undo specific policies adopted by the Board of Supervisors in public hearings. The already adopted 2500 foot limit needs to be reinstated.

I176-7

7. Biological Resources – Pages 4.4-14 – 17

Several important adopted policies affecting biological resources are omitted from this section. Policy WR-7.1 Water for the Environment, Policy PFS-6.6 Natural Drainage Courses, and Policy PFS-6.7 Flood Control and Beach Sand Nourishment each make important contributions to protecting biological resources. This section needs to be modified to include them.

I176-8

8. Mineral and Petroleum Resources – Chapter 4.12

In adopting policies in the General Plan, the Planning Commission and the Board of Supervisors considered balancing the development and conservation of oil and gas resources with economic, health, safety, social and environmental protection values.

For example, the oil and gas industry is a large source of air pollution and greenhouse gas emissions and it is a source of health issues, water contamination, and environmental injustice. Reasonable limitations imposed on oil and gas development to reduce these impacts were considered in the development of the General Plan and the Board of Supervisors adopted a number of policies intended to reduce these impacts while still allowing responsible development.

I176-9

The text in this chapter has been written with a strong emphasis on protecting the extraction of petroleum resources while downplaying the consequent air pollution, climate change, water contamination, health impacts, and environmental injustice. This bias needs to be eliminated in the EIR. The EIR should reflect the balanced intent of the policies adopted by the Board of Supervisors.

9. Mineral and Petroleum Resources – Page 4.12-31 – Mitigation Measures PR-2 and PR-3

The Board of Supervisors in September approved adoption of Policies COS-7.7 and COS-7.8 to reduce the impacts of new oil and gas development on air pollution, greenhouse gas emissions, environmental justice, and other health and safety concerns. Those two policies were designed to balance the responsible development and conservation of oil and gas resources with the need to reduce the environmental, health, and social impacts of that development.

I176-9
cont.

I was very disturbed to see that County staff and their consultant have, by proposing Mitigation Measures PR-2 and PR-3, attempted to effectively undo and cancel the policies adopted by the Board. I think it is outrageous for staff and the consultant to use the EIR process to try to undo specific policies adopted by the Board of Supervisors in public hearings. Proposed Mitigation Measures PR-2 and PR-3 need to be rejected and the original Policies COS-7.7 and COS-7.8 reinstated.

10. Appendix D – GHG Calculations

Ventura County is faced with developing a Climate Action Plan to accomplish its fair share of reducing greenhouse gases to meet State and International targets. The first step in developing the plan is to accurately summarize the existing emissions of greenhouses gases; particularly carbon dioxide and methane. What is presented in Appendix D does not do that.

I176-10

During the public hearings on the General Plan before the Planning Commission and the Board of Supervisors, it was repeatedly pointed out that the County’s consultant had failed to accurately prepare an inventory of greenhouse gas emissions. The inventory in the EIR still does not do so. Two examples of deficiencies are the failure to calculate emissions from large industrial sources, and the failure to address the realistic global warming potential of methane.

Whether it is done as part of the EIR or not, the County will need an accurate GHG emissions inventory. I suggest hiring the Ventura County APCD to prepare it.

Thank you for the opportunity to present comments on the EIR. I sincerely hope my comments are useful.

I176-11

Phil White

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| Letter I176 | Phil White February 20, 2020 |
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I176-1 The commenting individual’s membership on the Planning Commission and familiarity with the 2040 General Plan are noted. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.

I176-2 The comment states that the Zero Net Energy Alternative is “behind the times since it allows the continuation of natural gas combustion.” The comment offers a zero carbon alternative as an option that should be evaluated. This alternative would address greenhouse gas (GHG) emissions from the building sector by establishing requirements for new construction and retrofit of existing buildings through replacement of appliances and addition of features such as solar panels.

Through 2040 General Plan Policy COS-8.6, the County shall “support the transition to zero net energy and zero net carbon buildings, including electrification of new buildings (page 4.8-23).” To quantify GHG emissions reductions in the draft EIR analysis, it was assumed that new buildings in the county would be zero carbon (page 4.8-47). However, the intent of Policy COS-8.6, which is to reduce GHG emissions through advanced building design, could also be supported through the construction of Zero Net Energy buildings. The draft EIR assessed an alternative that would extend this support for Zero Net Energy to existing structures as well because existing buildings account for a greater proportion of GHG emissions from buildings than expected from new construction. Alternative 4 proposed in the draft EIR focuses on creating incentive programs to encourage the retrofit of existing building stock, which account for a larger proportion of forecast energy consumption and GHG emissions in the County’s building energy sector, compared to newly constructed buildings. As summarized in Chapter 6, “Alternatives,” of the draft EIR (page 6-21), Alternative 4 would result in similar impacts to the 2040 General Plan. This alternative would be anticipated to result in only a modest reduction to significant and unavoidable greenhouse gas emission impacts because participation of private property owners in a zero net energy retrofit program would be voluntary and the achievement of zero net energy performance is not limited to building design, but also occupant behavior. While it is possible for existing buildings to be retrofitted to become zero net energy the transformation of all existing buildings in the County to this performance standard and the ability to achieve and maintain this standard is limited by participant behavior. A zero-carbon alternative would face similar potential obstacles to implementation and would generate similar GHG reductions as Alternative 4.

The Zero Net Energy Alternative was developed by the County in accordance with CEQA Guidelines Section 15126.6 as an alternative that would “feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.” The draft EIR is not obligated to consider the commenter’s proposed zero carbon alternative because it is

substantially similar to the alternative evaluated and “an EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation” (CEQA Guidelines, § 15126.6). No further response is required.

- I176-3 The comment suggests edits to the text of Mitigation Measure GHG-1. Note that the citation provided in the comment is from the Table 2-4 in Chapter 2, “Executive Summary,” of the draft EIR, which compiles the impact determinations and mitigation measures proposed in the 17 resource sections that comprise Chapter 4, “Environmental Impact Analysis.” The mitigation measure is separate from Program S in the Conservation and Open Space Element and does not reflect on the application of Policies COS-8.6 and COS-8.7 as proposed in the 2040 General Plan. The commenter is referred to Section 4.8, “Greenhouse Gas Emissions,” for discussion of these policies and programs, as well as the analysis that supports proposal of Mitigation Measure GHG-1. Refer to response to comment O28-3 for discussion of revised Mitigation Measure GHG-1.

The comment suggests that Program COS-S and Mitigation Measure GHG-1 apply to retrofits of existing buildings. While the commenter states that Mitigation Measure GHG-1 should be revised “to extend to eventual retrofits of existing buildings of all types,” it is unclear what specific revisions the commenter is recommending. Assuming the commenter recommends the mitigation measure be revised to require existing structures to be retrofitted with all-electric infrastructure, there is not a clear regulatory authority within State law for local governments to require retrofitting for the specific purpose of GHG reduction or energy efficiency. In addition, mandating the retrofitting of existing buildings with all-electric infrastructure would likely be economically infeasible given the significant costs of replacing such infrastructure before the end of its useful life. Although Policy HAZ-11.7 addresses green building retrofits, which could include removal of existing natural gas infrastructure, the County can only encourage, not require, these actions in existing buildings. Therefore, the County considers mandating the retrofitting of existing buildings with all-electric infrastructure infeasible and has not made any revisions to this measure in response to this comment. Note also that the County Executive Office’s Sustainability Division actively manage existing programs related to improved energy efficiency in existing residential and commercial buildings. Current funds come from the California Public Utilities Commission (residential retrofits) and Southern California Edison (residential and commercial retrofits).

- I176-4 The comment recommends a comprehensive plan to address climate change that includes reductions in carbon emissions and addresses non-building sources of GHG emissions. As discussed in response to comment I176-4, above, the citation provided is from the Table 2-4 in Chapter 2, “Executive Summary,” of the draft EIR, which compiles the impact determinations and mitigation measures proposed in the 17 resource sections that comprise Chapter 4, “Environmental Impact Analysis.” The 2040 General Plan includes policies and programs to reduce carbon emissions that would apply to a variety of sectors. Refer to Section 4.8, “Greenhouse Gas Emissions,” for discussion of comprehensive planning

framework in the 2040 General Plan. Mitigation Measure GHG-2 was developed based on the analysis in Section 4.8, “Greenhouse Gas Emissions,” as a method to reduce greenhouse gas emissions that is not already incorporated into the 2040 General Plan. Also refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions.

The comments suggest modifications to the language of Mitigation Measure GHG-2 to apply to all industrial buildings, not limited to those over 25,000 square feet (sq. ft.) in size. The building size selected for GHG-2 was developed to align with the 25,000 square feet floorspace used by the U.S. Energy Information Administration (EIA) to distinguish smaller commercial buildings apart from larger and more energy intensive projects (EIA 2018). The intent of creating a threshold of 25,000 sq. ft. was to capture a substantial amount of the GHG emissions associated with new discretionary industrial buildings without subjecting smaller businesses to cost-prohibitive benchmarking and retrofitting requirements. It should be noted that the 25,000 sq. ft. threshold captures more existing buildings than the 50,000 sq. ft. threshold specified for commercial building energy efficiency benchmarking since June 1, 2019, under the California Energy Commission’s Building Energy Benchmarking Program (CEC 2020).

The comment also states that the analysis does not include a discussion of non-building sources of GHGs. But it is not clear from this comment which sources specifically are being referred to. Therefore, Mitigation Measure GHG-2 has not been revised in response to this comment. This comment has been noted and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

1176-5 The comment expresses support for Mitigation Measure GHG-3. No further response is required.

1176-6 The comment recommends that language be added to Mitigation Measure GHG-4 to improve its flexibility. Refer to final EIR Chapter 3, “Revisions to the Draft EIR” for revisions to Mitigation Measure GHG-4.

1176-7 Refer to Master Response MR-4, Sections MR-4.H Buffers (Setbacks), MR-4.E Applicability of Reference Studies for Oil and Gas Operations, and MR-4.D Mitigation Measures and the Role of the Board of Supervisors, regarding the findings and conclusions related to buffers (setbacks) in oil and gas operations, applicability of reference studies relied upon and the rationale for analysis, findings and mitigations measures relied upon as part of the environmental review process.

The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- I176-8 This comment states that the draft EIR Section 4.4, “Biological Resources,” is missing several 2040 General Plan policies: WR-7.1, PFS-6.6, and PFS-6.7. However, the comment does not explain or address why these policies should be added to this section of the draft EIR. Note, the commenter also identifies these policies as “adopted” in the 2040 General Plan, which is incorrect. These policies are currently proposed in the 2040 General Plan and subject to future adoption by the Board of Supervisors.
- PFS-6.6 and PFS-6.7 are included in Section 4.10, “Hydrology and Water Quality,” of the draft EIR. This section is cross-referenced under Impact 4.4-5: Conflict with Any Local Policies or Ordinances Protecting Biological Resources, which states: “The Aesthetics (Section 4.1), Hydrology and Water Quality (Section 4.10), and Noise and Vibration (Section 4.13) sections of the draft EIR include analysis of local ordinances concerning lighting, noise, and water quality that may have an indirect effect on biological resources.” However, Policy WR-7.1 is not included in this cross-referenced section.
- The draft EIR Section 4.4.2 Environmental Impacts and Mitigation Measures, subsection Conservation and Open Space Element is revised as follows to incorporate Policy WR-7.1 on page 4.4-17 (following the bullet, “Policy COS 9.3: Open Space Preservation”):
- Conservation and Open Space Element
Policy WP-7.1: Water for the Environment. The County encourage the appropriate agencies to effectively manage water quantity and quality to address long-term adequate availability of water for environmental purposes, including maintenance of existing groundwater-dependent habitats and in-stream flows needed for riparian habitats and species protection. (IGC) [New Policy]
- This policy encouraging other agencies to manage water quantity and quality for environmental purposes would not change any of the impact analysis, conclusions, or mitigation measures identified in the draft EIR analysis of biological resources impacts.
- I176-9 Refer to Master Response MR-4, Sections MR-4.D Mitigation Measures and the Role of the Board of Supervisors and MR-4.C Underlying Motives of the Proposed Oil and Gas Policies, regarding the findings and conclusions related to the rationale for analysis, findings and mitigations measures relied upon as part of the environmental review process.
- I176-10 The comment pertains to the GHG inventory in the draft EIR, including the calculation of emissions from large industrial sources and the global warming potential for methane. See Master Response MR-1 for additional discussion of the GHG inventory.
- I176-11 This comment is a concluding statement and does not raise a significant environmental issue for which a response is required.

02/27/2020 10:11 AM

Letter
1177

What about public safety

Attention: Health & Safety
Date: 02/27/2020

What about public safety?

When I built my house at 209 Heavenly Valley Rd, Newbury Park in 1994, it was considered a single-family dwelling. Now 32% of the people on Heavenly Valley Rd rent out their rooms.

If they are a couple they have at least two cars. The houses in our neighborhood range from three to six bedrooms, and when they convert the garage into another unit, they really have a problem with the parking.

My neighbor has a six bedroom house with a bonus room of about 800 square feet. He currently rents out rooms inside his home. He is in the process of converting his garage into a 1200 square foot, three bedroom apartment and an office. He has enough parking for five cars in the driveway. This will require additional parking, but where will this parking be? I don't know, and I don't know that the county knows. It seems the permit was handed out without anyone doing due diligence to find out this answer.

If you do the math, and they have six bedrooms, and a bonus room, add the three bedroom apartment, and the office, how much parking is needed? Everyone in California has a car, and all these cars will be on the street.

Four times in the last 2 1/2 years an ambulance and a firetruck have been stuck to where either they had to wheel the patient down the street or go around the block because the street was blocked off by the parked cars. Again, the streets in this area are only 20 feet wide, and it forces people to park their cars on the street because of over occupancy.

There is also another problem. The street is a gateway to the Santa Monica Mountains which in the past has always been a huge fire concern. Please look on the map and you'll see the gateway I am speaking about. Who says that emergency personnel will be able to get up the street or down the street once these changes are implemented?

Has anyone asked the county/city fire department if they have had issues getting up this street? I hope so, and that should go on record what they had to say. I don't know whether to say no parking on the street or provide more parking but something needs to happen. These homes were meant to be only single-family dwellings and you've converted them into an apartment with absolutely no parking and when I talk to the building department they come up with some nonsense that there's a bus stop within half a mile, which it is slightly over that and we don't need parking, really.

The occupancy has changed but the code has done nothing for the safety or for the provisions of the people living here. It is my understanding that fire sprinklers are not mandatory, and why aren't they?

I hope you think of the public safety before you consider anymore garages changed into units, the Community demands more integrity than you're giving us.

Phillip Fuess (805 630 6212)
209 Heavenly Valley Rd
Newbury Park CA 91320

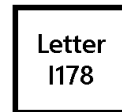
Phillipfuess @ Hot mail. com

I177-1

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| Letter I177 | Phillip Fuess February 27, 2020 |
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- I177-1 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Sunday, February 2, 2020 11:08 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan



You have a NEW Comment

Name:
Polly Nelson
Contact Information:
pollynelson4@gmail.com

Comment On:
Buffer Requirements, Trucking vs. Pipeline, Flaring, Climate Action Plan, Greenhouse Gas "Super- Emitters, Ojai

Your Comment:

- *Buffer Requirements – Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet. I 1178-1
- *Trucking vs. Pipeline - Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking. I 1178-2
- *Flaring – Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes. I 1178-3
- *Climate Action Plan – Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions. I 1178-4
- *Greenhouse Gas “Super-Emitters” – The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents. I 1178-5
- *For Ojai - The 2040 General Plan must include a strong defense of the five-pound air emissions limit for the Ojai Valley. All projects subject to CEQA review must include an evaluation of the totality of air emissions in order to understand and mitigate the impacts to local air quality. I 1178-5

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| Letter I178 | Polly Nelson February 2, 2020 |
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- I178-1 Refer to Master Response MR-4, Sections MR-4.H Buffers (Setbacks), regarding the findings and conclusions related to buffers (setbacks) for oil and gas operations. Refer to Master Response MR-4, Section MR-4.G Pipeline Requirements, regarding the findings and conclusions related to the conveyance of oil and produced water from oil and gas operations.
- I178-2 Refer to Master Response MR-4, Section MR-4.F, “Flaring,” regarding the findings and conclusions related to flaring in oil and gas operations.
- I178-3 The comment states that the 2040 General Plan should be revised to achieve measurable, enforceable reductions in greenhouse gas emissions. Refer to Master Response MR-1 regarding the development of the 2040 General Plan policies and programs. No specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.
- I178-4 The comment recommends that the County adopt the strongest measures to ensure greenhouse gas emissions are curbed, particularly from “super-emitters.” Refer to Master Response MR-1 for additional discussion of “super-emitters” and the development of 2040 General Plan policies, as well as discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions. The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I178-5 As discussed in the draft EIR and explained further in response to comment O20-14, the comment refers to a threshold of significance for daily reactive organic gas and nitrogen oxide emissions in the Ojai Valley which is referenced in the Ojai Valley Area Plan. This threshold, which applies to sources that are not permitted by the Ventura County Air Pollution Control District (VCAPCD), was added to the VCAPCD’s Air Quality Assessment Guidelines in 1989 and the reference to this threshold was thereafter added to the Ojai Valley Area Plan in 1995. The 2040 General Plan would not change this threshold. Also refer to the response to comment O20-15 for discussion regarding the types of air emissions sources addressed by VCAPCD guidance and thresholds.

LBTH INC

5574-B Everglades
Ventura, CA 93003
(805) 642-6881
February 20, 2020

**Letter
1179**

FEB 25 2020

Attn: RMA Planning Division
General Plan Update
800 S. Victoria Avenue, L#1740
Ventura, CA 93009-1740

Dear County of Ventura:

Thank you for inviting comments on the EIR. I am an engineer by trade and have been an operator of LBTH oil field for over 30 years. My experience and knowledge of the oil and gas industry conflicts with critical conclusions in the EIR and I implore the County to revisit the data sources that is being relied on to make major impacts on our County.

I1179-1

I refer you to Page 2-54, the Market Outlook forecasted price per bbl which was pulled from old data taken at market low in 2017. Chapter 8, pages 8-74, "The County's oil reserves are estimated by the State Division of Oil and Gas and Geothermal Resources at 246,141,100 barrels". This calculation does not correctly apply the definition of "reserves", nor does the County discuss what types of data was included or excluded in obtaining that number.

I1179-2

Page 8-74, presents an incomplete and inaccurate description of how and why wells are idled. It implies that the entire industry "shuts down" when the market goes low. "Crude oil prices influence the level of production and well drilling activity in the County's oil fields. When prices are low, wells are placed in idle status and few or no new wells are drilled".

Additionally, on Page 2-54, "Production throughout the State had been declining since the 1980's, as oil reserves in the State have diminished. In recent years, the drilling of oil wells and well stimulation (including hydraulic fracturing), has been reduced in response to current oil prices". Page 8-74 "This level of production represents a 43% decrease in production from 1987 levels (15,659,398 barrels)".

I1179-3

However, Appendix D: GHJ applies base calculations that claim an anticipated future increase of over 1 million barrels of production, without providing references as to what data they have to support this potential increase in reserves and oil production.

Conflicting data and incorrect data in a report that is to govern the future. I urge you to stop and review for consistency and actual valid data before moving forward.

Sincerely,

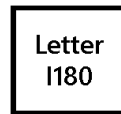


R W Bowman, PhD, PE

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| Letter I179 | R W Bowman February 25, 2020 |
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- I179-1 The commenting individual's experience and knowledge of the oil and gas industry are noted. This comment is an introductory statement and does not raise a significant environmental issue for which a response is required.
- I179-2 The comment provides clarification regarding specific statements about the oil and gas production and pricing in the Background Report. These specifics do not directly inform the analysis or impact conclusions of the draft EIR. No revisions to the draft EIR have been made in response to this comment. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I179-3 The comment states that page 2-54 of the Background Report states that oil production in the State has been declining since the 1980's yet the draft EIR assumes an anticipated future increase of oil production of over 1 million barrels. Previously in the draft EIR, there was a calculation error in the scaling factor used to forecast emissions through 2040 that was designed to scale emissions by average annual trends in oil and gas production in the county since 2008. The commenter is correct to include historical oil production earlier than 2008, as oil production in the county between 2008 and 2015 demonstrated an anomalous spike in production, coinciding with the recession during that time. This spike is not indicative of overall oil production trends, when compared to the overall decline in production since 1980. The GHG forecast has been revised in the draft EIR to incorporate historical oil and gas production in the county starting from 1980, instead of 2008, to provide a more accurate assessment of the overall trends in oil and gas production in the county. Additionally, the calculations have been corrected such that oil-related emissions are scaled by oil production and gas-related emissions are scaled by gas production. A discussion has also been added in Attachment 2 of the final EIR to further explain the methodology used to forecast oil and gas emissions.
- For additional information on the methods used to forecast the county's oil production in the GHG projections included in the 2040 General Plan and draft EIR, refer to response to comment O6-30.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Monday, February 10, 2020 9:42 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan



You have a NEW Comment

Name:
Rain Perry

Contact Information:
mizzperry@gmail.com

Comment On:
draft for public comment of 2040 general plan

Your Comment:

- Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet. I 1180-1
- Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking. I 1180-2
- Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes. I 1180-3
- Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions. I 1180-4
- The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents. I 1180-4

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| Letter I180 | Rain Perry February 10, 2020 |
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- I180-1 Refer to Master Response MR-4, Section MR-4.H, “Buffers (Setbacks),” regarding the findings and conclusions related to buffers (setbacks) in oil and gas operations.
- I180-2 Refer to Master Response MR-4, Section MR-4.G, “Pipeline Requirements,” regarding the findings and conclusions related to conveyance of oil and produced water from oil and gas operations.
- The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I180-3 Refer to Master Response MR-4, Section MR-4.F, “Flaring,” regarding the findings and conclusions related to flaring in oil and gas operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I180-4 The comment recommends that the County adopt the strongest measures to ensure greenhouse gas emissions are curbed. Refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions. This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: Swift, Rebecca
Sent: Friday, February 14, 2020 4:46 PM
To: General Plan Update
Cc: Bennett, Steve
Subject: watershed

**Letter
1181**

In light of the litigation the city of Ventura has began as a counter suit against the Santa Barbara Channel Keepers, I am EXTREMELY concerned that the County of Ventura should also be very worried. I reside in the County of Ventura, work for the County of Ventura and was served by the City Of Ventura. With all the overlap of city and county PLEASE review any and all watershed documents that may have been proposed and placed on the "back burner" in anticipation that this issue will eventually include the County Of Ventura.
Water rights, clean water availability, federal government, State and local ordinances do have to be considered as we look forward to the year 2040

I181-1

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| Letter 1181 | Rebecca Swift February 14, 2020 |
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I181-1 The comment asserts that water rights, clean water availability, federal government, and state and local ordinances need to be considered. The comment is not related to the adequacy of the draft EIR. The commenter is referred to Section 4.10, "Hydrology and Water Quality," of the draft EIR for a discussion of water rights and water availability. No further response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: Mary Vanoni <vanonimary@gmail.com>
Sent: Thursday, February 27, 2020 2:27 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

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|------------------------|
| Letter I182 |
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2040 General Plan Draft EIR Comment:

The County rushed to complete the EIR. It is too important to be done haphazardly and contain gross flaws that will impact our County so drastically. I I182-1

Just a couple of the issues:

CEQA requires that proposed mitigation be both technically and economically feasible. The County' proposed mitigation measures are **infeasible**. One mitigation measure will require small development projects to purchase farmland to preserve in perpetuity. But the County didn't analyze the costs or indicate who would manage these small ag preservation parcels. I I182-2

CEQA says that the mitigation cannot make the impacts worse. Shortage of farm worker housing was identified as one of the most significant issues facing agriculture in Ventura County. But mitigation proposed by the County will effectively block future farm worker housing, because these projects will bear the costs of land acquisition for preservation! I I182-3

Please do what is right for Ventura County and take the time to correct and re-circulate the EIR. I I182-3

Richard Atchley
 Retired Carpenter, Farmer, Concerned Ventura County Resident

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|------------------------|---------------------------------------------|
| Letter I182 | Richard Atchley February 27, 2020 |
|------------------------|---------------------------------------------|

- I182-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.
- I182-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I182-3 Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Richard Gould <rickgould11@me.com>
Sent: Saturday, February 22, 2020 2:13 PM
To: General Plan Update
Subject: Carbon emissions

**Letter
I183**

Take the bull by the horns;
Set the carbon emissions levels at lower levels than ever before. Invite other Cities to be bold with us.
It will cost jobs in the short run but slow the devastating Heating of. Land and ocean Sent from my iPhoneL

I I183-1

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| Letter I183 | Richard Gould February 22, 2020 |
|------------------------|-------------------------------------------|

I183-1 This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

From: richard@range-realty.com <richard@range-realty.com>
Sent: Friday, February 21, 2020 8:10 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: general plan

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| Letter I184 |
|------------------------|

Greetings,

The County General Plan proposed does not address the conflict with CEQA, EIR, Fire Department, insurance companies, and Coastal Plan regarding brush clearance for fire protection. Specifically, a house on a ridge requires much more, buy hundreds of feet, clearance than a house on the flat.

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| I184-1 |
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Ask the homeowners on Mipoloma Road that lost their houses.

Richard Gray, Broker
 Range Realty

415 E. High St.
 Moorpark, CA 93021
 805-529-6626

DRE 00933987

| | |
|------------------------|------------------------------------------|
| Letter I184 | Richard Gray February 21, 2020 |
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I184-1 The comment states that the 2040 General Plan does not address conflicts with the California Environmental Quality Act, the draft EIR, Fire Department, insurance companies, and the Coastal Plan pertaining to brush clearance for fire protection. The 2040 General Plan does not include brush clearing requirements. The analysis of wildfire impacts assumes compliance with existing regulations. The draft EIR (page 4.9-21) explains that “Public Resources Code Section 4291 and Government Code Section 51182 require property owners in mountainous areas, forest-covered lands, or any land that is covered with flammable material to create, at minimum, a 100-foot defensible space (or to the property line) around their homes and other structures. Pursuant to Ventura County Fire Protection District Ordinance 31, the Ventura County Fire Protection District Fire Hazard Reduction Program requires mandatory 100-feet of brush clearance around structures located in or adjacent to Hazardous Fire Areas.” The 2040 General Plan would not change the requirement for brush clearing in Hazardous Fire Areas and there is no conflict with existing regulations.

Robert & Sandra Kurtz
187 Stanislaus Avenue
Ventura, CA 93004

Letter
I185

February 25, 2020

Ventura County Board of Supervisors
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

I'm writing to you as a resident of the County concerned about the viability of the oil and gas industry in Ventura County.

I185-1

The 2040 General Plan Draft EIR fails to give proper analysis to oil and gas mineral resources.

Neither the EIR nor the Background report provide a complete and thorough description of the existing, current regulatory setting that oversees the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

I185-2

The EIR fails to actually analyze for direct and indirect impacts to mineral resource zones that will occur as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses OVER known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. These incompatible land uses will significantly impact future mineral resource production and must be evaluated and mitigated for in the EIR.

I185-3

The EIR never addresses indirect impacts to mineral resource development that will occur under the 2040 General Plan. As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to produce mineral resources in the County.

The Draft EIR is lacks critical analysis and must be corrected and recirculated to ensure a fair process for Ventura County residents.

I185-4

Thank you,



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| Letter I185 | Robert & Sandra Kurtz February 25, 2020 |
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This comment letter repeats many of the same comments provided in Letter I61. The responses below provide cross references to the portions of Letter I61 where responses to the same comments have already been provided.

- I185-1 Refer to response to comment I61-1 regarding concerns related to the oil and gas industry and the draft EIR’s analysis of oil and gas mineral resources.
- I185-2 Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR. The commenter indicates that the draft EIR and Background Report do not provide a complete description of the existing and current regulatory setting for production of mineral resources. The Background Report Section 8.4, “Mineral Resources,” 8.5, “Energy Resources,” and Section 10.2 “Legal and Regulatory Framework for Water Management (Class II Underground Injection Control Program),” provide relevant regulatory information necessary for understanding and evaluating the impacts of the 2040 General Plan on petroleum resources. Additionally, the draft EIR Mineral and Petroleum Resources Section 4.12.1, Background Report Setting Updates, includes additional information laws and regulations that pertain to petroleum development. This includes federal laws and regulations related to gas pipelines, state laws and regulations related to the California Pipeline Safety Act of 1981, Ventura County Air Pollution Control District (VCAPCD) Rule No. 71.1 – Crude Oil Production and Separation and Rule No. 54 – Sulfur Compounds, VCAPCD Primary (Non-Emergency) Flares, VCAPCD Emergency Flares, and VCAPCD Permitted Flare Variances, and Non-Coastal and Coastal Zoning Ordinances. In the response to this comment, and based on the April 9, 2020 comment letter from the California Geologic Energy Management Division (CalGEM) describing its current regulatory program, the regulatory framework section has been augmented. The enhanced discussion of regulatory framework would not alter the findings or analysis in the EIR. The augments to the regulatory setting for Section 4.12 are provided in final EIR Chapter 3, “Revisions to the Draft EIR.”
- I185-3 Refer to response to comment O5-90 regarding the interplay between the land use designations in the 2040 General Plan and mineral resource zones and Master Response MR-2 for a detailed discussion of how buildout was analyzed in the draft EIR. Response to comment O9-8 provides a discussion of the potential for indirect impacts due to incompatible land uses. Refer to Master Response MR-2 2040 General Plan Land Use, Growth Projects, and Buildout Assumptions regarding the assumptions and data relied upon to forecast growth and land use. The commenter asserts that the draft EIR fails to analyze impacts to mineral resource zones that would occur as a result of implementation of the 2040 General Plan. Also refer to response to comment I61-3.
- I185-4 Refer to response to comment I61-4 and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Bob & Anna Chambers <lacostachambers@gmail.com>
Sent: Wednesday, February 26, 2020 1:44 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan / EIR Comments

**Letter
I186**

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

I186-1

Robert M. Chambers

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| Letter I186 | Robert M Chambers February 26, 2020 |
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This comment letter repeats the same comments provided in Letter I6. The responses below provide cross references to the portions of Letter I6 where responses to the same comments have already been provided.

I186-1 Refer to response to comment I6-1, which discusses setbacks from freeways and high traffic roads as a way to reduce adverse air quality effects for sensitive receptors, and the feasibility of Mitigation Measure AQ-3 (Policy HAZ-10.X).

From: Bob & Anna Chambers <lacostachambers@gmail.com>
Sent: Wednesday, February 26, 2020 1:46 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: County General Plan/EIR Comments

Letter
1187

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 South Victoria Avenue, L#1740
 Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

I187-1

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

I187-2

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I187-3

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I187-4

I appreciate your consideration.

Laura McAvoy

I support this letter-
Robert M. Chambers

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|------------------------|-----------------------------------------------|
| Letter I187 | Robert M Chambers February 26, 2020 |
|------------------------|-----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I187-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.

- I187-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.

- I187-3 Refer to Master Response MR-2 regarding the 2040 General Plan’s consistency with the Save Open Space and Agricultural Resources initiative.

- I187-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.



Letter
1188

February 19, 2020

Ventura County CoLAB
Board of Directors & Officers

John Hecht, Sespe Consulting
Chairman

Mark Mooring, Buon Gusto Farms
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Director

Tim Cohen, Rancho Temescal
Director

Patrick Loughman,
Lowthorp Richards Attorneys
Director

Neal Maguire,
Ferguson, Case, Orr, Patterson
Director

Jeff Nobriga, California Resources Corp.,
Director

Tony Skinner, IBEW Local 952
Director

Alex Teague, Limoneira
Director

Andy Waters, Waters Family Farms
Director

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC)
County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors" (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

- 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
- 2) The cost per acre to purchase each category of farmland;
- 3) The anticipated cost of establishing a conservation easement for each category of farmland;
- 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
- 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
- 6) Any information that could constitute a "plan" for management of farmland in conservation easements;

1188-1

1188-2

Page 2 of 4

- 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
- 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
- 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

I188-2
cont.

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

I188-3

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the potential for conflicts would be minimal. This impact would be less than significant" (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

I188-3
cont.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as "programmatic" or "project", must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

I188-4

In 2014, the California Court of Appeal stated in a ruling that "[T]he fact that this EIR is labeled a 'project' rather than a 'program' EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the "rule of reason," rather than any semantic label accorded to the EIR."

It is CoLAB's opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

I188-5

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

I188-6

The EIR states on page 4.2-3 that "...a reduction in available water resources for irrigation" is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

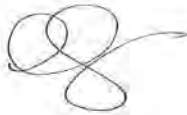
CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

- 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
- 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
- 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

I188-7

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,



Louise Lampara
Executive Director

I support this letter -
Robert M. Chambers

| | |
|------------------------|-----------------------------------------------|
| Letter I188 | Robert M Chambers February 27, 2020 |
|------------------------|-----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter A13. The responses below provide cross references to the portions of Letter A13 where responses to the same comments have already been provided.

- I188-1 The comment describes that the Ventura County Coalition of Labor, Agriculture, and Business (CoLAB) has provided the following comments to the Agricultural Policy Advisory Committee describing issues with the draft EIR “that CoLAB believes will negatively impact the viability of local agriculture.” This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I188-2 Refer to response to comment A13-7 and Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I188-3 Refer to response to comment A13-8 regarding the Right-to-Farm Ordinance and land use conflicts.
- I188-4 Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface.
- I188-5 Refer to response to comment A13-10 regarding 2040 General Plan Policies AG-5.2 and AG-5.3.
- I188-6 Refer to response to comment A13-11 regarding water resources and loss of topsoil.
- I188-7 Refer to response to comment A13-12 regarding mitigation measure suggestions.

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Letter
I189

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, "unlike the Preble area, services are not readily available to the Olivas lands." This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is "not included in the City's sanitation district because of problems with water pressure." This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district's pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

I189-1

I189-2

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land. I189-2 cont.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected. I189-3

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community. I189-4

2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies. I189-5

3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant." I189-6

4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable. I189-7

5. The Plan does not adequately evaluate the impacts of increased competition for water in our community. I189-8

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input. I189-9

Sincerely,

*I support this letter -
Robert M. Chambers*

| | |
|------------------------|-----------------------------------------------|
| Letter I189 | Robert M Chambers February 27, 2020 |
|------------------------|-----------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I189-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I189-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I189-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I189-4 Refer to response to comment I9-5 regarding the analysis of social and economic issues in the draft EIR.
- I189-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I189-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I189-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I189-8 Refer to response to comment I9-9 regarding water supply.
- I189-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

From: Robin Munson <info@email.actionnetwork.org>
Sent: Wednesday, February 26, 2020 3:23 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

| |
|----------------------|
| Letter I1 |
|----------------------|

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather

I190-1

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I190-2

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I190-3

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Robin Munson
robin.munson@gmail.com
 1405 Donegal Way
 Oxnard, California 93035

| | |
|------------------------|------------------------------------------|
| Letter I190 | Robin Munson February 26, 2020 |
|------------------------|------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I3. The responses below provide cross references to the portions of Letter I3 where responses to the same comments have already been provided.

- I190-1 Refer to response to comment I3-1 regarding the commenter’s concerns about climate change and the draft EIR analysis.
- I190-2 Refer to response to comment I3-2 regarding the use of the most current climate change science in the draft EIR analysis.
- I190-3 Refer to response to comment I3-3 regarding suggested mitigation measures.

From: Scott Hirsch <scotthirschsound@gmail.com>
Sent: Thursday, February 27, 2020 9:26 AM
To: General Plan Update
Subject: Re: General Plan

**Letter
I191**

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

To Whom It May Concern,

Climate change is here, its effects are already evident in our county. The General Plan update fails to provide enough emissions reduction to meet the state-mandated goals. A robust plan, with the help of technical and scientific input, needs to be included for the 2040 General Plan, including a strong defense of the five pound air emissions limit for the Ojai Valley.

I191-1

Sincerely,
Scott Hirsch
Ojai, CA

| | |
|------------------------|------------------------------------------|
| Letter I191 | Scott Hirsch February 27, 2020 |
|------------------------|------------------------------------------|

I191-1 This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer to Master Response MR-1 for a discussion of the greenhouse gas policies in the 2040 General Plan and the factors related to the County's ability to demonstrate that greenhouse gas targets aligned with State targets will be met. As discussed in the draft EIR and explained further in response to comment O20-14, the comment refers to a threshold of significance for daily reactive organic gas and nitrogen oxide emissions in the Ojai Valley which is referenced in the Ojai Valley Area Plan. This threshold, which applies to sources that are not permitted by the Ventura County Air Pollution Control District, was added to the Ventura County Air Pollution Control District's Air Quality Assessment Guidelines in 1989 and the reference to this threshold was thereafter added to the Ojai Valley Area Plan in 1995. The 2040 General Plan would not change this threshold.

FEB 27 11:20 AM '20

c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

Letter
I192

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I192-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I192-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I192-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I192-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I192-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I192-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I192-7


In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I192-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I192-9

Sincerely,


Sean H. McGrath

| | |
|------------------------|------------------------------------------|
| Letter I192 | Sean McGrath February 24, 2020 |
|------------------------|------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I192-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I192-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I192-3 Refer to response to comment I4-3 regarding water availability and cost.
- I192-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I192-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I192-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I192-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I192-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I192-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

REC'D FEB 27 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org
February 25, 2020
Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Letter
I193

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I193-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value

I193-2

and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I193-2
cont.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I193-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I193-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I193-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I193-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I193-7

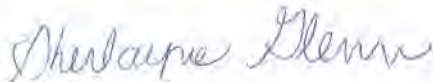
In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I193-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I193-9

Sincerely,



| | |
|------------------------|---------------------------------------------|
| Letter I193 | Sherlayne Glenn February 25, 2020 |
|------------------------|---------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I193-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I193-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I193-3 Refer to response to comment I4-3 regarding water availability and cost.
- I193-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I193-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I193-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I193-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I193-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I193-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Thursday, February 27, 2020 8:53 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
I194**

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:
Sophia Valentina Arce
Contact Information:
sophie2arce@gmail.com
Comment On:
All

Your Comment:

We need a climate action plan with measurable targets and outcomes. The current policies aren't measurable or enforceable, and are not sufficient to drive the kind of change necessary to meet the greenhouse gas reduction targets.

I194-1

| | |
|------------------------|---------------------------------------------------|
| Letter I194 | Sophia Valentina Arce February 27, 2020 |
|------------------------|---------------------------------------------------|

I194-1 The comment states that the Climate Action Plan does not include measurable and enforceable policies or meet State targets. Refer to Master Response MR-1 for further discussion of the 2040 General Plan policies and programs, as well as the factors affecting the County's ability to demonstrate greenhouse gas reductions in alignment with State greenhouse gas reduction targets. No specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

From: Stan Chambers <Stan@stanchambers.com>
Sent: Tuesday, February 25, 2020 3:23 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Flawed Ventura County General Plan

Letter
I195

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great- great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my great grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

I195-1

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

I195-2

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I195-3

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.

I195-4

2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies. 1195-5

3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant." 1195-6

4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable. 1195-7

5. The Plan does not adequately evaluate the impacts of increased competition for water in our community. 1195-8

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input. 1195-9

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Sincerely,



Stan Chambers
Broker Associate | Lic# 01356002
(760) 505-8008
Stan@StanChambers.com
www.StanChambers.com



FIRST TEAM
REAL ESTATE



| | |
|------------------------|-------------------------------------------|
| Letter I195 | Stan Chambers February 25, 2020 |
|------------------------|-------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I195-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I195-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I195-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I195-4 Refer to response to comment I9-5 regarding analysis of social and economic issues in the draft EIR.
- I195-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I195-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I195-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I195-8 Refer to response to comment I9-9 regarding water supply.
- I195-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

Letter
I196

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

I196-1

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report **Table 6-26: Transportation Department Planned Capital Projects** lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

I196-2

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes

I196-3

to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

I196-3
cont.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I196-4

I appreciate your consideration.

Laura McAvoy

I support this letter-

Stanley Holroyd Chambers III

| | |
|--------------------|----------------------------------------------------------|
| Letter I196 | Stanley Holroyd Chambers III February 26, 2020 |
|--------------------|----------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I196-1 Refer to response to comment I8-2 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.
- I196-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.
- I196-3 Refer to Master Response MR-2 regarding the 2040 General Plan's consistency with the Save Open Space and Agricultural Resources initiative.
- I196-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Steven Nash <mrswn@hotmail.com>
Sent: Wednesday, February 26, 2020 6:41 AM
To: General Plan Update
Subject: Comments on the Draft Environmental Impact Report for the Ventura County 2040 General Plan.

Letter
I197

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

The entire assumption of a General Plan and its supporting documentation is to have a forward-looking plan to deal with land use, potential significant impacts and their mitigation measures within a geographical area. It is my belief, and the belief of many others, that climate disruption caused by greenhouse gas emissions is the primary concern that has to be addressed in this type of document. Any plan that attempts to provide a framework for mitigating significant impacts that does not place climate change at the very forefront of significant impacts is a deeply flawed document and is doomed to fulfill its "raison d'etre" which, ultimately, is to secure a safe and prosperous future for the residents and protect the physical environment under its jurisdiction.

The corrective action is to acknowledge the primacy of climate change and the devastating impacts that will be most severely felt in Ventura County. Climate change is caused by fossil fuel production and consumption. We must do our part to reduce oil production through thoughtful, rigorous policy to phase it out. All Goals and Policies incorporated within a General Plan must have annual quantifiable metrics and measurables that lead to a complete cessation of hydrocarbon extraction practices within the county and the elimination of hydrocarbon usage by a date certain.

Pg. 4.3-7, Policy PFS-2.5: County Employee Trip Reduction. The County shall encourage its employees to reduce the number and distance of single-occupancy vehicle work trips.

> What is the goal and how does the County plan on achieving it and in what time frame?

Pg. 4.3-8, Policy PFS-2.6: County Alternative Fuel Vehicle Purchases. The County shall review market-available technologies for alternative fuel vehicles and prioritize purchase of vehicles to reduce greenhouse gas emissions where economically feasible.

> What is the goal and how does the County plan on achieving it and in what time frame?

Pg. 4.3-8, Policy COS-8.1: Reduce Reliance on Fossil Fuels. The County shall promote the development and use of renewable energy sources (e.g., solar, thermal, wind, tidal, bioenergy) to reduce dependency on petroleum-based energy sources.

> What is the goal and how does the County plan on achieving it and in what time frame?

Pg. 4.3-8, Policy COS-8.6: Zero Net Energy and Zero Net Carbon Buildings. The County shall support the transition to zero net energy and zero net carbon buildings, including the electrification of new buildings.

> What is the goal and how does the County plan on achieving it and in what time frame?

Pg. 4.3-9, Policy HAZ-10.5: Air Pollution Impact Mitigation Measures for Discretionary Development. The County shall work with applicants for discretionary development projects to incorporate bike facilities, solar water heating, solar space heating, incorporation of electric appliances and equipment, and the use of zero and/or near zero emission vehicles and other measures to reduce air pollution impacts and reduce greenhouse gas emissions.

I197-1

> What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame?

Pg. 4.3-10, Policy HAZ-10.7: Fuel Efficient County Vehicles. When purchasing new County vehicles, the County shall give strong preference to fuel efficient vehicles, include the use of zero emission vehicles when feasible.

> What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame?

Pg. 4.3-10, Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce stand-by charges.

> What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame?

I197-1
cont.

Pg. 4.6-6, For the purpose of this Draft EIR, implementation of the impact on energy resources would be significant if implementation of the 2040 General Plan would: Result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation that would cause a potentially significant effect on the environment. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

> Include "Not meet a 100% renewable energy economy by 2045."

I197-2

Pg. 4.6-7, Policy LU-11.4: Sustainable Technologies. The County shall encourage discretionary development on commercial- and industrial- designated land to incorporate sustainable technologies, including energy- and water-efficient practices and low- or zero-carbon practices.

> What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame?

Pg. 4.6-8, Policy CTM-2.12: Countywide Bicycle Lane and Trail System. The County shall coordinate with the cities in the county and Ventura County Transportation Commission (VCTC) to plan and implement a system of bicycle lanes and multi-use trails that link the cities, unincorporated communities, schools including colleges and universities, commercial/retail, employment centers, health care service facilities, public transportation, and other points of interest.

> What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame?

Pg. 4.6-13, Policy PFS-7.6: Smart Grid Development. The County shall work with utility providers to implement smart grid technologies as part of new developments and infrastructure projects.

> What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame? All large projects will incorporate a micro-grid with solar and battery storage technology.

I197-3

Pg. 4.6-13, Policy COS-7.7: Conveyance for Oil and Produced Water. The County shall require new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be trucked.

> All produced water shall be treated on-site so as not unfairly burden disadvantaged and communities of color that have had to accept this toxic waste in the past.

Pg. 4.6-13, Policy COS-8.1: Reduce Reliance on Fossil Fuels. The County shall promote the development and use of renewable energy resources (e.g., solar, thermal, wind, tidal, bioenergy, hydroelectricity) to reduce dependency on petroleum-based energy sources.

> What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

Pg. 4.6-15, Implementation Program R: Performance-Based Building Code for Green Building. The County shall update the Building Code to establish performance-based standards that incentivize green building techniques.

> What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

I197-3
cont.

Pg. 4.6-17, Policy WR-3.1: Non-Potable Water Use. The County shall encourage the use of nonpotable water, such as tertiary treated wastewater and household graywater, for industrial, agricultural, environmental, and landscaping needs consistent with appropriate regulations.

> Currently meaningless as written. What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

Pg. 4.8-1, Executive Order (EO) B-55-18, which calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter.

> To provide consistency with the time frame of the General Plan, Ventura County should be carbon neutral by 2040, if not sooner.

Pg. 4.8-11, For the purpose of this draft EIR, implementation of the 2040 General Plan would have a significant GHG emissions impact if it would: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Conflict with an applicable plan, policy, or regulation for the purpose of reducing the emissions of GHGs.

> If there is no actual program to measure GHG from all sources, nor scheduled, implementable reduction protocols that result in carbon neutrality by a date certain then this is meaningless. What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

I197-4

Pg. 4.8-12, Implementation Program P: Annual General Plan Implementation Review. The County shall review the General Plan annually, focusing on the status and progress of program implementation. The County shall prepare a report to the Board of Supervisors summarizing the status of implementation programs and any recommendations for General Plan amendments.

> What are the metrics and measurables and in what time frame and by what date-certain will Program P be fully realized?

Pg. 4.8-22, Implementation Program K: Coordination on Large Onsite Wastewater Treatment Systems Repairs. The County shall coordinate with the Los Angeles Regional Water Quality Control Board to address compliance and repair issues for large onsite wastewater treatment systems (over 5,000 gallons) and package treatment systems.

> Wastewater infrastructure is a source of GHG emissions, especially methane. How will these emissions be measured and mitigated/reduced/eliminated?

I197-5

Pg. 4.8-23, Policy COS-7.2: Oil Well Distance Criteria. The County shall require new discretionary oil wells to be located a minimum of 1,500 feet from residential dwellings and 2,500 from any school.

> Why the discrepancy? Make the distance a uniform 2,500 feet.

Pg. 4.8-23, Policy COS-8.6: Zero Net Energy and Zero Net Carbon Buildings. The County shall support the transition to zero net energy and zero net carbon buildings, including electrification of new buildings.

> What is the goal and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

Pg. 4.8-24, Policy COS-10.2: Community Greenhouse Gas Emissions Reduction Target for 2030. The County shall achieve a community-wide GHG emissions reduction target of 41 percent below 2015 levels by 2030.

> What are the annual goals and how does the County plan on achieving it via metrics and measurables and in what time frame and by what date-certain?

Pg. 4.8-27, Implementation Program U: Solar Canopies in Non-Residential Projects. The County shall amend the County's Coastal and Non-Coastal Zoning Ordinances to require parking lots for new non-residential construction projects, with floor area of greater than 50,000 square feet, to include solar canopies.
 > Eliminate the floor area requirement and go with a percentage such as 90% of the parking area shall have canopy solar.

Pg. 4.8-27/28, Implementation Program DD: Budget and Staffing Plan for CAP Implementation. The CEO shall, within six months from the adoption of the General Plan Update and Climate Action Plan, present to the Board of Supervisors a proposed budget and staffing plan Greenhouse Gas Emissions Ventura County 4.8-28 2040 General Plan Draft Environmental Impact Report (including qualified technical consultants) to implement the Climate Action Plan, and shall update the budget and staffing plan each year.
 > Include a citizen advisory committee, also.

Pg. 4.8-32, Implementation Program Q: Standards for Solar Photovoltaic (PV) Carports in County Lots. The County shall establish standards for inclusion of solar PV carports in County-owned parking lots.
 > Implement a 90% coverage by canopy solar by date certain.

Pg. 4.8-32, Include the following, "Work with the Clean Power Alliance to plan, permit and build all possible opportunities to implement the CPA's "Local Programs" mandate."

Pg. 4.8-33, Policy AG-5. 5: Carbon Farming Practices. The County shall encourage and support the efforts of resource conservation districts, farmers, and other stakeholders to expand carbon farming practices, such as reduced tilling, cover-cropping, composting, biochar, and other activities that both reduce GHG emissions and increase carbon sequestration and storage, when feasible.
 > Include "regenerative farming".

Pg. 5-11, 5.2.8 Greenhouse Gas Emissions, Thus, the 2040 General Plan's incremental contribution to cumulatively significant climate change effects would be cumulatively considerable.
 > Unacceptable conclusion.

The Los Angeles Sustainability Plan, aimed at meeting the goals of the Paris Climate Agreement, has clear and bold goals: "By eliminating fossil fuel production in the county, including drilling, production and refining, the county will protect its residents from harmful local pollution that inequitably burdens low-income communities and communities of color." We should demand no less from our DEIR/General Plan.

Action Needed: The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

Therefore, in my opinion, this DEIR is inadequate, missing disclosure of plan impacts, lacking in meaningful and enforceable policies (e.g., substituting "shall" with "should"), incompletely quantified, and lacking mitigations for cumulative and incremental impacts.

Thank you for your time and consideration.

Steve Nash
 2211 Laurel Valley Place
 Oxnard, CA 93036
 805-485-3626

I197-5
 cont.

I197-6

| | |
|------------------------|----------------------------------------|
| Letter I197 | Steve Nash February 26, 2020 |
|------------------------|----------------------------------------|

This comment letter repeats many of the same comments provided in Letter I87. The responses below provide cross references to the portions of Letter I87 where responses to the same comments have already been provided.

- I197-1 The comment requests additional details related to implementation of the 2040 General Plan and does not provide input related to the adequacy of the draft EIR. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I197-2 Refer to response to comment I87-3 regarding the commenter’s suggested addition to the energy thresholds of significance in the draft EIR.
- I197-3 Refer to response to comment I87-4 regarding implementation of the 2040 General Plan.
- I197-4 Refer to response to comment I87-5 regarding the thresholds of significance used in the draft EIR to evaluate greenhouse gas emissions.
- I197-5 Refer to response to comment I87-6 regarding implementation of the 2040 General Plan.
- I197-6 Refer to response to comment I87-7 regarding the draft EIR’s impact conclusion for cumulative greenhouse gas emissions and overall adequacy of the draft EIR.

From: S. Colome <sdcolome@gmail.com>
Sent: Wednesday, February 26, 2020 7:48 PM
To: Curtis, Susan; General Plan Update
Subject: Comment Letter on DEIR and 2040 GenPlan Draft
Attachments: Comment Letter on the Draft Environmental Impact Report.docx

Letter
I198

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Hello Susan,

Please find attached comments I was able to produce in the time allotted. More can be said as the document is lengthy and complex. To facilitate public review the County should have provided revisions to the draft GenPlan in legislative format in the interest of greater transparency. It was a challenge and time-consuming to search out changes from the prior draft and identify responses by County to public comments made in the revised draft. The GHG calculations and tables in Appendix D were also left uncollated and are impossible to validate without access to the "proprietary" model. My comments focus on the attempt by County to embed a CAP in the GenPlan, and on the DEIR sections that address the CAP. I am sorry to be so critical, but I am afraid the County has completely failed to produce a viable CAP.

Regards,

Steven Colome, ScD

I198-1

**Comment Letter on the Draft Environmental Impact Report (DEIR)
for the Ventura County Draft 2040 General Plan**

**Statement of Dr. Steven Colomé,
February 26, 2020**

Climate is the defining challenge of the 21st Century-UC Berkeley¹

I conducted a preliminary review of the Draft EIR for the County’s 2020-2040 General Plan (GenPlan) Update, focusing on the goals, policies, and implementation plans for the Climate Action Plan (CAP) currently incorporated into the draft GenPlan. I do not find that the County has adequately addressed deficiencies in the process, content or promised corrections from earlier drafts of the plan. Consequently, the Draft EIR is deficient in meeting the greenhouse gas (GHG) reduction goals of the State, and even the County’s own stated GenPlan goals. Therefore, the County cannot claim that a CAP is yet contained as part of the GenPlan.

I198-2

The next decade is critical for turning around the global reliance on fossil fuels; and this is an essential period for doing all that can be done at every level of government to combat the crisis that is already upon us.

An EIR is intended as an informational document to provide decision-makers with a factual basis for their decisions. An EIR must describe existing conditions clearly and accurately, evaluate the potential impacts of the project (in this case the General Plan Update), identify and quantify cumulative impacts, evaluate alternatives, and mitigate significant impacts.

I198-3

I am not pleased to report that the DEIR has failed on each and every one of these expectations.

General Plans are required by the State of California and represent the guiding land use document, sometimes referred to as the ‘constitution’, for cities and counties. All land-use policies, ordinances and regulations must be consistent with the General Plan.² California has recently included an option for municipalities and counties to include a Climate Action Plan (CAP) into a GenPlan; and Ventura County (VC) has attempted to develop such a plan during their GenPlan Update process.

I198-4

The problem is that the CAP incorporated into the County draft plan, and accompanying DEIR, fail to make the necessary hard choices and do not contain or describe an acceptable CAP.

¹ <https://vcresearch.berkeley.edu/energy>

² <http://opr.ca.gov/planning/general-plan/guidelines.html>

Failure of the County’s Draft GenPlan and CAP:

- The global climate challenge requires that we take an “all hands-on deck” approach to reducing greenhouse gases (GHG) at every level of government.
- The current policies in the draft GenPlan, and proposed CAP, are inadequate to meet our County’s proportional contribution and needed commitment to addressing the climate crisis. The draft CAP will not adequately contribute toward making the County carbon neutral or meeting the clear goals for GHG emission reductions contained in the draft GenPlan.
- The draft CAP made no attempt to seek input from the ‘deep bench’ of climate expertise that we have in California, including many of the key members of the IPCC.³
- The draft CAP lacks sufficient metrics for evaluating whether the goals of the plan are being met. Policies should have clear action terms like: “by 2024 90,000 native trees shall be planted”. Instead, as an example from Chapter 6 on *Conservation and Open Space*, a draft CAP policy (COS3.2) reads: “The County shall encourage the protection of urban forests and native woodlands, savannahs, and tree canopy along State or County designated scenic roadways.” There are too many “shall encourage” clauses within the CAP policies and this language does not provide clear policy direction or evaluation standards; leading to qualitative policies that are impossible to measure and evaluate.
- The draft CAP barely mentions oil and gas production in VC, which is the third largest producer of fossil fuels in CA on a BTU basis, behind only Kern and LA Counties. The GenPlan and DEIR need more complete description of the oil and gas production activity in Ventura County, including the CO₂ equivalent emission of these fuels that are, to a large extent, transported out of the county to refineries in other jurisdictions.
- This oil and gas (O&G) production takes place under county permits and must be included in the emission inventory.
- To meet the GHG emission reduction goals it will be necessary to show the systematic reduction of this portion of the County’s inventory. This substantial source of GHG emission is ignored in the present DEIR and GenPlan draft. There is no good excuse for this omission, which has been pointed out in prior public comments.
- When we properly count the ‘downstream’ use and combustion of fossil fuels extracted in the county, our GHG ‘footprint’ almost triples. These downstream GHG emissions must be counted in the emission inventory and a commitment must be made to wind down this activity by the end of the GenPlan period in 2040. The planet demands it.
- Methane emissions are improperly handled in the DEIR and CAP and consequently appropriate policy options have not been made available to County decision makers⁴.

I198-4
cont.

I198-5

³ See Attachment 1

⁴ See Attachment 2

- The emission inventory not only uses a scientifically inappropriate GWP value of methane for policy development, but the County has missed important emission sources and source strengths—as recently identified by JPL and NASA.⁵
- NOP and other public comments made during the GenPlan development suggested that the county reduce O&G production by 10%/year in order to systematically and consistently match the reduction in production with the necessary reduction in consumption of fossil fuels to meet state and county GHG emission goals. This approach was wrongly rejected by the County in 6.4.4 (pg 6-8) based on unquantified emission reductions claimed to derive from alternate policies. None of the listed alternate policies and programs contained in the County response in 6.4.4 represent anything near the needed gradual and consistent winding down of production activity.
- The problem with not directly addressing the wind-down of O&G production is that even more drastic and economically consequential remedies will be required when it is recognized that the current draft policies are insufficient to meet goals, and when the county realizes that the expected 2030-2050 GHG reductions will not be met.
- It is better to immediately confront that future and begin the logical, necessary and systematic process of reducing simultaneously the production and consumption of fossil fuels. **The economic and environmental consequences of delay far exceed the immediate costs of planning and implementing a rational and gradual cessation of O & G production.** This must be an integral part of a CAP for a County like ours and is essential to avoid unnecessary future disruption and even greater costs.
- The current emission inventory is upside down and is derived from a top-down utility-centric approach to calculating GHG emissions. This led to missing controllable emission sources and the incorrect calculation of impacts from key sources. For example, the extent of methane leaks throughout the County is seriously underreported.⁶ A new, bottoms-up emission inventory conducted by a competent and qualified outside engineering, scientific and planning team is needed in order to develop meaningful and cost-effective emission reduction strategies. These issues are complicated and require expert input.
- In Chapter 10 on *Economic Vitality* the county embraces clean energy in the most modest and inadequate way. For example, policy EV4.2 states that the county “shall support the development” of green technologies. By contrast LA County and City are aggressively attempting to attract and promote green energy jobs. Again, measurable standards are needed to evaluate progress. The county should strive to be a state-wide and national leader in clean energy and not a laggard and follower.
- VC should commit to adding two clean energy jobs for every job lost in the oil patch; and the county should provide for a just employment transition by insuring that current oil and gas workers are able to remain on the job while production is gradually decreased,

I198-5
cont.

I198-6

I198-7

⁵ See Attachment 3

⁶ <https://www.jpl.nasa.gov/news/news.php?feature=7535>

well fields are shut in and the fields are restored to a condition where final closure and land rehabilitation is accomplished. Retraining should also be provided to transition any displaced oil workers into the faster-growing opportunities in the clean energy sector.

- Existing buildings should be incentivized to improve energy efficiency and convert to all-electric appliances.

I198-7
cont.

These factors add up to the current plan being totally inadequate to justify the label of a Climate Action Plan. It is too late in the process to salvage and develop a proper CAP in the time remaining to adopt the EIR and approve the General Plan before the end of this year.

All references to a CAP currently included within the GenPlan should be deleted (e.g., P. 2-5 of the Executive Summary: “The 2040 General Plan also includes a Climate Action Plan...”) The seven quantified GHG policies listed in *Appendix D: GHG Calculations* in the GHG Gap Analysis table, are insufficient to constitute mitigation strategies under a county general plan and fail to meet the GenPlan goals and state mandates for GHG emission reduction. Due to poorly constructed and unenforceable policies, only these seven policies were available to attempt a crude quantitative Gap Analysis. Unfortunately, that quantitative analysis is mostly wishful thinking and could not be made to ensure the County would meet GHG reduction goals.

While the County extolled that the GenPlan contains 118 climate-related policies, only slightly less than half are associated with implementation programs and the policies are so weak as to be qualitative and without quantifiable GHG reduction. As has been pointed out in earlier public comments, the qualitative measures are not sufficient to meet the climate goals and fail to demonstrate a commitment on the part of the County to seriously attempt to meet our share of GHG emission reduction. Instead, we should be leaders showing the way for other jurisdictions, particularly since we are on the front lines of the climate crisis with wildfires, droughts and sea-level rise.

I198-8

A viable option for the County is to concurrently undertake a two-to-three-year project to develop a serious CAP using the scientific, planning and legal expertise that abounds in this state in order to produce an acceptable Climate Action Plan. The County should develop a plan that we can proudly promote, and that has us meeting our moral and ethical contribution to the global climate challenges.

The project to develop a proper CAP should be undertaken as a mitigation to the currently inadequate DEIR and failure to demonstrate an ability to meet state climate goals. The remaining portions of the draft GenPlan could then proceed to approval during the current year as a new and technically competent team with advanced engineering, scientific, planning and legal skill are brought in to develop a CAP capable of demonstrating that the County will meet and exceed its obligations under CEQA and take a leadership role in the climate crisis that is now upon us.

Attachment 1

Climate Policy and Science Programs in California

We have less than a decade to ensure the habitability of our planet. Policy decisions to prevent the untenable costs of inaction rely on the best scientific, legal and planning minds.

We do not have to go far in order to access some of the leading scholars on the causes, technical solutions and adaptation to climate change. California has several of the world-leading institutions working on solutions to this global challenge.

Climate change and the current climate crisis is one of the most complex environmental challenges the world has ever faced. If Ventura County does not give climate status the highest attention, utilizing the tremendous technical and scientific skill we have within driving distance of this county, the General Plan is guaranteed to be out of date before it is even approved. That unfortunately appears to be the case.

A partial listing of resources that Ventura County could and should access as it develops General Plan policies to reduce the County's contribution to GHG and plan for changes to the climate and environment we cannot control. Unfortunately, the County has yet to tap the deep bench of expertise this state has to offer.

UC San Diego/Scripps Institute – Center for Climate Change Impacts and Adaptation

<https://scripps.ucsd.edu/centers/adaptation/>

Scripps has been a world-leader in climate science since the early 1960s with scientific giants including Drs. Charles David Keeling and Roger Revelle. That tradition continues to this day with the Center's mission statement: *"to build interdisciplinary partnerships to advance climate change science and test adaptation solutions."*

I198-9

UC Irvine

"Addressing the urgent challenges we face in air and water quality, human health, climate change, as well as green technology through the integration of research, education, and outreach." The foci of this group of scholars encompasses atmospheric chemistry, climate modeling, fuel cells and combustion technologies, and health effects.

<http://airuci.uci.edu/>

https://scienceandtechnology.jpl.nasa.gov/people/e_rignot

<https://www.ess.uci.edu/~sjdavis/>

UC Riverside/Global Climate and Environmental Change – Dept of Earth Sciences

<https://earthsciences.ucr.edu/gcec.html>

"The decisions about climate change society makes in the next decade will determine the habitability of our planet." The focus of this group is to rigorously measure changes in the environment caused by climate alteration.

Caltech-Environmental Science and Engineering

<http://ese.caltech.edu/>

“The Environmental Science and Engineering (ESE) program reaches across traditional disciplinary boundaries in its aim to provide a comprehensive understanding of our complex environment and offer efficient and effective engineering solutions to environmental problems... Research and teaching in Environmental Science and Engineering (ESE) span the large scales of global climate variations, the local scales of urban air pollution, and the microscales of microbial ecosystems.” With over 20 faculty the program focuses on the science and engineering of atmospheric chemistry and climate effects.

UCLA-Institute of Environmental Sustainability/Center for Climate Science

“UCLA’s Center for Climate Science enables real-world climate change problem-solving by leveraging fine-scale projections of future climate to conduct interdisciplinary climate impacts research of practical use to stakeholders.” They are working to ensure water sustainability in light of climate change, are conducting regional climate assessments, and evaluating the future of drought and fire, and vulnerability of the electric grid to rising temperatures.

<https://www.ioes.ucla.edu/climate/>

<https://law.ucla.edu/centers/environmental-law/emmett-institute-on-climate-change-and-the-environment/about/>

<https://law.ucla.edu/faculty/faculty-profiles/ann-e-carlson/>

Jet Propulsion Laboratory (JPL) Center for Climate Sciences

<https://climatesciences.jpl.nasa.gov/>

“JPL is leading a project for NASA that will bring satellite observations into a format that will make them easy to compare with climate models.” Investigators at JPL work closely with other scientists and engineers in the NASA Global Climate Change program: <https://climate.nasa.gov/>

UC Santa Barbara Marine Science Institute (MSI)/Climate Change Science and the Bren School of Environmental Science and Management

<http://msi.ucsb.edu/people/climate-change-science> <https://www.bren.ucsb.edu/>

“Research in climate change science at MSI examines how climate change has affected ocean and freshwater conditions in the past as well as how it is likely to affect them in the future..... Anthropogenic climate change has been called “the great moral challenge of our century,” and the greenhouse gases emitted by our consumption of fossil fuels are its primary driver. Mitigating or adapting to climate change will require a fundamental transformation of humanity’s systems of energy production and consumption.”

I198-9
cont.

Stanford University Earth Sciences/Climate Solutions

“Stanford Earth faculty work across disciplines—and at the interface of atmosphere, ocean, land, and ice systems—to characterize climate changes as well as potential responses and outcomes that matter to people.” The School has program in limiting and adapting to climate change---two areas central to Ventura County’s General Plan Update.

“From coastal communities adjusting to sea level rise to farmers struggling with drought or extreme temperatures, people are having to respond to new pressures and vulnerabilities in the places they live and work.” Faculty across all seven schools at the University are currently doing research related to energy, climate and economic vitality through the Stanford Woods Institute fo the Environment <https://woods.stanford.edu/research/focal-areas/climate> where it is recognized that *“Climate change is one of the most complex environmental challenges the world faces today.”*

Precourt Institute for Energy <https://energy.stanford.edu/about/about-us>

“Stanford University’s Precourt Institute for Energy concentrates the full talents of the university on energy research and education, from basic science and technology, to policy and business.” The Precourt Institute draws on experts and resources across the university to help accelerate the transition to an affordable, low-carbon energy system for the world. More than [200 Stanford faculty members and staff scientists](#) in dozens of academic departments, independent labs and research programs work on energy-related problems. The Precourt Institute is the focal point at Stanford for scholars, business leaders, policymakers and others seeking solutions to the world’s most difficult energy challenges. “

and other interdisciplinary programs at the University:

<https://earth.stanford.edu/earth-matters/climate-change>

<https://woods.stanford.edu/people/michael-wara>

<https://law.stanford.edu/directory/michael-wara/>

<https://publicpolicy.stanford.edu/people/michael-wara>

<https://law.stanford.edu/steve-taylor-center-for-energy-policy-and-finance/our-people/#slnav-past-fellows>

<https://profiles.stanford.edu/noah-diffenbaugh>

I198-9
cont.

UC Berkeley, Energy, Climate & Environment

<https://vcresearch.berkeley.edu/energy>

“Energy is the defining challenge of the 21st century. Leading the way on finding solutions to some of the most important global challenges, UC Berkeley and Berkeley Lab are pooling their vast expertise to help achieve an affordable, sustainable and clean supply of global energy.

Faculty and researchers at UC Berkeley and the Berkeley Lab are developing renewable and sustainable energy sources, advancing new technologies to help curb energy demand, understanding the implications for climate change and the environment, and formulating appropriate and timely policy responses.”

Their programs are organized around the Climate Readiness Institute and the Berkeley Energy and Climate Institute in addition to programs throughout the University.

UC Davis/Science & Climate: Climate Change from Science to Solutions

<https://climatechange.ucdavis.edu/news/>

<https://www.ess.uci.edu/~sjdavis/>

With a major emphasis on ways in which agriculture can contribute to climate solutions, UC Davis has a lot to offer Ventura County. Their research ranges from renewable energy solutions to responsible land use, creating flood resistant coastlines, and helping species adapt.

“When we think of climate change solutions, what typically comes to mind is the transportation we use, the lights in our home, the buildings we power and the food we eat. Rarely do we think about the ground beneath our feet..... Solutions are actions that work: They address causes, lessen impacts, raise awareness and even create new opportunities. California offers one example of how solutions can involve and benefit multiple parties. The state demonstrates that strong economic growth is compatible with strong actions to limit global warming and related risks.”

I198-9
cont.

ATTACHMENT 2

Global Warming Potential (GWP) for Methane

The County Staff and Consultants appear to misunderstand the proper use of global warming potential (GWP) values for methane (natural gas) and the implications of its proper use for climate-related policies.

The US EPA, California Air Resources Board and Intergovernmental Panel on Climate Change (IPCC) all advocate use of a consistent GWP for *accounting purposes* in inventory development. This is essential if we are to compare cross-sectional progress. For example, comparing emissions from the US and EU. A consistent value is also important for temporal comparisons. Again, for example, to track the progress of emission reductions over time in California.

However, failure to properly account for the ‘true’ short-term global warming potential of methane leads to missed emission-reduction opportunities and policies. That is because the accounting convention for emission inventories is not based on the current scientific understanding of the near-term climate impacts from methane emissions. Control of methane sources today provides a powerful short-term mechanism for reducing climate impacts when understood in the context of a proper timeframe that is on the order of the atmospheric lifetime of this gas.

I198-10

It is useful to review the relevant section from AR5:

“Global warming potential (GWP) is a relative measure of how much heat a [greenhouse gas](#) traps in the atmosphere. It compares the amount of heat trapped by a certain mass of the [gas](#) in question to the amount of heat trapped by a similar mass of [carbon dioxide](#). A GWP is calculated over a specific time interval, commonly 20, 100 or 500 years. GWP is expressed as a factor of carbon dioxide (whose GWP is standardized to 1). In the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, [methane](#) has a lifetime of 12.4 years and with climate-carbon feedbacks a global warming potential of 86 over 20 years and 34 over 100 years in response to emissions. User related choices such as the time horizon can greatly affect the numerical values obtained for carbon dioxide equivalents. For a change in time horizon from 20 to 100 years, the GWP for methane decreases by a factor of approximately 3.⁷ The substances subject to restrictions under the [Kyoto protocol](#) either are rapidly increasing their concentrations in [Earth's atmosphere](#) or have a large GWP”. GWP values and lifetimes from 2013 IPCC AR5 p714⁷

⁷ <http://www.climatechange2013.org/report/full-report/>

The County staff and climate consultant insisted during development of the GenPlan on using an outdated global warming potential for methane, claiming that emission inventories were mandated to be based on the outdated IPCC Second Assessment Report (SAR) GWP value of 21x the potency of CO₂, (based on a 100-year timeframe). The County continued to insist on use the outdated SAR value of 21 through most of the GenPlan deliberations based on the false claim that a GWP value of 21 was required by CARB and was part of a (nonexistent) *EPA Mandatory Rule*. What is ignored by that logic is that the only reason for this convention is to be able to compare ‘apples to apples’ from jurisdiction to jurisdiction and over time within a single jurisdiction. This outdated value is only an *accounting* convenience and does not reflect current scientific understanding.

Responding to NOP comments, the staff and consultants finally updated their use of the 100-year value for methane to be consistent with the AR5 IPCC GWP value of 28x the potency of CO₂ in the DEIR⁸:

“GWP values apply a weight to gases that have been determined by scientific studies to have increased GHG effects relative to the most common GHG, carbon dioxide (CO) [sic]. These weighted gasses are combined with CO [sic] to form a common unit of measurement called CO₂e. For this analysis GWP values of 28 for methane and 265 for nitrous oxide were used for consistency with AR5 (Myhre et. al 2013).” Pages 4.8.4-5, DEIR

Unfortunately, the GWP value of 28 is still only an *accounting* value. Policy, however, should and must be based on science. The ‘real’ impact of methane on climate is approaching four times the *accounting* value used by the County and its consultant.

The reason this is important for the DEIR and draft GenPlan is that numerous sources of methane are permitted and regulated by the County, including oil & gas production, landfills, and wastewater treatment facilities.

Turning to *Appendix D: GHG Calculations* of the DEIR, it is unclear from the unannotated tables what GHG value was used in the quantitative modeling, as numerous values are given throughout the tables⁹.

For example:

- The *Assumptions* table in Appendix D references the IPCC Fifth Report GWP value of 28 but does not indicate whether that is the value that is used in the model (a clear reason why a proprietary model is totally inappropriate for use in this public process). The DEIR states that the value of 28 was used but there is no way for an outside reviewer to verify that fact, especially when tables in Appendix D contain several different 100-year and 20-year GWP values.
- Further, the cited IPCC value of 28 is for a 100-year timeframe while the atmospheric lifetime for methane is on the order of 7 to 10 years compared with up to 200 years for carbon dioxide. Therefore, using a 100-year timeframe for methane’s GWP is appropriate for *inventory*

⁸ https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf

⁹ This is an example of why it is completely inappropriate for the County to have allowed their environmental consultant to produce results using a proprietary model which the consultants refused to make available for verification of inputs, outputs and model execution.

I198-10
cont.

accounting purposes only but completely inappropriate for development of CAP policies and GHG mitigation strategies – **climate policies must be based on methane science and not on an accounting convention designed to provide useful comparisons and promote tracking evaluations.**

- A more appropriate and scientifically valid GWP value for policy evaluation is between 85 and 100 (consistent with the atmospheric methane lifetime). Use of this scientifically appropriate value has dramatic implications for the climate impacts and mitigation strategies within Ventura County. A simple sensitivity analysis within this range of GWP values would direct the county decision-makers to appropriate and necessary policies to mitigate those impacts.
- Much later in Appendix D in the table on *Residential Wastewater Methods*, the GWP for methane is given again as 21. So, which was used in the modeling? Once more, this points out the inappropriateness of the county allowing the consultant to build and rely upon a proprietary model.
- Similarly, in the table on *Stationary CH4 from Incomplete Combustion of Digester Gas*, the GWP for methane is given as 21.
- Further into Appendix D on the *Conversions and GWP* table the IPCC Fifth Assessment value of 28 (100-year timeframe) is listed along with the IPCC Second Assessment Value of 21 and the Fifth Assessment 20-year value of 84. The actual value in the Fifth Assessment was presented as a range of 84-87 for 20 years.¹⁰
- This illustrates the problem with the County having allowed the environmental consultant to provide GHG data that is processed through a proprietary model. This is inconsistent with transparency and integrity of data used for making public policy. If a competent reviewer cannot look under the hood of a model to inspect the engine and evaluate its veracity, there is no way to trust the model results. As all modelers know, it's garbage-in-garbage-out, and without being able to check the engine, there is no way to know whether the model itself is valid.
- As has been suggested by several reviewers, the consultants should have included a clear sensitivity analysis of GHG emissions using alternate GWP values for methane. A reasonable sensitivity range would be to use a GWP value of 28 and 100. I can state with confidence that County decision-makers would need to consider additional methane reduction policies if they were to evaluate the implications for the higher GWP.
- As a result, the County is sorely deficient in policies within the draft GenPlan to address the various control options available for methane.

I198-10
cont.

¹⁰ <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>

ATTACHMENT 3

Methane: Missed Emission Inventory Sources

NASA/JPL has recently completed a multi-year study with remote measurement of methane emissions throughout the state of California.¹¹ Ventura County is shown as having numerous 'hot spot' sources of methane associated with facilities under permit and regulation by the County. Prior public comments have identified missed sources of this GHG during the GenPlan review process.



I198-11

An article published last week in the prestigious scientific journal *Nature* indicates that anthropogenic (man-made) emissions are likely to be up to 40% higher than previously estimated.¹² From that article:

"Atmospheric methane (CH₄) is a potent greenhouse gas, and its mole fraction has more than doubled since the preindustrial era. Fossil fuel extraction and use are among the largest anthropogenic sources of CH₄ emissions, but the precise magnitude of these contributions is a subject of debate.... This result indicates that anthropogenic fossil CH₄ emissions are underestimated by about 38 to 58 teragrams CH₄ per year, or about 25 to 40 per cent of recent estimates."

¹¹ <https://methane.jpl.nasa.gov>

¹² <https://www.nature.com/articles/s41586-020-1991-8>

| | |
|--------------------|-------------------------------------------|
| Letter I198 | Steven Colome February 26, 2020 |
|--------------------|-------------------------------------------|

- I198-1 This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Also, the comment summarizes more detailed comments provided elsewhere in the comment letter. See responses to comments I198-2 through I198-11, below, for responses to the commenter’s more detailed comments.
- I198-2 The comment states that the draft EIR greenhouse gas analysis does not meet the greenhouse gas (GHG) reduction goals of the State. The draft EIR correctly includes an analysis of the 2040 General Plan’s consistency with State goals. Page 4.8-52 of the draft EIR acknowledges this in its post mitigation significant conclusion and states “although the 2040 General Plan would not conflict with State GHG reduction targets and recommended local actions established in the 2017 Scoping Plan, and the 2040 General Plan would set future GHG emissions on a downward trajectory consistent with State reduction targets, it cannot be determined at this program level of analysis that future emissions within the county meet State 2030 and post-2030 targets for GHG reduction. Therefore, this impact would be significant and unavoidable.”
- Contrary to the commenter’s assertion, neither Climate Action Plans (CAPs) nor General Plans are obligated to meet State goals. For additional detail pertaining to the development of the 2040 General Plan policies and programs, refer to Master Response MR-1.
- I198-3 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.
- I198-4 This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Also refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions..
- I198-5 The comment highlights the emissions from the oil and gas sector, suggesting that petroleum production and downstream uses of petroleum should be included in the GHG inventory, and that the global warming potential for methane used in the inventory is inaccurate. The comment also suggests that the 2040 General

Plan should include a systematic reduction in petroleum extraction, and questions the dismissal of the Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative in the draft EIR.

Refer to Master Response MR-1 regarding concerns with the completeness and accuracy of the baseline GHG inventory, particularly regarding GHG emissions associated with oil and gas production. Emissions associated with oil and gas wells were included in the inventory. Petroleum use within the county is also accounted for. Use of oil and gas produced in the county but consumed outside of the county is not included in the inventory. Refer to Master Response MR-1 and response to comment O1-2 for a discussion of the global warming potential of methane.

The draft EIR describes, but dismisses from detailed evaluation, an alternative to the project that would limit oil wells in the county. As noted by the commenter, this dismissal was based, in part, on the fact that the 2040 General Plan includes policies that address the address the emission of air pollutants from these wells. For the purposes of evaluation under the California Environmental Quality Act, alternatives should address the significant environmental impacts of implementing the whole of the project while obtaining the project's objectives. The Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative focuses on one specific land use and does not comprehensively address most of the basic project objectives. As explained in the draft EIR analysis of alternatives:

As an initial matter, major elements of this alternative are included in the 2040 General Plan. For example, the 2040 General Plan includes several policies that would have the effect of limiting increases in the number of new discretionary oil and gas wells in the county. Policy COS-7.2 would require that new oil wells subject to discretionary approval are located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school. The substantial increases in setback requirements for new wells subject to discretionary permitting established by this policy would likely reduce the number of new discretionary oil and gas wells by prohibiting new discretionary wells within certain areas. In addition, there are two policies proposed in the 2040 General Plan that would result in new requirements that would apply to new oil and gas projects subject to discretionary action by the County that would reduce the number of new discretionary oil and gas wells without placing a physical limitation on location or access: Policy COS-7.8 would require oil wells to use pipelines to convey oil and produced water (rather than trucking) and Policy COS-7.9 would require that gases emitted from all new discretionary oil and gas wells are collected and used or removed for sale or proper disposal (rather than flaring) except for cases of emergency or for testing purposes. For several economic, legal, technological, and other reasons described in more detail in Section 4.12, "Mineral and Petroleum Resources," Policies COS-7.8 and COS-7.9 could make new oil and gas wells subject to the County's discretionary approval process infeasible (page 6-9).

Refer also to Master Response MR-4, which discusses the proposal to phase out oil and gas production.

- I198-6 This comment asserts that the GHG inventory does not include emissions sources such as methane leaks and should be revised. Refer to Master Response MR-1 for a detailed discussion of the inventory prepared for the 2040 General Plan, including discussion of fugitive methane emissions.
- I198-7 The comment expresses disapproval of the 2040 General Plan’s policies related to clean energy. The comment suggests additional topics that could be considered in the 2040 General Plan, specifically related to employment in clean energy and incentives to improve energy efficiency, and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- The comment suggests that the County should adopt a policy of creating two clean energy jobs for every job lost due to phase out of oil and gas production. Note that the 2040 General Plan includes Policy EV-6.3, in addition to Policy EV-4.2, “prepare workers for jobs in green construction.” Refer also to the discussion of the Carbon Neutrality Alternative in Chapter 6, “Alternatives,” the draft EIR, which explains that the County has limited authority to set aside jobs in the renewable energy sector specifically for individuals employed in the oil and gas industry. Refer to responses to comments O1-29 and I176-3 for a discussion of incentives and energy savings from the existing building stock.
- I198-8 The comment’s requests to delete references to “CAP” from the 2040 General Plan are noted. Note that there is no statutory or regulatory requirement defining what constitutes a CAP. Refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce GHG emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions
- The comment states that the draft EIR should recommend the development of a CAP that meet State goals as a mitigation measure. The County has revised Mitigation Measure GHG-4 to clarify that, “The CEC [Climate Emergency Council] shall demonstrate in the materials submitted to the Board of Supervisors that the proposed subprograms and policies would result in quantifiable GHG emission reductions that further the County’s progress towards achieving the 2030, 2040, and 2050 GHG reduction targets and goals established in the 2040 General Plan.” The full text of revised Mitigation Measure GHG-4 is provided in final EIR Chapter 3, “Revisions to the Draft EIR.”
- I198-9 The comment references attachments to the main body of the letter, which provides a list of experts that the commenter believes should have been consulted during preparation of the 2040 General Plan. The County has reviewed the attachment and determined that it did not contain comment on the content or conclusions of the draft EIR, nor did it raise any significant environmental issues for which a response is required.

- I198-10 The comment references attachments to the main body of the letter and is related the global warming potential of methane assumed in the GHG inventory. GHG emissions for the unincorporated county in 2015 are summarized in Table 4.8-1 on page 4.8-5 of the draft EIR. Page 4.8-4 includes a discussion explaining the methodology used to determine these levels of emissions. To reiterate what is explained in the draft EIR, the 2015 community-wide GHG inventory was prepared using the U.S. Community Protocol for Accounting and Reporting of GHG Emissions, Version 1.1 with the most recent global warming potential values derived from the Intergovernmental Panel on Climate Change's Fifth Assessment Report, which is the most recently published assessment report. These global warming potential values represent the current climate change science and are appropriate for use in this analysis. Refer to Master Response MR-1 for further discussion. The County has reviewed the attachment and determined that it did not contain comment on the content or conclusions of the draft EIR, nor did it raise any significant environmental issues for which a response is required. All comment letters submitted to the County on the draft EIR are provided with complete attachments in Attachment 1 to this final EIR.
- I198-11 See Master Response MR-1 for detailed information pertaining to the development of the GHG inventory prepared for the 2040 General Plan and draft EIR, including methane and the recent National Aeronautics and Space Administration report.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Friday, February 14, 2020 11:52 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
I199**

You have a NEW Comment

Name:

Susan Chapin

Contact Information:

8056493506

Comment On:

Draft Environmental Impact Report

Your Comment:

revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions. The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

I
I199-1

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|------------------------|-------------------------------------------|
| Letter I199 | Susan Chapman February 14, 2020 |
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I199-1 The comment recommends that the County adopt the strongest measures to ensure greenhouse gas emissions are curbed. This comment expresses an opinion about the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan. Refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions.

From: Sue Poland <suepoland@sbcglobal.net>
Sent: Tuesday, February 25, 2020 3:25 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

Letter
I200

Dear County Board of Supervisors,

I have grave concerns about the General Plan EIR and the way it's being pushed through with an incredibly brief review period.

I200-1

Among my concerns are provisions that would affect all of us who own or live in older homes... Namely: The County failed to analyze the impact of solar installation and net zero energy modifications on historic resources. Proposed Mitigation Measure CUL-1C (Impl Program COS-X) demands that "before altering or otherwise affecting a building or structure 50 years old or older..." the applicant must retain a qualified architectural historian. This means everyone who has a house built in 1970 or older who wants to upgrade to more energy efficient standards must first consult with and get a report/approval from an architectural historian. This will include improvements that the County is claiming to "encourage" such as solar installation, energy efficient windows, etc.

I200-2

Clearly this requirement will either delay or put an end to people moving to more energy efficiency building standards in their homes, which will, in turn, impact the County's ability to achieve their goals for net-zero carbon building and GHG emissions. As the owner of a simple home initially built in 1940, this would be an unreasonably burdensome requirement.

Thank you for giving this point full consideration. I look forward to hearing your response to this particular item.

Sincerely,
Susan Poland
Oak View

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| Letter I200 | Susan Poland February 25, 2020 |
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I200-1 This comment regarding the adequacy of the draft EIR is noted. However, no specific issues related to the content, analysis, conclusions, or overall adequacy of the draft EIR are raised in this comment. Therefore, no further response is provided.

I200-2 The comment states that the draft EIR does not analyze the impacts of solar installation and net zero energy modifications on historic resources. The draft EIR analyzes at a programmatic level, the physical changes that could occur upon implementation of the 2040 General Plan. While policies and programs relevant to each resource topic (specifically, those relevant to the impact analysis performed under the significance criteria for that topic) are identified throughout the draft EIR in Sections 4.1 through 4.17, the complete draft 2040 General Plan was reviewed in preparation of the draft EIR. Refer to Section 4.4, “Cultural, Tribal Cultural, and Paleontological Resources,” for an analysis of the effects of 2040 General Plan policies on historic resources.

The comment also asserts that Mitigation Measure CUL-1c would result in an unreasonably burdensome requirement that would discourage properties owner from conducting energy improvements to their properties. Mitigation Measure CUL-1c does not include the provision about evaluation of structures over 50 years old quoted by the commenter and would not preclude energy efficiency upgrades. Mitigation Measure CUL-3 does propose project-level historic resource surveys, but would only apply during project-specific environmental review of discretionary development. Improvements involving basic maintenance and repair or minor rehabilitation that do not involve a change of design, material, appearance or visibility of the property and its character-defining features further described in Ventura County Cultural Heritage Board Resolution No. 2017-2.1, including solar installations installed in a manner that minimizes visibility from any public right-of-way and window upgrades involving like-for-like materials on residential properties are not subject to discretionary review and would not be subject to this requirement. Also refer to the response to comment O32-27.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 6:57 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

| |
|------------------------------|
| Letter I201 |
|------------------------------|

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:
 Teal Rowe
Contact Information:
 teal@tealrowe.com
Comment On:
 Climate Action Plan

Your Comment:

I believe that adopting CFROG's recommendations for the climate action plan (CAP) is a must~ Please add this to the 2040 General Plan Update. Thank you

I201-1

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| Letter I201 | Teal Rowe February 26, 2020 |
|------------------------------|---------------------------------------|

I201-1 The commenter refers to a letter submitted by Climate First: Replacing Oil & Gas. See responses to Letter O20.

REC'D FEB 05 2020

3152 Shad Court
Simi Valley, CA 93063
February 5, 2020

Letter
I202

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Avenue., L #1740
Ventura CA 93009-1740

Re: The 2040 General Plan Update's Draft Environmental
Impact Report's Public Review Period.

Dear Ms. Curtis:

The following comments, questions, and suggestions address Section 4.9 (Hazards, Hazardous Materials and Wildfire) of the Draft EIR's Chapter 4 (Environmental Setting, Impacts, and Mitigation Measures). My concerns come not from the study of or employment in these fields, but from life's experiences: years of attending Santa Susana Field Laboratory (Rocketdyne) meetings, addressing City, County, State and Federal government emergency plans, and following wildfire incidents since 2003 in the news on television, newspapers, and now the Internet. More devastating than the devastation left behind by the extraordinary disasters is the public's perception that first responders will always rise to the occasion to save lives, property, businesses, jobs, ecosystems, and California!!!! Nothing could be further from the truth!!!!

I202-1

#1 - Pages 4.9-2 and 4.9-3, while the Thomas Fire (2017) and Woolsey Fire (2018) are mentioned, so should the the Hill Fire (2018), and the October 30, 2019 Easy Fire be included in the 2040 General Plan Update! Overwhelming stress on first responders has been attributed to the major incidents occurring: all at once, back-to-back, during hurricane strength winds, and in an all year fire season!!!!

I202-2

#2 - Page 4.9-2, the Ventura County Fire Apparatus Access Code "establishes the minimum and cumulative design and maintenance standards for emergency fire access roads"!!!! First responders will be able to truly respond effectively to and keep people and property safe when maximum standards are the norm!!!!

I202-3

- #3 - Page 4.9-6, Policy HAZ-1.1, the City of Simi Valley back in the 1990's required a Fire Safety Plan for the Big Sky development project. The County must require similar planning documents for proposed development in high fire risk areas!!!!
- #4 - Page 4.9-6, Policy HAZ-1.2, the Ventura County Fire Department's defensible space clear zones is 100', in some cases 200'. Devastating fires show this does not limit the damage from flying embers!!!! In the California Governor's Office 2004 Blue Ribbon Fire Commission's Westlake Village hearing a more comprehensive defensible space was 400'!!!! The Ventura County Fire Department's Fire Hazard Reduction Program (FHRP) must be implemented twice or three times a year to be effective!!!! Are grants available to those property owners who cannot afford additional clean-ups? Include public donations made through Go Fund Me type programs, or by check!!!!
- #5 - Page 4.9-6, Policy HAZ-1.3, are controlled burns truly going to be undertaken? Such clearings would have limited the devastation from the Thomas Fire in Ventura County and Santa Barbara Counties!!!! Was this the same case with the Hill and Woolsey Fires?
- #6 - Page 4.9-6, Policy HAZ-1.4, while I concur with having a Notice of Fire Hazard recorded "with the County Recorder for all new discretionary entitlements (including subdivisions and land use permits) within areas designated as Hazardous Fire Areas by the Ventura County Fire Department or High Fire Hazard Severity Zones by the California Department of Forestry and Fire Protection (CAL FIRE)" more has to be done to inform the public of this! What information is contained in a Notice of Fire Hazard? What law makes the NOTICE a legal document?
- #7 - Page 4.9-6, Policy HAZ-1.5, see COMMENTS 2, 3 and 4! In updates of the County's EOP and the Multi-Hazard Mitigation Plan, the "Team" must include County Planning Commission, and SSFL representatives!!!! Require water trucks on large lots!!!! Such vehicle was instrumental during the 2003 Simi Fire in saving a family's life!!!! Is the County's Emergency Operations Plan truly updated on a tri-annual basis? Evacuation routes must never be second guessed!!!!

I202-4

- #8 - Page 4.9-6, Policy HAZ-1.6, *New Policy*, I concur!
Because people think that "fire safe" means safety
the education programs and information must state
"fire wise"!!!!
- #9 - Page 4.9-6, Policy HAZ-1.7, *New Policy*, I concur!
- #10 - Page 4.9-6, Policy HAZ-1.8, *New Policy*, I concur!
Update of the Santa Monica Mountains Community
Wildfire Protection Plan adopted in 2013 was
supposed to be updated in 2018!!!! What is the
update status of this crucial document?
- #11 - Page 4.9-7, Policy HAZ-5.2, in January, I learned
about the closed Tierra Rejada Landfill's Easy Fire
damage to the gas extraction system(methane), flare
controls, etc.! I have not found the Landfill in
the 2040 General Plan Update and 2018 Background
Report! Because the Landfill's Consortium partners
(4) share costs equally for after closure permit
work, and now for the Easy Fire Emergency repairs
(\$548,554 each), the "66-acre site located 1 mile
west of Madera Road and north of Tierra Rejada Road
along the Arroyo Simi must be included in the 2040
General Plan Update!!!!
- #12 - Page 4.9-7, Policy HAZ-5.3, *New Policy*, I concur!
- #13 - Page 4.9-7, Policy HAZ-5.4, *New Policy*, I concur!
- #14 - Page 4.9-7, Policy HAZ-5.7, *modified*, I concur!
Because the Tierra Rejada Landfill's waste footprint
is 26 acres, it's quite possible that future
development could occur on the 66-acre site!!!!
- #15 - Page 4.9-9, Policy HAZ-12.1, *modified*, I concur with
two means of access! I do not concur with deviation
policy for a single proposed access road!!!!
- #16 - Page 4.9-9, Policy HAZ-12.2, *modified*, the update to
the Ventura County Emergency Operations Plan must
state "tri-annually"!!!! The update to the Ventura
County Hazard Mitigation Plan must state "every
five years"!!!!

I202-4
cont.

#17 - Page 4.9-9, Policy HAZ-12.3, *modified*, interesting that public safety or emergency service facilities should not be sited in the areas listed without hazard mitigation, yet there is no mention of Open Space areas in light of Page 4.9-11 (bottom of page) which allows fire stations in the Open Space land use designation!!!!

I202-4
cont.

#18 - Page 4.9-20, what is the status of the MHMP's "new vegetation management program that provides vegetation management services to elderly, disabled, or low-income property owners who lack the resources to remove flammable vegetation from around their homes" mitigation strategy? Do mobile homes qualify? First responders going door-to-door to alert people during a fire incident must always be utilized even in the age of technological communications!!!!

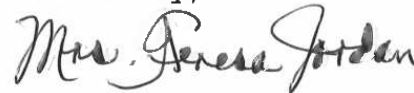
I202-5

#19 - Because the 2040 General Plan Update's January 2018 Background Report has been "Revised" for January 2020, the name "Santa Felica" (Dam) must be corrected to read "Santa Felicia" on Page 11-29, Figure 11-6, Individual Dam Failure Inundation Areas!!!!

I202-6

Ms. Curtis, I kindly request a written response from County staff to my letter. Thank you.

Sincerely,



Mrs. Teresa Jordan

Enclosures:

January 27, 2020, Letter to the Simi Valley City Council, Agenda Item 8A. (2 Pages)

January 30, 2020, Letter to the Ventura County Board of Supervisors, Agenda Item 31. (3 Pages)

January 21, 2020, Letter to the Ventura County Board of Supervisors, Agenda Items 39 and 40. (2 Pages)

I202-7

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| Letter I202 | Teresa Jordan February 5, 2020 |
|------------------------|------------------------------------------|

- I202-1 The comment provides introductory language outlining concerns responded to below. This comment does not raise a significant environmental issue for which a response is required.
- I202-2 The comment states that the draft EIR should include mention of the Hill Fire and Easy Fire. The “Environmental Setting” in Section 4.9, “Hazards, Hazardous Materials, and Wildfire,” provides a brief summary of recent fires in the County. The Hill Fire, and its connection to the Woolsey Fire is explained on page 4.9-3. This information is intended to inform the analysis of the potential to expose people to risk of wildfire, impair implementation of emergency response plans, or exacerbate wildfire risk in Impact 4.9-6. The October 2019 Easy Fire was not included because it occurred after the January 2019 release of the Notice of Preparation.
- The impact discussion describes the existing economic and environmental barriers, acknowledging that “adequate fire response staff may not be available within the county, requiring the need to enlist established mutual aid agreements with other neighboring fire agencies and the California Department of Forestry and Fire Protection” during major or multiple wildland fire events and “response times for a wildland fire event may be inadequate due to insufficient access because of limited lane roads, inadequately maintained roads, and remote areas that need to be accessed” (draft EIR page 4.9-20).
- I202-3 The comment expresses an opinion about the standards set by the Ventura County Fire Apparatus Access Code, an existing regulation summarized in the draft EIR. The comment is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I202-4 The comment provides suggested edits to and opinions about policies proposed in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I202-5 The comment addresses the draft 2040 General Plan and is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I202-6 The comment notes a typographical error in Figure 11-6 on page 11-29 of the Background Report. As noted by the commenter, “Santa Felica” should be “Santa Felicia.” This error will be corrected on Figure 11-6 in the Background

Report. However, this misspelling is unrelated to the impact analysis and conclusions in the draft EIR.

I202-7

The comment references attachments to the main body of the letter. The County has reviewed the attachments and determined that they do not contain comment on the content or conclusions of the draft EIR, nor do they raise any significant environmental issues for which a response is required. All comment letters submitted to the County on the draft EIR are provided with complete attachments in Attachment 1 to this final EIR.

Date: February 27, 2020
 Re: Comment on VC 2040
 To: Susan Curtis & the Ventura County Planning Department,

Letter
I203

My comments focus on the Agriculture Element of the General Plan regarding issues that need to be discussed in Background Report under Existing Conditions or more thoroughly addressed in the draft EIR. I offer policy solutions to address each issue area, which should be included in the General Plan.

Given the state of climate change, the State’s mandate to climate action planning, and the fact that Ventura ranks the fastest warming county in the lower 48 states¹, policy for climate change mitigation and adaptation that outlines a supportive transition and requires action is essential.

I203-1

I also want to note that I have a deep respect for the farmers of Ventura County and work closely with many of the largest growers in Ventura County including Driscolls, Boskovich, and Deardorff. I understand the challenges they face every day regarding food safety standards, pest management, soil management, unpredictable markets, unpredictable and changing weather patterns, the cost of land, and labor management. Given that Ventura County is 57% agricultural land, I also acknowledge the unique potential we have to mitigate climate by adopting new practices and managing agriculture as part of a larger eco-system.

1. Pesticide and nutrient management:

Issues missing from report

- Annual pounds pesticide used in Ventura County
 - One study from 2009 shows pesticides and nutrients found above benchmark rates.²
- Amount and location of use of artificial nitrogen, which is a significant driver of agricultural greenhouse gas emissions in manufacture, transport and oxidizing of soil carbon³
 - The proposed greenhouse gas inventory shows no decrease in nitrogen use.
- Nutrient leaching into groundwater as well as storm water runoff into ocean
- Reliance on applicant to have considered alternative pest management strategies when applying to use regulated materials.
- Limited expertise to provide science-based guidance about the range of alternatives to application of synthetic pesticides and benefits of alternatives

I203-2

¹ Scott Wilson, *Fires, floods and free parking: California’s unending fight against climate change* (2019). <https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-california/>

² Salvatore S. Mangiafico, *Nutrients and Pesticides in Stormwater Runoff* (2009). (<https://journals.ashs.org/horttech/view/journals/horttech/19/2/article-p360.xml>)

³ Rushan Chai, *Greenhouse gas emissions from synthetic nitrogen* (2019). <https://cbmjournals.biomedcentral.com/articles/10.1186/s13021-019-0133-9>

- Some growers choose synthetic pesticides as first approach to pest management because they lack knowledge, expertise, curiosity, or motivation to question prevailing norms
- Some growers may rely on the advice of consultants who have a conflict of interest because they make their living selling pesticides
 - The University of California definition of Integrated Pest Management (IPM) needs to be the default policy in the General Plan that begins with preventive measures and biologically based approaches
 - IPM needs to be mainstream and discussed in the General Plan as the strategy to be used by all growers, not just for “alternative, sustainable” or “innovative” farmers. Pest management, with a specific focus on IPM, should be a separate goal in the Ag Element.
- Unknown cumulative effects of single pesticides used over time and multiple pesticides used simultaneously
 - Particularly with respect to the impact on farmworkers and neighboring receptors (residents, schools, hospitals, etc.)
- Decrease in biodiversity and resulting decline in ecosystem function
- Impacts of Roundup and other herbicides, which can have a material cost in orchards of +/- \$400 per acre not including labor.
 - Round impacts include killing plants and beneficial fungi that give soil tilth, particularly toxic to the beneficial bacteria that help plants grow; active ingredient glyphosate harms metabolic functioning in gut linings of all organisms
 - Limited awareness of how to design weeds out with mulch, cover crops, native plants that create plant communities that allow no space;
 - Limited awareness about studies, which prove carcinogenicity. Even when used according to label, many herbicides and pesticides are not safe to ecosystems, waterway, children, etc.
- Practices for building soil health, which is impacted by the use of all synthetic inputs, need to be outlined and assessed.
 - Healthy soil retains more water, is more effective in managing invasive pests and plants, and is less susceptible to erosion.
- Background Report does outline the reasons our county is susceptible to more agricultural pests and disease (Port Hueneme imports, proximity to urban LA, mild climate, diverse crops, etc)
 - This provides justification for a sharp assessment and action plan for preventive forms of pest management instead of a reactionary approach as problems arise.
 - Ex: Asian citrus psyllid (ACP) = threat to citrus; Glassy winged sharpshooter (GWSS); Invasive Shot Hole Borer, Polyphagous Shot Hole Borer; Fusarium wilt on celery and cilantro

I203-2
cont.

Solutions & Policy guidance

- The top two resources I recommend drawing from are here:
 - Roadmap for Integrated Pest Management https://www.cdpr.ca.gov/docs/pestmgmt/ipm_roadmap.pdf
 - Roadmap to an Organic California: Policy Report <https://www.ccof.org/roadmap-organic-california>

I203-3

- Run off should be limited by reducing the use of certain herbicides and pesticides and by preventing soil erosion and retaining onsite eroded sediments that could contain residual pesticide; increase rain water infiltration through building soil health
- IPM solutions; ban glyphosate and other toxic herbicides, toxic synthetic pesticides from public landscape management. There are many local governments which have already adopted such policy⁴
- County Agriculture Commissioner has a large role in supporting local agriculture practices and the County should invest in Ag Commission staff with relevant expertise
- As outlined in a report by UCLA Law⁵, the Ag Commissioner should:
 - Assure consideration of alternatives to synthetic pesticides
 - Collaborate with the CA Department of Pesticide Regulation to track, study and advise regarding cumulative effects. Please see report for more detail.
- Ventura County Agricultural Commission issues permits to pesticide applicators; they are responsible for pest detection, management, and prevention and should engage in documented discussion as part of their permit process about IPM
 - IPM offers a pest management system that prevents outbreaks, saves farmers money and builds ecological systems instead of degrading them. It primarily supports the Sustainability Goal #5. IPM is misplaced in the Niche and Specialty Agriculture Goal #3. The General Plan should be updated to reflect the relevance and feasibility of this management approach.
- The narrative that pesticides (used outside of an IPM strategy) are needed for food security within the County is unsubstantiated. Omit Policy AG 4.4 to frame all pest management policy under IPM.

I203-3
cont.

2. Ag land as a resource

Issues to consider

- The impacts of tillage and exposed soil are not addressed in this report. These aspects of our farming system in Ventura County create an environment susceptible to erosion, nutrient and water runoff, less water retention, less carbon sequestration potential
- Between 2004 and 2016, land designated as Prime Farmland decreased by 6,216 acres or 13.17 percent, according to the Background Report
 - Important Farmland declined by approximately 7.5 percent (p9-9)
 - Impacts of farmland conversion to the environment include less permeable land, less potential carbon sequestration, less potential ecosystem services
- The impact of local agricultural practices such as pesticide & NPK use, tilling, monoculture, and bare soil that lack cover crops, on the changing quality and condition over time of Important Farmland.
 - These factors all lead to the degradation of soil quality, water retention, biological ecosystems, and economic vitality of the agriculture sector

I203-4

⁴ Gosia Wozniacka, *Community-Led Efforts to Ban Glyphosate in Public Spaces Pick up Speed* (2019). <https://civileats.com/2019/12/17/community-led-efforts-to-ban-glyphosate-in-public-spaces-pick-up-speed/>

⁵ Tim Malloy, *Governance on the Ground*. <https://law.ucla.edu/centers/environmental-law/emmett-institute-on-climate-change-and-the-environment/publications/governance-on-the-ground/>

- Rates and causes of local erosion should be discussed.

Policy solutions

- Identify, develop and promote technical and financial support for building healthy soil.
- Collaborate with our local Cooperative Extension
- Funding is available for farmers through CDFAs Healthy Soils Program
<https://www.cdfa.ca.gov/oeffi/healthysouils/>

I203-4
cont.

3. Food Security

Issues to consider

- The lack of institutional or community attention to barriers to food security
- Supply chains are vulnerable to road damage from earthquakes, extreme weather events and floods.
- Exporting 60% of county production to foreign countries impacts their capacity to achieve food security. Exporting increases greenhouse gas emissions.
- Address the carbon footprint and quality as well as food security implications from 85% of food consumed in Ventura County being sourced outside the County.

Policy solutions

- Identify and remove barriers to marketing and increased consumption of local agriculture products; strengthen Policy AG-4.1 to localize food supply
- Adopt the Good Food Purchasing Program at the City level and include school districts in these efforts. <https://goodfoodpurchasing.org/>
- Require a growing measurable proportion of food purchased by county hospital, jail and cafeteria be from local sources
- Encourage and recognize school districts and businesses that steadily increase procurement of products grown in the county
- Assure that buy-local policy includes all agriculture products, not just fresh produce

I203-5

4. Water

Issues to consider

- Background Report does not discuss surface water and ground water quality or contamination baseline data or impacts on ecosystems, humans and agriculture
 - This report should include existing levels of sediment, agricultural inputs including nutrients and pesticides, and other pollutants from other industries such as chloride and other salts.
- Report acknowledges that drought reduced crop values in the 2013-2014, which was the 2nd lowest rainfall since 1930
 - Specific farm and soil management practices can improve soil health and water retention
- Ag water sources in 2013: Only 4.2% was recycled water, according to the Background Report
- Report outlines how many gallons of water are used to grow 1 pound food of various crops, but does not include how much of our water is exported to other countries in agriculture products

I203-6

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <ul style="list-style-type: none"> ● Ag water sources: Surface water 8.8% <ul style="list-style-type: none"> ○ Diverting surface water causes ecosystem damage and reduces river flow ● This report lacks an assessment of and commentary on over-fertilization and excess irrigation. UCCE should be consulted for relevant studies such as excess nitrogen in strawberries by local advisor Andre S. Biscaro. ● It should be noted if and when there is a lack of available data from UCCE, CDFA, and other resource agencies in order to help shape their research agenda priorities. <p><i>Policy solutions</i></p> <ul style="list-style-type: none"> ● Increase water efficiency and retention through building healthy soil, which means encouraging cover crops, low or no till, crop rotation and reducing inputs. ● Establish measurable and enforceable goals for water conservation and use of recycled water for all sectors ● Increase infrastructure and ability to use more recycled water throughout the County. ● Support growers with financial and technical resources to adopt practices that retain more water | <p>I203-6 cont.</p> |
| <p><u>5. Regulatory setting</u></p> <ul style="list-style-type: none"> ● There are 7 Area plans in our county, which are listed in the Background Report and contain goals and policies related to agricultural resources. <ul style="list-style-type: none"> ○ These Area Plans should consider environmental impact review and hyper localized mitigations for the affected area. ● According to the Background Report: <ul style="list-style-type: none"> ○ The Farmland Protection Policy Act is a federal law to minimize loss of prime agricultural land. ○ The Farmland Mapping and Monitoring Program requires counties to report land converted to or from agricultural land every two years <ul style="list-style-type: none"> ▪ We should be tracking and monitoring the causes and outcomes of loss that occurs in Ventura County. ▪ The causes should be addressed thoroughly in the Land Use Element. ▪ The climate impacts of this loss should be better understood, discussed and mitigated. | <p>I203-7</p> |
| <p><u>6. General comments & recommendations</u></p> <ul style="list-style-type: none"> ● The Background Report and draft EIR lack a discussion of how to build healthy soils and their important role in climate change mitigation, as well as water supply, reducing drought, and reducing flooding. The benefits to farmers and local ecosystems and biodiversity are also essential factors to highlight. ● The Background Report outlines that buying local commodities has gained traction in recent years due to climate change concerns and its potential effects on crop production. <ul style="list-style-type: none"> ○ Therefore, the structure of our local markets and supply chains must be included in this discussion. ○ Mitigations should center on building out our regional supply chain infrastructure to increase local sales (only 15% of our local production is currently consumed within County) | <p>I203-8</p> |

- Food security and long-term economic stability are weakened by long-distance exports. Regional export of agricultural products also reduces local consumption and misses the opportunity for local economic development I203-8
cont.
- Greenhouse gas emissions inventory does not cover emissions associated with exports and imports I203-9
- Section 9.2 Agricultural Production; Existing Conditions discusses weather patterns such as average temperature and moisture I203-10
 - This section lacks a discussion of climatic changes over time. Ventura is fastest warming county in lower 48 states⁶. The unpredictable changes occurring at a faster rate than even before will require agile adaptation and mitigation of further climate change specifically through preventative pest management and practices that retain water.
- All figures and tables should be current: Table 9-8 Top 10 Commodity Sales and subsequent tables are 2015 data. 2018 data is available.

Summary of Recommendations

- IPM is about prevention instead of treating the symptoms and should be the most predominate pest management strategy in our County.
- Create infrastructure for consideration of alternatives and cumulative effects of pesticides.
- Adopt programs and policies for building soil health
- Consider all barriers to food security
- Assess water quality as indicator of all land management practices
- Assess energy and water embodied in exports
- Reference the resources included in this policy recommendation letter, specifically regarding a roadmap moving forward towards IPM and organic. I203-11

If we do not consider all of these factors, which contribute to and exacerbate climate change, then the factors that are considered and outlined in the Existing Conditions section will soon be obsolete.

Thank you for you consideration. Please feel free to reach out with questions or for further discussion.

Submitted by
 Tessa Salzman
 M.S. Agriculture, Food & Environment Policy
 M.A. Urban & Environmental Policy & Planning
 707-845-5846
 tessajsalzman@gmail.com
 Ventura, CA 93001

⁶ Scott Wilson, *Fires, floods and free parking: California's unending fight against climate change* (2019).

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|------------------------|-------------------------------------------|
| Letter I203 | Tessa Salzman February 27, 2020 |
|------------------------|-------------------------------------------|

- I203-1 The comment provides introductory language outlining concerns that are responded to below; see responses to comments I203-2 through I203-10. This comment does not raise a significant environmental issue for which a response is required.
- I203-2 The comment summarizes issues related to existing pesticide and nutrient management that are not included in the Background Report. The effects of these existing practices are appropriately excluded from the draft EIR because the 2040 General Plan would not increase agricultural land use, expand the use of pesticides, or promote agricultural practices that reduce soil health. The data characterizing existing conditions in the County provides a reasonable representation of conditions to inform an analysis of potential effects in the draft EIR. Note that the 2040 General Plan includes Policies AG-3.2 and AG-3.3, which encourage and support the use of Integrated Pest Management practices and provide information on how to do so. Similarly, Policy AG-5.1 encourages the use of inorganic, nitrogen-based fertilizers to reduce nitrogen emissions.
- I203-3 The comment suggests additional topics related to solutions and policies for pesticide and nutrient management that could be considered in the 2040 General Plan and suggests omission of Policy AG-4.4. This comment is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I203-4 The comment outlines additional concerns about current agricultural processes. As described above, the environmental effects of existing agricultural operations that would not be affected by implementation of the 2040 General Plan are correctly omitted from the evaluation of impacts in the draft EIR. The draft EIR evaluates the potential for conversion of farmland as a result of the 2040 General Plan in Section 4.2, "Agriculture and Forestry Resources." The effects (e.g., increased impermeability, loss of carbon sequestration potential, effect on natural ecosystems) that could result from the identified potential for conversion is evaluated throughout the draft EIR.
- The policy suggestions are not related to the environmental impacts identified in the draft EIR. Therefore, no further evaluation is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I203-5 The comment suggests additional topics and policy solutions related to food security that could be considered in the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

I203-6 The comment provides a listing of issues related to agriculture and water use that for consideration, some of which are derived from the Background Report and some that are supplemental, and provides suggestions that could support water efficiency in the agricultural sector. Water quality and sources of contamination are described in Chapter 10, “Water Resources,” of the Background Report. The comment highlights existing conditions and agricultural practices where the commenter identifies an area of concern, but is not related to potential environmental impacts associated with implementation of the 2040 General Plan or the analysis and conclusions in the draft EIR.

Note that the 2040 General Plan includes policies to encourage sustainable and regenerative farming (such as Policy AG-5.1, which encourages reduced use of nitrogen-based fertilizers, and Policy AG-5.4, which encourages water-saving irrigation techniques), as well as three policies (WR-6.1 through WR-6.3) intended to sustain the agricultural sector by ensuring and adequate water supply through water efficiency and conservation. These policies are evaluated in the draft EIR.

I203-7 The comment suggests that the Area Plans should include mitigation to address agricultural concerns, but does not provide specific information about what this mitigation would be or how such mitigating policies would address impacts identified in the draft EIR. The comment also suggests that the County should develop a program that builds on the data required by the Farmland Mapping and Mitigation Program to track and monitor the causes and outcomes of loss of agricultural land so that these causes can be addressed through the Land Use Element. The comment also suggests that evaluation of any effect on climate caused by the conversion of agriculture should be evaluated. Note that the Area Plans are part of the 2040 General Plan evaluated in the draft EIR. Refer to Master Response MR-2 for additional discussion of how the Area Plans were included in the development of the 2040 General Plan.

Section 4.2, “Agriculture and Forestry Resources,” in the draft EIR concludes that potential loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance as a result of future development under the 2040 General Plan would be significant. The conversion is unavoidable despite the addition of feasible mitigation, including a new policy that the County shall ensure that discretionary development located on land identified as Important Farmland on the State’s Important Farmland Inventory is conditioned to avoid direct loss of Important Farmland as much as feasibly possible (Mitigation Measure AG-1) and an Implementation Program that would require the establishment of conservation easements as compensatory mitigation (Mitigation Measure AG-2). The applicability of the commenter’s suggestion to track and address the causes of loss of farmland through the Land Use Element is acknowledged. However, because it is not clear what changes would be made in the Land Use Element and how these changes would address the conversion of farmland in a manner not already provided in the 2040 General Plan or mitigation measures in the draft EIR, the suggestion cannot be considered further. No revisions to the draft EIR have been made in response to this comment.

- I203-8 The comment summarizes why the Background Report and draft EIR should include discussion of local markets and supply chains. However, EIRs are not required to treat a project's economic or social effects as significant effects on the environment (CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR. Refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I203-9 See Master Response MR-1 for detailed information pertaining to the development of the GHG inventory prepared for the 2040 General Plan and draft EIR.
- I203-10 This comment suggests inclusions of climatic changes over time in the discussion of agricultural production and an update to data provided about agricultural sales by commodity in Table 9-8 of the Background Report. This information is immaterial to the analysis and conclusions in the draft EIR regarding the potential environmental effects of implementing the 2040 General Plan. No changes to the draft EIR have been made in response to this comment. Refer also to Master Response MR-6 regarding Background Report content.
- I203-11 The comment summarizes more detailed comments provided above; see responses to comment I203-2 through I203-10. This comment is a concluding statement and does not raise a significant environmental issue for which a response is required.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Tuesday, February 25, 2020 8:38 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
I204**

You have a NEW Comment

Name:
Thomas L Erickson
Contact Information:
tomatbob@yahoo.com

Comment On:
proposals

Your Comment:

Please ensure that all flaring and venting in all new oil wells is prohibited, except in cases of emergency or testing purposes. Thank you.

I I204-1

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| Letter I204 | Thomas L Erickson February 25, 2020 |
|------------------------|-----------------------------------------------|

I204-1 Refer to Master Response MR-4, Section MR-4.F Flaring, regarding the findings and conclusions related to flaring in oil and gas operations.

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Sunday, February 23, 2020 4:53 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

**Letter
I205**

You have a NEW Comment

Name:

Thomas McCormick

Contact Information:

tom3ojai@gmail.com

Comment On:

Appendix B. Climate Change

Your Comment:

NASA, working with the California Air Resources Board using InfraRed sensing while flying over California have determined that a third of California methane emissions can be traced to super emitters in the oil industry. In Ventura County, NASA has identified five methane super emitters at oil facilities. The General Plan must include regulation to eliminate methane emissions.

I205-1

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|------------------------|----------------------------------------------|
| Letter I205 | Thomas McCormick February 23, 2020 |
|------------------------|----------------------------------------------|

I205-1

The comment refers to the National Aeronautics and Space Administration and methane “super-emitters,” and states that the 2040 General Plan must include regulations to eliminate methane emissions. Refer to Master Response MR-1 for detailed information pertaining to the development of the greenhouse gas inventory prepared for the 2040 General Plan and draft EIR.



TIMOTHY F. MALLOY
PROFESSOR OF LAW

Letter
1206

SCHOOL OF LAW
BOX 951476
LOS ANGELES, CALIFORNIA 90095-1476
Phone: (310) 794-5278
Email: Malloy@law.ucla.edu

February 27, 2020

Susan Curtis, Manager, General Plan Update Section
Ventura County Resource Management Agency,
Planning Division
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Re: Comments Regarding Draft General Plan EIR

Dear Ms. Curtis:

I am writing to provide comments on the Draft General Plan EIR. The Background Report and the Draft EIR do not adequately address the impact of pesticide use in the agricultural sector. In its discussion of Environmental Impacts and Mitigation Measures, the Draft EIR identifies impacts associated with the use of pesticides as a concern. It describes the role of the County Agricultural Commissioner's office in evaluating the use of restricted materials but does discuss the efficacy of the program beyond reference to the 2018 report of the Ventura County Grand Jury.¹ That Grand Jury report focused primarily on implementation of monitoring requirements, concluding that "the monitoring of fumigants like 1,3-D, methyl bromide and chloropicrin utilized in County agriculture demonstrates that levels of drift are below cumulative harmful levels."² The Draft EIR then concludes that pesticide exposure would not be addressed further.³ The draft Background Report likewise describes the restricted permitting process but does not evaluate its effectiveness.⁴

The Grand Jury report did not address the efficacy of the restricted materials permitting program. Two recent reports by researchers at UCLA evaluated the restricted materials permitting system. Those reports concluded the restricted permitting system throughout California, including in Ventura County, does not comply with two regulatory requirements established to implement the substantive requirements of CEQA. First, in approving the application of restricted materials, county officials fail to ensure the performance of meaningful alternatives analysis (AA), meaning systematic evaluation of safer alternatives such as more benign pesticides or cultural practices.⁵ Second, in assessing the impacts of restricted materials, county officials do not perform cumulative impacts assessment (CIA), defined as consideration of the additive or

1206-1

¹ Draft Environmental Impact Report: Ventura County 2040 General Plan (January 2020) at 4.2-5 to 4.2-6.

² Ventura County Grand Jury, Final Report: Pesticide Monitoring Near Schools and Day-Care Centers (April 25, 2019) at 5.

³ Draft Environmental Impact Report: Ventura County 2040 General Plan (January 2020) at 4.2-5 to 4.2-6.

⁴ Ventura County 2040 General Plan Update Background Report (January 2020) at 9-39.

⁵ Timothy Malloy, *et al.*, *Governance on the Ground: Evaluating Pesticide Regulation in California* (2019).

Comments of Timothy Malloy
February 27, 2020
Page 2

synergistic effects of exposing workers, bystanders and environmental receptors to multiple pesticides.⁶

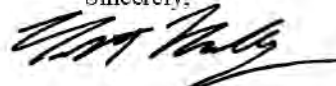
The research focused on mixtures of three restricted materials — chloropicrin, Telone and metam salts — that are frequently used on high-value crops such as strawberries, tomatoes, tree nuts and stone fruits. The UCLA report demonstrated that their combined adverse effects can be greater because the materials may interact to increase damage to cells and can reduce the body's ability to remove or neutralize toxic substances. Using data from the Pesticide Research Institute, which collaborated with UCLA, the research examined the area near Rio Mesa High School in Ventura County from July 26 to August 3, 2013. The air modeling showed contemporaneous exposure to multiple pesticides at locations such as schools, day care centers and parks.⁷ The Ventura County Grand Jury report did not address the impact of cumulative exposure to mixtures of pesticides. Copies of the UCLA reports can be found at <https://law.ucla.edu/centers/environmental-law/emmett-institute-on-climate-change-and-the-environment/publications/governance-on-the-ground/> and <https://law.ucla.edu/centers/environmental-law/emmett-institute-on-climate-change-and-the-environment/publications/exposure-and-interaction/>

I206-1
cont.

Given these identified deficiencies in the restricted materials permitting system, pesticide exposure should not have been excluded from further analysis in the Draft EIR. The EIR should examine how the existing deficiencies impact pesticide exposures and consider implementation of measures to mitigate these problems in the goals of the General Plan.

Thank you for your consideration. If you have any questions, please do not hesitate to contact me via e-mail at malloy@law.ucla.edu. (Please note that the comments represent my views only. Use of the UCLA letterhead is for identification purposes only.)

I206-2

Sincerely,

Timothy F. Malloy

⁶ Timothy Malloy, et al., *Governance on the Ground: Evaluating Pesticide Regulation in California* (2019); Virginia Zaunbrecher, et al., *Exposure and Interaction: The Potential Health Impacts of Using Multiple Pesticides* (2016).

⁷ Virginia Zaunbrecher, et al., *Exposure and Interaction: The Potential Health Impacts of Using Multiple Pesticides* (2016).

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|------------------------|-----------------------------------------------|
| Letter I206 | Timothy F. Malloy February 27, 2020 |
|------------------------|-----------------------------------------------|

- I206-1 The comment states that the Background Report and draft EIR do not adequately address the existing impacts of pesticide use in the agricultural sector; refer to Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR. The comment addresses the draft 2040 General Plan, a report produced by the Ventura County Grand Jury, and the efficacy of the restricted materials permitting program and is not related to the adequacy of the draft EIR. The draft EIR includes a discussion of the several ways in which the existing use and regulation of pesticides is addressed by the County (pages 4.2-5 and 4.2-6). The draft EIR correctly omits analysis of the impacts of pesticide and herbicide because such uses are not reasonably foreseeable future activities resulting from 2040 General Plan implementation. In addition, an EIR is not required to mitigate existing environmental problems. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.
- I206-2 The comment provides the preferred contact for the individual. The County has noted the information appropriately for future reference.

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1207 20 090

Letter
I207

Timothy Shaw McGrath
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I207-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I207-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I207-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I207-4

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I207-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I207-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I207-7

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I207-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I207-9

Sincerely,



Timothy Shaw McGrath

| | |
|------------------------|--------------------------------------------------|
| Letter I207 | Timothy Shaw McGrath February 24, 2020 |
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This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I207-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I207-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I207-3 Refer to response to comment I4-3 regarding water availability and cost.
- I207-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I207-5 Refer to response to comment I4-5 regarding the commenter’s request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I207-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I207-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I207-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I207-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.



Letter
I208

FEB 27 20 41 16 57

Tina Rasnow (805) 236-0266

February 26, 2020

Ventura County Board of Supervisors
Hall of Administration
800 South Victoria Ave.
Ventura, CA 93009

Re: General Plan Amendment Environmental Impact Report

Dear Honorable Members of the Board of Supervisors:

We are heartened to see more comprehensive environmental protection measures included the General Plan objectives, as outlined in the Environmental Impact Report, but disappointed that so much focus is still placed on aesthetics as opposed to true health and safety concerns. We also feel that the General Plan Amendment falls short of tackling the full extent of the climate crisis and its likely impact on Ventura County. The new General Plan should provide a blueprint to guide us into the future, but in elevating aesthetics to equal standing with true health and safety issues, it fails as a roadmap to navigate the growing environmental and social challenges of the future.

1. For example, when it comes to telecommunications towers, the emphasis on disguising or hiding them, including protecting the view of the ridgelines, does a great disservice to community health, because cell towers are safest when located away from people. Ridgelines that provide excellent coverage, but are not located near schools, businesses or homes are an ideal location for telecommunications towers, far safer than flagpoles, church steeples, and strip mall facades. This is particularly true as the cell phone carriers migrate to 5G which emits far more EMF and RF than the earlier versions of transmission.

I208-1

2. While maintaining open space is important, the SOAR initiative allows those with existing homes to veto new development, particularly low income and affordable housing, which is desperately needed to provide shelter for our service worker sector. If lower wage earners cannot afford to live near where they work, the commute required increases congestion and air pollution, deteriorating the quality of life for the whole community.

3. Given that the General Plan is projected to take us to 2040, and the existential threat the climate crises poses, we think far more needs to be done to cease fossil fuel extraction and transition to 100% renewables in the short term. We need to have a comprehensive public transit system based on renewable energy, methods for harvesting rain water so

I208-2

1000 South Ventu Park Road, Newbury Park, California 91320
(805) 405-1472 www.rasnowpeak.com

Honorable Board of Supervisors
February 26, 2020
Page Two

less storm water runoff goes to the sea, and planning on what portions of our coast line we may have to abandon to sea level rise.

4. The book, *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*, edited by Paul Hawken (Penguin Books, 2017), compiles the results of research from hundreds of the world's top scientists and climate experts, and identifies specific actions that governments and local communities can take to reverse global warming. Our General Plan should incorporate those drawdown solutions that can be undertaken on a local level, many of which are surprisingly simple. For example, reduced food waste and encouraging people to adopt a more plant-rich diet can have a profound effect on reducing green house gasses. So can good family planning clinics and incentives to reduce procreation rates. A most effective and inexpensive drawdown action would be to implement regenerative agricultural methods here in Ventura County. By transitioning away from chemical fertilizer and pesticide use, no-till land management, and building soil with organic material, including biochar, we can sequester carbon in the soil while building its quality and productivity, eliminating contamination of ground and surface water, and improving air quality.

5. We do not have to invent solutions to address the current and growing environmental and social challenges. Other forward thinking regions are tackling these challenges and can provide us with a template that can be tailored to our own local conditions. For example, on Salt Spring Island in British Columbia, the community is faced with a housing crisis similar to our own in Ventura County. Strict development restrictions and limited residential units have priced housing beyond the reach of many residents. Meror Krayenhoff, a global consultant on rammed earth building methods and featured on *The Nature of Things* with David Suzuki, suggested that a compliance driven, as opposed to vision driven, policy paradigm can result in anarchic, subversive response when the populace thumbs their noses at regulations that don't represent the will and needs of the population. He proposes a number of innovative solutions, including encouraging the use of local, renewable materials in building. Ventura County, with access to rock, sand, straw bales and other renewables, can become a beacon for permitted home building solutions for the rest of California, and the nation. Green projects could get reduced permitting fees and priority in the permit queue, with a single point advisor. For example, composting toilets should not only be permitted, but encouraged, as it is wasteful in the extreme to use precious potable water to flush away human waste.

I208-2
cont.

6. We suggest Ventura County consider concepts implemented elsewhere, such as Seattle granting a 25-30% increase in allowable floor area and increased height limits for Living Building Challenge ("LBC") projects (See <https://living-future.org/lbc/>); or New Zealand's SIREWALL community center project, which made approval contingent upon demonstrating reconciliation with Maoris, training opportunities for youth, a high environmental standard that the community (of all ages) supported, that it would elevate the well-being of the community, and encourage responsible tourism. (See https://www.nzherald.co.nz/northern-advocate/news/article.cfm?c_id=1503450&objectid=12076863)

7. Ventura County can embrace LBC requirements that buildings be net positive in terms of water, energy, sewage and liquid waste, and contain no red-listed toxic materials, express beauty in terms of spirit, inspiration, and education, create health and happiness through such things as biophilia, among other inspiring attributes.

Honorable Board of Supervisors
 February 26, 2020
 Page Three

8. While the General Plan is intended to cover the length of a generation, it would not be at all unsound to at least contemplate the next seven generations, consistent with indigenous cultural tradition. Measuring progress with such a long term view will require a different framework than juggling one climate or housing emergency after another. Priorities and decision-making can be measured in a rational and holistic manner, with careful thought for the generations yet to come.

I208-2
 cont.

9. The General Plan should explicitly reflect the County’s Climate Action Plan and its evolution. Achieving net zero CO2 emissions (and sequestration) will require a rapid ending to oil and natural gas extraction (and certainly no expansion, no granting new leases, new pipeline permits, etc. It should encourage green energy generation and storage in both distributed and centralized manners.

10. Wildfires are clearly changing in their severity and nature. The County should lead in research and experimentation with methods of fire protection and damage mitigation, such as (un)controlled small burns, and unconventional methods advocated by <http://californiachaparral.com> -- including ember barriers and sprinklers, which are more effective and ecologically sound than enormous denuded hillsides.

I208-3

11. Our General Plan needs to steer our county toward good land and resource stewardship. To recap, aesthetics play far too important a role in our land use planning, particularly because “beauty is in the eye of the beholder,” and what one person sees as creative genius, another sees as a monstrosity. Land use regulations should be focused on environmental safeguards that protect air, water, and soil while at the same time meeting the food and shelter needs of our communities.

I208-4

12. As Meror Krayenhoff has stated, “We are in a time when the scale of the emergencies we face need to be addressed with solutions of a corresponding scale. These emergencies also have urgency. . . . [W]ithout governance that can act with pace, boldness, courage and the power to implement, we are wasting our time.” We hope that Ventura County acts with such pace and boldness to adopt a General Plan that guides us in a new direction of carbon drawdown, while promoting innovation in design, building, and conservation for generations to come.

Thank you for your kind consideration.

Sincerely,



Tina Rasnow and Dr. Brian Rasnow on behalf of the Rasnow Family

| | |
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| Letter I208 | Tina Rasnow and Dr. Brian Rasnow February 26, 2020 |
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- I208-1 The comment addresses the draft 2040 General Plan’s treatment of aesthetics relative to health and safety, and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- I208-2 The comment provides recommendations for climate change policies that could be included in the 2040 General Plan and is not related to the adequacy of the draft EIR. Note that the Climate Action Plan is embedded in the 2040 General Plan. Refer to Master Response MR-1 for discussion of the draft EIR’s detailed quantitative and qualitative analysis of the 118 policies and 45 implementation programs included in the 2040 General Plan to reduce greenhouse gas (GHG) emissions in the county and the seven feasible mitigation measures included in the draft EIR to address the potentially significant GHG impacts of the 2040 General Plan and achieve additional GHG emissions reductions. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- I208-3 The comment states that the “County should lead in research and experimentation” related to wildfire protection and damage mitigation. The comment is not related to the adequacy of the draft EIR. Therefore, no response is required. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

- I208-4 The comment summarizes the contents of the comment letter. This comment is a concluding statement and does not raise a significant environmental issue for which a response is required.

From: Tom Erickson <tomatbob@yahoo.com>
Sent: Saturday, February 22, 2020 4:29 PM
To: General Plan Update
Subject: Decisively addressing the climate crisis

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| Letter I209 |
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Greetings. As a long-time Ventura County resident, I wanted to be sure to let you know how worried I am about the climate crisis. The news is so bleak, and decisions made for our general plan are going to be crucial for our lives. Please do everything you can to phase out oil and gas production and consumption as soon as possible, and accelerate the cleanup of toxic sites. The time for dithering on this is way past!
 Thank you, Tom Erickson

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I209
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| Letter I209 | Tom Erickson February 22, 2020 |
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I209-1 Refer to Master Response MR-4, Section MR-4.J, “Potential to Stop Issuing Permits for New Wells (Phase Out Oil and Gas Operations)”, regarding the findings and conclusions related to phasing out oil and gas operations. The remainder of the comment addresses implementation of the 2040 General Plan and is not related to the adequacy of the draft EIR. However, this comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

**Letter
I210**

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

I210-1

I210-2

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| <p>While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.</p> | <p>I210-2 cont.</p> |
| <p>The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.</p> | |
| <p>Damaging misstatements about our property also appear In the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.</p> | <p>I210-3</p> |
| <p>I would also like to raise some additional concerns:</p> | |
| <p>1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.</p> | <p>I210-4</p> |
| <p>2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government’s housing policies.</p> | <p>I210-5</p> |
| <p>3. The EIR does not adequately address the enormous “indirect impacts” that will occur as a result of implementing the General Plan, calling them “less than significant.”</p> | <p>I210-6</p> |
| <p>4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.</p> | <p>I210-7</p> |
| <p>5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.</p> | <p>I210-8</p> |
| <p>The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.</p> | <p>I210-9</p> |
| <p>Sincerely,</p> | |

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| Letter I210 | Toril Raymond February 27, 2020 |
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This comment letter repeats many of the same comments provided in Letter I9. The responses below provide cross references to the portions of Letter I9 where responses to the same comments have already been provided.

- I210-1 Refer to response to comment I9-2 regarding the history of the McLoughlin family and their land in Ventura County.
- I210-2 Refer to response to comment I9-3 regarding statements in the Coastal Area Plan.
- I210-3 Refer to response to comment I9-4 regarding the adequacy of the draft EIR.
- I210-4 Refer to response to comment I9-5 regarding analysis of social and economic issues in the draft EIR.
- I210-5 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I210-6 Refer to response to comment I9-7 regarding the adequacy of the draft EIR.
- I210-7 Refer to response to comment I9-8 regarding analysis of social and economic issues in the draft EIR.
- I210-8 Refer to response to comment I9-9 regarding water supply.
- I210-9 Refer to response to comment I9-10 regarding the adequacy of the draft EIR.

Letter
I211

The County did not conduct a complete analysis of impacts in regard to conversion of farmland.

The EIR erroneously and without supporting evidence states "the General Plan would not result in any other changes that due to location and nature would result in conversion of farmland."

This statement is simply not true and the EIR itself contradicts this statement.

The EIR acknowledges the impacts of both economic burdens and decrease in water supply for irrigation (page 4.2-3). As water supplies decrease and costs to obtain that water increase, land will be removed from agricultural use. This is a direct significant impact that will convert ag land.

Actual issues impacting agriculture in Ventura County that contribute to the conversion of ag land are:

- 1) water
- 2) economics (extremely expensive area to do ag)
- 3) lack of farmworker supply and housing
- 4) increased regulatory burden from increasing compatibility issues from urban/ag interface.

County analyzed NONE of these issues. And proposed no mitigation to address any of these issues.

The EIR needs to be corrected and recirculated.

I211-1

I211-2

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| Letter I211 | Toril Raymond No date |
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I211-1 The commenter states that decreased water supplies and increased costs are a significant impact that would convert agricultural land use. Refer to response to comments I2-4 and I4-3 regarding water availability and cost.

The commenter asserts that economics contribute to the conversion of agricultural land non-agricultural use. However, EIRs are not required to treat a project’s economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The economic issues raised in this comment would not result in any adverse physical changes to the environment not already addressed in the draft EIR.

Lack of farmworker supply and housing are also referenced as an issue that contributes to the conversion of agricultural land use to non-agricultural. CEQA Guidelines Section 15126.2(a) explains that “[a]n EIR shall identify and focus on the significant effects of the proposed project on the environment.” Therefore, only the impacts of agricultural changes caused by adoption of the 2040 General Plan need to be addressed in the EIR. Lack of farmworker supply and housing are not an environmental impact related to agriculture changes caused by the implementation of the 2040 General Plan EIR and no further response is required to address this issue.

Lastly, the commenter cites an “increased regulatory burden from increasing compatibility issues from urban/ag interface” as an issue that contributes to the conversion of agricultural land non-agricultural use. Refer to response to comment A13-9 regarding impacts related to urban-agriculture interface and response to comment O32-15 regarding competition for water, the cost of agriculture in the county, lack of farmworker housing, and regulatory burdens.

I211-2 Refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Jack Breuker <jack.vcei@gmail.com>
Sent: Thursday, February 27, 2020 8:46 PM
To: General Plan Update
Subject: Forwarding General Plan Feedback

Letter
I212

Follow Up Flag: Follow up
Flag Status: Flagged

A friend of mine sent the following comments but the email bounced back. I am re-sending it on his behalf. Commenters name is "Walt Beil". His email is docdoggr@gmail.com. Please respond to him.

27 February 2020

Ventura County Resource Management Agency
 800 S. Victoria Ave
 Ventura, CA 93009

To whom it may concern:

My name is Walt. I have worked in the local oil and gas industry for many years. I am writing because many local oil and gas employees have expressed deep concern about the overall direction that the 2040 General Plan Update appears to be taking. I have reviewed the Draft Environmental Impact Report (DEIR) document and believe it unfairly targets the industry with the goal of shutting down local oil and gas production completely.

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I212-1
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The DEIR recognizes the importance of the oil and gas industry when it states, "The County shall promote the extraction of mineral resources locally to minimize economic costs and environmental effects associated with transporting these resources." With this in mind, it is troubling that the DEIR then proposes several new policies that would further restrict local production, therefore jeopardizing the livelihoods of hundreds of workers in our industry.

Policy COS-7.8, for example, essentially prohibits oil and gas producers from flaring except in emergency cases. Flaring is an industrywide practice that operators use to burn off excess natural gas that cannot be captured or used in other ways. It is used as a safety practice used to safeguard workers on site and preserve local air quality. It is the most environmentally friendly alternative to releasing excess natural gas into the atmosphere or back into the ground. The alternatives do not adequately explain the impacts of restricting flaring.

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I212-2
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The DEIR acknowledges that the policies included in the General Plan Update would result in the construction and operation of new pipelines (Page 4.8-38). The DEIR does not go far enough to show that construction and operation of new pipelines for the conveyance of oil, gas and produced water is feasible and will result in GHG emissions reductions. In addition, the policies promoting new pipelines are contradictory to proposed policies related to fault lines.

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I212-3
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The General Plan is critical to the county's future success. API Coastal Chapter firmly believes that it should be used to strike a balance between economic vitality and environmental protection, not unfairly regulate the oil and gas industry out of the county.

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I212-4
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With regards,
 Walt Beil
 Ventura

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| Letter I212 | Walt Beil February 27, 2020 |
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- I212-1 The comment expresses concern related to oil and gas industry restrictions and subsequent effects to those employed by the industry. This comment is introductory in nature and does not raise a significant environmental issue for which a response is required.
- I212-2 Refer to Master Response MR-4, Section MR-4.F Flaring, regarding the findings and conclusions related to flaring in oil and gas operations.
- I212-3 Refer to Master Response MR-4, Section MR-4.G Pipeline Requirements, regarding the findings and conclusions related to the conveyance of oil and produced water from oil and gas operations.
- I212-4 The comment summarizes API Coastal Chapter's beliefs regarding the oil and gas industry as it relates to the 2040 General Plan. This comment is a concluding statement and does not raise a significant environmental issue for which a response is required.

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| <p>Letter I213</p> |
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Dear County Supervisors and members of the Planning Commission:

I am deeply concerned about our future if we do not take significant action to curb green house gas emissions. Fossil fuel use is driving climate change. The impacts associated with climate change include droughts, fires, forced migration of animal and humans (which is one of the treats to national security), sea level rise, spread of disease and threats to biodiversity, to name a few. Also fossil fuels threaten the ocean ecosystem (because of acidification), reduce air quality, pose threats to our water supplies, are a fire threat (note recent refinery fires), and threaten economic stability because of volatile fossil fuel markets. Current levels of CO2 are at historic highs yet we still put more into the atmosphere. The scary thought to me is that it takes decades for nature to take CO2 out of the atmosphere. Estimates range from 30 – 90 years (Ref: *Archer, David (2009). "Atmospheric lifetime of fossil fuel carbon dioxide". Annual Review of Earth and Planetary Sciences. 37. pp. 117–34*). Other literature cites ranges from 20 – 200 years. So even if we stop all GHG emissions today, the earth will still be coasting to a warmer climate for decades.

Oil Production

I am concerned that Ventura has oil operations that I feel pose a risk. Some financial advisors are advising investment firms to be wary of fossil fuel investments. As renewable and green energy become increasingly less costly than fossil fuels and the projected displacement of petrol fueled cars by EVs, the market for fossil fuels will drop dramatically in the 2020s causing many oil operations to drop out of the market, leaving stranded assets. (Ref: See works by authors Ross Tessian and Tony Seba. Blackrock Investments.) So, not only could oil operations in Ventura become uneconomical, there is a risk to Ventura that cleanup of abandoned operations will be dropped on Ventura's doorstep.

Oil production threatens the health of residents located close oil operations. Benzene, toluene, and hydrogen sulfide, among others, pose health risks, especially to children. To many in the community this is an environmental justice issue. Wells must be properly shutdown to insure safe environment for the community.

I213-1

I recommend phasing out oil operations in the county as soon as possible and cleaning up the operation sites before they become a County financial liability.

Transportation

Technology will disrupt transportation in the 2020s. Many transportation experts are predicting economics will price petrol-fueled vehicles out of the market mid 2020s. Why, because EV's will be cheaper to produce, cheaper per mile to drive and much cheaper to maintain. (They have typically about 18 moving parts compared to 1,000+ moving parts for a petrol car.) Also, battery improvements will lead to cheaper, longer range, faster charging and longer lasting batteries. Already there are many Teslas that have more than 250,000 miles on their batteries and Tesla estimates that their new batteries will last to about 1 million miles). Note that electric vehicles don't use much, if any, oil for lubrication. This will lessen the roadway oil runoff and its associated impacts. And EVs are quieter.

Autonomous electric vehicles will start to come online in the 2020s. This will start a dramatic change in the transportation model. Ride hailing of autonomous vehicles will become the norm. In the future, most people will not own cars – It will be cheaper to just hail a ride with your smartphone. Just tell your phone where you want to go and when, and the ride hailing service will send an autonomous vehicle to pick you up. I envision most future urban transportation will be done this way. (Ref Three Revolutions: Steering Automated, Shared and Electric Vehicles to a Better Future by Daniel Sperling, 2018).

This revolution will mean less land is needed for parking and many parking lots may be repurposed. Transportation over long distances could be done with rail lines and the last miles be done with hailed autonomous vehicles. Rail lines could be built in the medians of many of the existing highways. One specific project could be a light rail connecting CSUCI to the 101 Freeway (Camarillo MetroLink Station). Autonomous trains could provide continuous and on demand service to greatly increase travel convenience. This could be modeled after airport transportation light rails, such as at Hartsfield Airport in Atlanta. (An aside, rail service should be used where possible in place of vehicles with rubber tires to reduce hazardous air particulates). Because of the coming changes, the County should carefully look at the wisdom of investing in road expansions with the possibility that fewer cars will be on the roads in the future.

Also note that the authors Ross Tessian and Tony Seba, to name a few, predict that these changes to will occur quicker than we think, maybe less than a decade.

Economics

Many of the investments in renewal energy will pay for themselves in less than a decade. Implementation of renewable projects should be viewed as an investment. To me it is a no-brainer.

I would encourage the County to assist home owners, builders and apartment owners to find financing for renewal and energy saving investments. Maybe bundling, facilitated by government agencies, would create opportunities for more and less expensive funds to be available.

Renewables have few external costs, whereas fossil fuels have many such as climate change impacts, air pollution, water pollution, health hazards, fire hazard, security costs (domestic and foreign), subsidies, spills, and oil runoff from vehicles to name a few. We all pay for these hidden costs. Considering these costs make the renewables even more attractive.

I213-1
cont.

Other

In the future homes and buildings should run only on electricity – Use heat pumps for heating and cooling, hybrid electrical water heaters and electrical cooking appliances.

Solar panels on rooftops & batteries for housing increases grid stability, reliability and security. It reduces electrical distribution costs and reduces the need for peaker plants. Peaker plants will be a thing of the past.

Environmental justice is a problem in the County, especially near oil operations. Environment justice should be given a heavy weight in considering the future projects to protect Ventura citizens, especially the children.

Comments on some specifics:

CTM-6.6 Policy CTM-6.5: Electric Vehicle Charging Stations.

Comment: Electric vehicles could offer electrical grid stabilization at a low capital cost by utilizing part of their storage to supply power during high electrical demand or when other renewals are not available. This applies to EVs used for personal as well as ride hailing services. As such, charging during daylight hours becomes very desirable and thus charging stations

should be required at all public buildings and parking lots. Businesses should also offer charging at their facilities. Charging hubs that have storage capability to allow for very rapid charging, say, less than 10 minutes, should be built and possibly located at under utilized sites.

Policy COS-8.10: Battery Energy Storage Systems.

Comment: County buildings and critical services should be backed-up using battery storage. This battery storage could be part of a Virtual Power Plant concept (need to coordinate with electrical utilities) and could bring revenue to the County by supply excess capacity during peak demand. Back-up has become very important due to disruptions in electrical service due to fires and fire prevention. These comments also apply to **Implementation Program T: Energy Consumption Performance.**

I213-1
cont.

Policy PFS-7.6: Smart Grid Development.

Comment: Smart grid development is vitally needed to stabilize the grid through both load leveling and utilizing electrical storage efficiently. Battery storage can instantly respond to load variations which will greatly improve efficiency and reduce reserve power levels from variable sources. County building should be equipped with storage and made part of the smart grid.

Thank you for you time and consideration.

Respectfully,

Wayne Morgan
Ventura, CA

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| Letter I213 | Wayne Morgan February 27, 2020 |
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I213-1

The comment addresses policies of the draft 2040 General Plan related to electric vehicle charging, battery energy storage, and smart grids, expresses concerns about climate change and oil production, and provides commentary about transportation technologies, the economics of renewable energy, and other topics. Refer to Master Response MR-4 regarding the comment to phase out oil production in the county. This comment is acknowledged for the record and will be forwarded to the decision-making bodies for their consideration prior to making a decision on adopting a final 2040 General Plan.

Additionally, the comment expresses concerns about environmental justice. Environmental justice is a social concept that melds concepts of racism, classism, and sexism with environmental conditions and advocates for the equitable distribution of environmental hazards. The federal government evaluates environmental justice pursuant to the National Environmental Policy Act to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. The California Environmental Quality Act focuses on physical environmental changes, however, and EIRs are not required to treat a project's economic or social effects as significant effects on the environment (State CEQA Guidelines, § 15131). Social and economic effects need only be considered in an EIR where there is a clear link between those economic or social effects and physical environmental changes. The social and economic issues raised in this comment would not result in adverse physical changes to the environment not already addressed in the draft EIR.

EPIC GROUP

Letter
I214

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

I214-1

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

I214-2

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

I214-3

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually

I214-4

1601 EASTMAN AVENUE, SUITE 100
VENTURA, CALIFORNIA 93003
(805) 642-4773 FAX (805) 642-4662

impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

I214-4
cont.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

I214-5

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

I214-6

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

I214-7

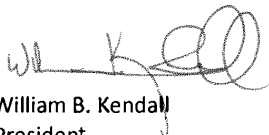
In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

I214-8

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

I214-9

Sincerely,



William B. Kendall
President
Epic Group

| | |
|------------------------|------------------------------------------------|
| Letter I214 | William B. Kendall February 25, 2020 |
|------------------------|------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I4. The responses below provide cross references to the portions of Letter I4 where responses to the same comments have already been provided.

- I214-1 Refer to response to comment I4-1 regarding the adequacy of the draft EIR.
- I214-2 Refer to Master Response MR-5 regarding the feasibility of Mitigation Measure AG-2.
- I214-3 Refer to response to comment I4-3 regarding water availability and cost.
- I214-4 Refer to response to comment I4-4 regarding economic feasibility of 2040 General Plan policies that could affect agricultural operations.
- I214-5 Refer to response to comment I4-5 regarding the commenter's request for detailed studies and Master Response MR-6 for discussion of how the County appropriately uses the Background Report to describe the existing environmental setting in the draft EIR.
- I214-6 See response to comment O32-30 for a discussion of the potential for 2040 General Plan policies and programs that encourage tree planting and preservation for a discussion of the potential to increase wildland fire hazard.
- I214-7 Refer to response to comment I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths.
- I214-8 The commenter refers to letters submitted by Aera Energy. See responses to Letters O5 and O6.
- I214-9 Refer to response to comment I4-9 regarding adequacy of the draft EIR and Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

From: Bill Miller <wamsranch@aol.com>
Sent: Wednesday, February 26, 2020 12:29 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General plan comment

| |
|------------------------|
| Letter I215 |
|------------------------|

Ventura County fails to adequately analyze for impacts to farmland.

The EIR has policies that will create and expand the bike paths and pedestrian trails throughout the County. Some of these proposed areas are in or adjacent to existing ag land. But the County failed to analyze impacts on ag land from these projects.

These projects will result in the direct loss of ag land (through paving a bike land or path) and in the indirect loss of ag land through increasing public access to working ag lands and encouraging theft, vandalism, and trespassing.

In addition, as the public has more access to working farmlands, there will be an increase of complaints of odors, dust, noise, etc.

The County must protect ag land from encroachment caused by increasing public access across ag lands-propose a mitigation measure to establish a set-back (on non-ag land) that prevents the construction of any bike path network or public trail on or adjacent to ag lands.

I215-1

Sincerely, William A. "Bill" Miller

When we have socialism...what is your fair share of what someone else has worked for?

| | |
|------------------------|----------------------------------------------|
| Letter I215 | William A Miller February 26, 2020 |
|------------------------|----------------------------------------------|

I215-1 The comment states that the draft EIR does not adequately analyze potential impacts to farmland, and provides an example of indirect impacts to farmland related to the development/expansion of adjacent bike paths and pedestrian trails. Refer to responses to comments O7-8 and I4-7 regarding potential incompatibilities with adjacent bicycle and pedestrian paths. The potential for development under the 2040 General Plan to directly cause conversion of Important Farmland to nonagricultural use is addressed in Impact 4.2-1. The draft EIR concludes that impacts would be significant and unavoidable, even after implementation of Mitigation Measures AG-1 and AG-2. This conclusion covers all development undertaken pursuant to the 2040 General Plan, and therefore includes development of bicycle paths.

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 South Victoria Avenue, L#1740
 Ventura, CA 93009-1740

Letter
I216

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I am a part of the McLoughlin Family. We have been farming in Ventura County for approximately 150 years. We currently own 300 acres of agricultural property off of Olivas Park Road in the County of Ventura near the Ventura Marina on Harbor Rd, in proximity to the City of Ventura.

The McLoughlin family has farmed this land and other parcels for generations going back to 1863. It remains our desire to continue this legacy, however, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

I216-1

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. That, however, is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. The DEIR, however, never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

I216-2

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. No further details beyond this conclusory statement are provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

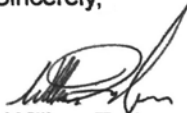
I216-3

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. It's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I216-4

I appreciate your consideration.

Sincerely,



William Taylor



Kasey Taylor

| | |
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| Letter I216 | William Taylor and Kasey Taylor February 27, 2020 |
|--------------------|-------------------------------------------------------------|

This comment letter repeats many of the same comments provided in Letter I8. The responses below provide cross references to the portions of Letter I8 where responses to the same comments have already been provided.

- I216-1 Refer to response to comment I8-12 regarding the history of the McLoughlin family, and the adequacy of the 2040 General Plan and draft EIR.
- I216-2 Refer to response to comment I8-3 regarding roadway expansion, addition of bike paths and lanes, and the resulting loss of farmland and impacts related to farming operations.
- I216-3 Refer to response to comment I8-4 and Master Response MR-2 regarding the 2040 General Plan's consistency with the Save Open Space and Agricultural Resources initiative.
- I216-4 Refer to response to comment I8-5 regarding analysis of economic issues in the draft EIR. Also, refer to Master Response MR-7, which explains in detail why recirculation of the draft EIR is not required.

3 REVISIONS TO THE DRAFT EIR

This chapter presents specific text changes made to the draft EIR since its publication and public review. The changes are presented in the order in which they appear in the original draft EIR and are identified by the draft EIR page number. Text deletions are shown in double ~~strike~~through, and text additions are shown in double underline.

The information contained within this chapter clarifies and expands on information in the draft EIR and does not constitute “significant new information” requiring recirculation. (See the Master Response regarding recirculation; see also Public Resources Code Section 21092.1; CEQA Guidelines Section 15088.5.)

3.1 REVISIONS TO CHAPTER 1: INTRODUCTION

To provide clarification, the text of the second paragraph of Section 1.4, “Lead, Responsible, and Trustee Agencies,” on page 1-5 of the draft EIR is revised as follows:

Responsible agencies are agencies other than the lead agency that have discretionary power over carrying out or implementing a specific component of the general plan or for approving a project (such as an annexation) that implements the goals and policies of the general plan. Agencies that may be responsible agencies include: the California Department of Transportation, which has responsibility for approving future improvements to the state highway system; the Department of Conservation, which has responsibility for ~~approving~~ reviewing and commenting on surface mining Reclamation Plans pursuant to the Surface Mining and Reclamation Act and, through its California Geologic Energy Management Division (CalGEM), responsibility for approving oil and gas wells; and the Local Agency Formation Commission of Ventura County, which has responsibility for approving any annexations within the county that might occur over the life of the 2040 General Plan.

3.2 REVISIONS TO CHAPTER 2: EXECUTIVE SUMMARY

For consistency, the text of Table 2-4 beginning on page 2-16 of the draft EIR is revised as follows:

Table 2-4 Summary of Impacts and Mitigation Measures

| Impacts | Significance Before Mitigation | Mitigation Measures | Significance with Mitigation Measures |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| <p>NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable N/A = discussion is provided for information purposes only and is neither required by CEQA nor subject to its requirements</p> | | | |
| <p>Aesthetics, Scenic Resources, and Light Pollution</p> | | | |
| <p>Impact 4.1-1: Physically Alter a Scenic Resource that is Visible from a Public Viewing Location</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Impact 4.1-2: Substantially Obstruct, Degrade, Obscure, or Adversely Affect the Character of a Scenic Vista that is Visible from a Public Viewing Location</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Impact 4.1-3: Create a New Source of Disability Glare or Discomfort Glare for Motorists Traveling along Any Road of the County Regional Road Network</p> | <p>PS</p> | <p>Mitigation Measure AES-1: New Implementation Program COS-X: Review Discretionary Development for Glare Effects Along Regional Roadway Network Roadways The County shall include the following new implementation program in the 2040 General Plan. <u>Implementation Program COS-X: Review Discretionary Development for Glare Effects Along Regional Road Network Roadways</u> <u>Applicants for future discretionary development projects that include use of reflective surfaces such as metal, glass, or other materials that could produce glare and that the County determines would potentially be visible to motorists traveling along one or more RRN roadways shall submit a detailed site plan and list of project materials to the County for review and approval. If the County determines that the project would include materials that would produce disability or discomfort glare for motorists traveling along one or more RRN roadways then the County will either require the use of alternative materials, such as high-performance tinted non-mirrored glass, painted (non-gloss panels), and pre-cast concrete or fabricated textured wall surfaces, or require that the applicant submit a study demonstrating that the project would not introduce a glare source that exceeds 3:1 in a luminance histogram, which consists of inputting a set of digital photographs from a subject glare source into a computer simulation program and generating a graph that identifies the brightness level of different sections of that scene, from darkest to brightest. Glare impacts from future projects would be considered significant when the glare source to the median of the background ration exceeds 3:1 in a luminance histogram.</u></p> | <p>LTS</p> |
| <p>Impact 4.1-4: Create a New Source of Substantial Light or Glare Which Would Adversely Affect Day or Nighttime Views in the Area</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |

Table 2-4 Summary of Impacts and Mitigation Measures

| Impacts | Significance Before Mitigation | Mitigation Measures | Significance with Mitigation Measures | | | | | | | | | | |
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| <p>Agriculture and Forestry Resources</p> | | | | | | | | | | | | | |
| <p>Impact 4.2-1: Loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance</p> | <p>PS</p> | <p>Mitigation Measure AG-1: New Policy AG-X: Avoid Development on Agricultural Land The County shall include the following new policy in the 2040 General Plan. Policy AG-X: Avoid Development on Agricultural Land <u>The County shall ensure that discretionary development located on land identified as Important Farmland on the State's Important Farmland Inventory shall be conditioned to avoid direct loss of Important Farmland as much as feasibly possible.</u></p> <p>Mitigation Measure AG-2: New Implementation Program AG-X: Establish an Agricultural Conservation Easement The County shall include the following new implementation program in the 2040 General Plan. Implementation Program AG-X: Establish an Agricultural Conservation Easement <u>Applicants for discretionary projects that would result in direct or indirect loss of Important Farmland in exceedance of the acreage loss thresholds listed in the table below shall be required to ensure the permanent protection of offsite farmland of equal quality at a 2:1 1:1 ratio (acres preserved: acres converted) through the establishment of an offsite agricultural conservation easement. "Offsite" means an area that is outside of the project's permit boundaries if applicable, would not be disturbed by the project with respect to agricultural soils or production, and that otherwise complies with the below-stated requirements. Discretionary projects to develop and provide housing for use by farmworkers and their families are not subject to this agricultural conservation easement requirement.</u></p> <table border="1"> <thead> <tr> <th>General Plan Land Use Designation</th> <th>Important Farmland Inventory Classification</th> <th>Acres Lost</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Agricultural</td> <td>Prime/Statewide</td> <td>5</td> </tr> <tr> <td>Unique</td> <td>10</td> </tr> <tr> <td>Local</td> <td>15</td> </tr> </tbody> </table> | General Plan Land Use Designation | Important Farmland Inventory Classification | Acres Lost | Agricultural | Prime/Statewide | 5 | Unique | 10 | Local | 15 | <p>SU</p> |
| General Plan Land Use Designation | Important Farmland Inventory Classification | Acres Lost | | | | | | | | | | | |
| Agricultural | Prime/Statewide | 5 | | | | | | | | | | | |
| | Unique | 10 | | | | | | | | | | | |
| | Local | 15 | | | | | | | | | | | |

Table 2-4 Summary of Impacts and Mitigation Measures

| Impacts | Significance Before Mitigation | Mitigation Measures | | | Significance with Mitigation Measures | | | | | | | | | | | | | | | | | | |
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| <p>NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable N/A = discussion is provided for information purposes only and is neither required by CEQA nor subject to its requirements</p> | | | | | | | | | | | | | | | | | | | | | | | |
| | | <table border="1"> <tr> <td>Open Space/Rural</td> <td>Prime/Statewide</td> <td>10</td> </tr> <tr> <td></td> <td>Unique</td> <td>15</td> </tr> <tr> <td></td> <td>Local</td> <td>20</td> </tr> <tr> <td>All Land Use Designations</td> <td>Prime/Statewide</td> <td>20</td> </tr> <tr> <td></td> <td>Unique</td> <td>30</td> </tr> <tr> <td></td> <td>Local</td> <td>40</td> </tr> </table> | Open Space/Rural | Prime/Statewide | 10 | | Unique | 15 | | Local | 20 | All Land Use Designations | Prime/Statewide | 20 | | Unique | 30 | | Local | 40 | | | <p><u>If the Planning Division, in consultation with the Agricultural Commissioner, determines that a discretionary project would result in direct or indirect loss of Important Farmland in exceedance of the acreage loss thresholds listed in the table above, the project applicant shall prepare and submit a report for the review and approval of the Planning Division in consultation with the Agricultural Commissioner which identifies a minimum of one proposed potential mitigation site suitable for ensuring the permanent protection of offsite farmland of equal quality at a 2:1 ratio (acres preserved: acres converted) through the establishment of an one or more offsite agricultural conservation easements. The preservation of more than one site agricultural conservation easement may be considered in order to meet the required number of acres. The applicant shall also deposit funds with the County to contract with a qualified third-party agricultural economic consultant to review and advise the Planning Division and Agricultural Commissioner regarding the establishment and implementation of the agricultural conservation easement(s). The contents of the report shall be determined, reviewed, and approved by the Planning Division in consultation with the Agricultural Commissioner (hereafter referred to as the "reviewing agencies"), and shall include information necessary for the reviewing agencies and a qualified entity responsible for holding the conservation easement (e.g., a land trust organization) to determine the viability of the proposed mitigation site(s) for the establishment of a permanent agricultural conservation easement.</u></p> <p><u>Among the factors necessary for approval by the reviewing agencies, the proposed mitigation site(s) shall be located in the County of Ventura unincorporated area, must not already have permanent protection, and must be equivalent to or greater than the type of Important Farmland</u></p> |
| Open Space/Rural | Prime/Statewide | 10 | | | | | | | | | | | | | | | | | | | | | |
| | Unique | 15 | | | | | | | | | | | | | | | | | | | | | |
| | Local | 20 | | | | | | | | | | | | | | | | | | | | | |
| All Land Use Designations | Prime/Statewide | 20 | | | | | | | | | | | | | | | | | | | | | |
| | Unique | 30 | | | | | | | | | | | | | | | | | | | | | |
| | Local | 40 | | | | | | | | | | | | | | | | | | | | | |

Table 2-4 Summary of Impacts and Mitigation Measures

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| | | <u>(e.g., Unique farmland) that would be converted by the project, and must be of sufficient size to be viable for long term farming use as determined by the County. Among other terms that may be required by the reviewing agencies in consultation with a qualified entity, the terms of an agricultural conservation easement shall include a requirement that it run with the land. There must also be a provision for annual monitoring by the qualified entity or its representative to ensure adherence to the terms of the conservation easement. Project applicants are responsible for all costs incurred by the County and the qualified entity to successfully implement this mitigation measure. Proof of the successful establishment of an agricultural conservation easement shall be provided to the Planning Division prior to issuance of a zoning clearance for inauguration of the project.</u> | |
| Impact 4.2-2: Result in Classified Farmland Near Any Nonagricultural Land Use or Project | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.2-3: Conflict with Williamson Act Contracts or Agricultural Preserves | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.2-4: Conflict with Land Zoned as Forestland, Timberland, or Timberland Production Zone | LTS | No mitigation is required for this impact. | LTS |
| Air Quality | | | |
| Impact 4.3-1: Conflict with or Obstruct Implementation of the 2016 Ventura County Air Quality Management Plan | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.3-2: Cause Construction-Generated Criteria Air Pollutant or Precursor Emissions to Exceed VCAPCD-Recommended Thresholds | PS | Mitigation Measure AQ-1a: New Policy HAZ-X: Construction Air Pollutant Best Management Practices The County shall include the following new Policy HAZ-X in the 2040 General Plan. <u>Policy HAZ-X: Construction Air Pollutant Best Management Practices</u> <u>Discretionary development projects that will generate construction-related air emissions shall be required by the County to incorporate best management practices (BMPs) to reduce emissions. These BMPs shall include the measures recommended by VCAPCD in its Air Quality</u> | SU |

Table 2-4 Summary of Impacts and Mitigation Measures

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| | | <p><u>Assessment Guidelines or otherwise to the extent applicable to the project.</u></p> <p>The County shall ensure that discretionary development will, to the extent feasible, incorporate best management practices (BMPs) to reduce emissions to be less than applicable thresholds. These BMPs include but are not limited to the most recent VCAPCD recommendations for construction BMPs (per the Air Quality Assessment Guidelines or as otherwise identified by VCAPCD).</p> <p>Mitigation Measure AQ-1b: New Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices The County shall include the following new implementation program in the 2040 General Plan.</p> <p><u>Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices</u></p> <p>Applicants for future discretionary development projects that would generate construction-related air emissions that exceed applicable thresholds, will shall be required to include, but are not limited to, the following types of emission reduction mitigation measures and potentially others, as recommended by VCAPCD (in its Air Quality Assessment Guidelines Guidance or otherwise), to the extent feasible and applicable to the project as determined by the County. The types of measures shall include but are not limited to: maintaining equipment per manufacturer specifications; lengthening construction duration to minimize number of vehicle and equipment operating at the same time during the summer months; use of Tier 3 at a minimum, or Tier 4 if commercially available diesel engines in all off-road construction diesel equipment, at a minimum; and, if feasible¹ using electric-powered or other alternative fueled equipment in place of diesel powered equipment (whenever feasible).</p> <p><u>1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set</u></p> | |

Table 2-4 Summary of Impacts and Mitigation Measures

| Impacts | Significance Before Mitigation | Mitigation Measures | Significance with Mitigation Measures |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
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| | | <p>forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines section 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.</p> <p>Mitigation Measure AQ-2a: New Policy HAZ-X: Fugitive Dust Best Management Practices</p> <p>The County shall include the following new policy in the 2040 General Plan.</p> <p><u>Policy HAZ-X: Fugitive Dust Best Management Practices</u> The County shall ensure that discretionary development which will generate fugitive dust emissions during construction activities will, to the extent feasible, incorporate appropriate BMPs that to reduce emissions to be less than applicable thresholds.</p> <p>Mitigation Measure AQ-2b: New Implementation Program HAZ-X: Fugitive Dust Best Management Practices</p> <p>The County shall include the following new implementation program in the 2040 General Plan.</p> <p><u>Implementation Program HAZ-X: Fugitive Dust Best Management Practices</u> Applicants for future Discretionary development projects that which will generate construction-related fugitive dust emissions that exceed applicable thresholds will shall be required by the County to include, but are not limited to, the types of mitigation dust reduction measures recommended by VCAPCD's in its Air Quality Assessment Guidelines, or otherwise, to the extent feasible and applicable such as:</p> <ul style="list-style-type: none"> ▶ The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excess amounts of dust. ▶ The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excess amounts of dust. ▶ Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of watering (preferably reclaimed, | |

Table 2-4 Summary of Impacts and Mitigation Measures

| Impacts | Significance Before Mitigation | Mitigation Measures | Significance with Mitigation Measures |
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| | | <p>if available) should penetrate sufficiently to minimize fugitive dust during grading activities.</p> <ul style="list-style-type: none"> ▶ <u>Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:</u> <ul style="list-style-type: none"> ▪ <u>All trucks shall be required to cover their loads as required by California Vehicle Code Section 23114.</u> ▪ <u>All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.</u> ▶ <u>Graded and/or excavated inactive areas of the construction site shall be monitored by (indicate by whom) at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.</u> ▶ <u>Signs shall be posted on-site limiting traffic to 15 miles per hour or less.</u> ▶ <u>During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with VCAPCD when winds are excessive.</u> ▶ <u>Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.</u> ▶ <u>Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in</u> | |

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| | | <p><u>accordance with California Division of Occupational Safety and Health regulations.</u></p> | |
| <p>Impact 4.3-3: Result in a Net Increase in Long-Term Operational Criteria Air Pollutant and Precursor Emissions That Exceed VCAPCD-Recommended Thresholds</p> | <p>PS</p> | <p>No feasible mitigation is available for this impact beyond the policies and implementation programs included in the 2040 General Plan. Refer to Impact 4.3-3 in Section 4.3, "Air Quality," for explanation.</p> | <p>SU</p> |
| <p>Impact 4.3-4: Result in a Short- or Long-Term Increase in Localized CO Emissions That Exceed VCAPCD-Recommended Thresholds</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Impact 4.3-5: Expose Sensitive Receptors to Substantial Increases in Toxic Air Contaminant Emissions</p> | <p>PS</p> | <p>Mitigation Measure AQ-3: New Policy HAZ-10.X: Setback Requirements <u>Health Risk Assessments</u> for Sensitive Land Uses Near Heavily Traveled Transportation Corridors The County shall include the following new policy in the 2040 General Plan. <u>Policy HAZ-10.X: Setback Requirements Health Risk Assessments for Sensitive Land Uses Near Heavily Traveled Transportation Corridors</u> The County shall require discretionary development for land uses which include sensitive receptors which are considered to be (populations or uses that are more susceptible to the effects of air pollution than the general population, such as long term health care facilities, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds) <u>are located at least 500 1,000 feet from any freeway or urban road with traffic volumes that exceed 100,000 vehicles per day, or rural roads that exceed 50,000 vehicles per day. New sensitive receptor use structures can be located within 500 1,000 feet from a new or existing freeway or urban road with traffic volumes that exceed 100,000 vehicles per day, or rural road with traffic volumes that exceed 50,000 vehicles per day only if a project applicant first prepares a qualified, site-specific health risk assessment (HRA). The HRA shall be conducted in accordance with guidance from VCAPCD and approved by VCAPCD. If the HRA determines that a nearby sensitive receptor would be exposed to an incremental increase in cancer risk greater than 10 in 1 million, then design measures shall be incorporated to reduce the level of risk exposure to less than 10 in 1 million. No further action shall be required if the HRA demonstrates that the level of cancer risk would be less than 10 in 1 million. Project design</u></p> | <p>LTS</p> |

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| | | <p>features that may be considered in an HRA may include, but are not limited to: installing air intakes furthest away from the heavily traveled transportation corridor; installing air filtration (as part of mechanical ventilation systems or stand-alone air cleaner); using air filtration devices rated MERV-13 or higher; requiring ongoing maintenance plans for building HVAC air filtration systems; limiting window openings and window heights on building sides facing the heavily traveled transportation corridor; or permanently sealing windows so they don't open on the side of the building facing the heavily traveled transportation corridor; and installing vegetative barriers, considering height and cover thickness, to create a natural buffer between sensitive receptors and the emissions source. For purposes of this policy, "sensitive receptors" means populations or uses that are more susceptible to the effects of air pollution than the general population such as long-term health care facilities, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds.</p> | |
| <p>Impact 4.3-6: Result in Other Emissions (Such as those Leading to Odors) Adversely Affecting a Substantial Number of People</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Biological Resources</p> | | | |
| <p>Impact 4.4-1: Disturb or Result in Loss of Special-Status Species and Habitat</p> | <p>PS</p> | <p>Mitigation Measure BIO-1: New Implementation Program COS-X: Protection of Sensitive Biological Resources The County shall include the following new implementation program in the 2040 General Plan. Implementation Program COS-X: Protection of Sensitive Biological Resources The County shall update the Initial Study Assessment Guidelines, Biological Resources Assessment report criteria to evaluate discretionary development that could potentially impact sensitive biological resources with the following: The qualified biologist shall conduct an initial data review to determine the sensitive biological resources (i.e., special status plant, special status wildlife, sensitive habitats [e.g., riparian habitat, sensitive plant communities, ESA, coastal beaches, sand dunes, other sensitive natural communities], wetlands and other non-wetland waters, native wildlife nursery sites, or wildlife corridors) that have the potential to occur within</p> | <p>SU</p> |

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| | | <p>the project footprint. This will include but not be limited to review of the best available, current data including vegetation mapping data, mapping data from the County and California Coastal Commission, and database searches of the CNDDDB and the CNPS Inventory of Rare and Endangered Plants of California.</p> <p>The qualified biologist shall conduct a reconnaissance level survey for sensitive biological resources within the project footprint (including proposed access roads, proposed staging areas, and the immediate vicinity surrounding the project footprint) to determine whether sensitive biological resources identified during the initial data review have potential to occur.</p> <p>If the reconnaissance level survey identifies no potential for sensitive biological resources to occur, the applicant will not be subject to additional mitigation measures.</p> <p>If sensitive biological resources are observed or determined to have potential to occur within or adjacent to the project footprint during the reconnaissance level survey, then the following measures shall apply:</p> <p>Special Status Species</p> <p>If special status species are observed or determined to have potential to occur within or adjacent to the project footprint, a qualified biologist shall conduct focused or protocol level surveys for these species where established, current protocols are available (e.g., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018], Staff Report on Burrowing Owl Mitigation [CDFG 2012]). If an established protocol is not available for a special status species, then the qualified biologist will consult with the County, and CDFW or USFWS, to determine the appropriate survey protocol.</p> <p>If special status species are identified during protocol level surveys, then the County shall require implementation of mitigation measures that fully account for the adversely affected resource. When feasible, mitigation measures should adhere to the following priority: avoid impacts, minimize impacts, and compensate for impacts.</p> <p>If impacts on special status species are unavoidable, then the project proponent shall obtain incidental take authorization from USFWS or CDFW (e.g., for species listed under ESA or CESA) prior to</p> | |

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| | | <p>commencing development of the project site, apply minimization measures or other conditions required under incidental take authorization, and shall compensate for impacts to special status species by acquiring or protecting land that provides habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of project implementation, generally at least a 1:1 ratio. Compensation may include purchasing credits from a USFWS or CDFW approved mitigation bank or restoring or enhancing habitat within the project site or outside of the project site.</p> <p><u>Sensitive Habitats, Wetlands, Other Non-wetland Waters, Native Wildlife Nursery Sites, and Wildlife Corridors</u></p> <p>If sensitive habitats, wetlands, other non wetland waters, native wildlife nursery sites, and wildlife corridors are identified within or adjacent to the project footprint, these features shall be avoided, if feasible, by implementing no disturbance buffers around sensitive habitats, wetlands, other non wetland waters, or native wildlife nursery sites, and avoiding development within wildlife corridors or implementing project-specific design features (e.g., wildlife friendly fencing and lighting) within wildlife corridors, such that direct and indirect adverse effects of project development are avoided.</p> <p>A delineation of aquatic habitat within a project site (including waters of the United States and other waters including those under State jurisdiction) including identification of hydrology, hydric soils, and hydrophytic vegetation, by a qualified biologist may be required to identify the exact extent of wetlands or other water features identified within or adjacent to the project footprint.</p> <p>If impacts to sensitive habitats, wetlands, other non wetland waters, native wildlife nursery sites, and wildlife corridors cannot be avoided, then the project proponent shall obtain required regulatory authorization (e.g., Section 404 permits for impacts to waters of the United States, 401 water quality certification from the Regional Water Quality Control Board, a Streambed Alteration Agreement for impacts to aquatic or riparian habitats within CDFW jurisdiction under Fish and Game Code Section 4602, a coastal development permit for impacts to ESHA), and shall compensate for unavoidable losses of these resources. Compensation may include restoration of sensitive habitats, wetlands, other non wetland waters, native wildlife nursery sites, and wildlife corridors within or outside</p> | |

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| | | <p>of the project site, preserving the aforementioned resources through a conservation easement at a sufficient ratio to offset the loss of acreage and habitat function, or purchasing credits at an existing authorized mitigation bank or in lieu fee program. The County shall require restoration or compensation for loss of sensitive habitats, wetlands, other non-wetland waters, native wildlife nursery sites, and wildlife corridors at a minimum of a 1:1 ratio or "no net loss."</p> <p><u>Implementation Program COS-X: Protection of Sensitive Biological Resources</u> <u>For any future discretionary development project that could potentially impact sensitive biological resources, the project shall be evaluated pursuant to the methodology described in the Ventura County Initial Study Assessment Guidelines which shall be amended within one year of 2040 General Plan adoption to include the following:</u></p> <ul style="list-style-type: none"> ▶ <u>A preliminary assessment of the project shall be completed by County staff, in consultation with a qualified biologist, using available mapped biological resource data and aerial imagery to determine if the project has the potential to impact sensitive biological resources in the defined impact area (direct and indirect impacts). County staff will determine if project conditions or mitigation measures can be developed and implemented that would reduce or avoid those impacts to a less than significant level without requiring a more comprehensive biological resource assessment, otherwise known as an Initial Study Biological Assessment. Examples of projects that would not require a biological resource assessment may include but are not limited to: Projects that occur in previously developed areas, if additional vegetation removal is not required or the use may not impact surrounding natural areas; or projects on land consisting of non-native grasslands totaling less than one acre that are completely surrounded by existing urban development (such as urban infill lots).</u> ▶ <u>If County staff find that the project may adversely affect sensitive biological resources, then a County approved qualified biologist shall prepare a biological resource assessment to assess and mitigate the adverse impacts of the proposed project. The procedures detailed in Step 3 of the County of Ventura Initial Study Guidelines, Biological</u> | |

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| | | <p><u>Resources Chapter, Methodology Section shall be followed to prepare this biological resource assessment.</u></p> <ul style="list-style-type: none"> ▶ <u>The biological resource assessment shall be conducted by a County approved qualified biologist that meets the minimum qualifications for biological consultants listed in Attachment 1 to the County of Ventura Initial Study Assessment Guidelines. The qualified biologist shall have expertise in the taxonomic group or species on which the surveys are focused as well as the County’s data review procedures and survey methods recommended by natural resource agencies or commonly accepted standards in the taxonomic group, community, or species (e.g., California Native Plant Society survey protocols).</u> ▶ <u>The biological field survey area will be determined by the County agency responsible for administering the project with consideration of recommendations from the qualified biologist. The survey area will include all areas of proposed disturbance, including associated equipment or personnel staging areas, and the surrounding area of potential sensitive biological resources that may be indirectly adversely affected by the project. The size of the survey area will be based on the characteristics of surrounding habitat, the potential for sensitive biological resources to occur, and the nature of the project. For example, an infill project within an already developed area may not require a large survey area; however, a development project adjacent to natural habitat may require a larger survey area based on the potential for disturbance. The procedure for delineating the size of the survey area will follow Step 1 of the County of Ventura Initial Study Guidelines, Biological Resources Chapter, Methodology Section.</u> ▶ <u>Prior to conducting any field surveys, the qualified biologist shall conduct an initial data review to determine the type of sensitive biological resources that may occur within the survey area using the procedures detailed in Step 3 (a) of the County of Ventura Initial Study Guidelines, Biological Resources Chapter, Methodology Section. This will include but not be limited to review of the best available, current data including: vegetation mapping data, mapping data from the County (Locally Important Species, Habitat</u> | |

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| | | <p><u>Connectivity and Wildlife Corridor, Water Protection District data, past biological reports in the area, etc.); National Wetland Inventory Database (NWI); USGS National Hydrographic Dataset; EcoAtlas; and database searches of the US Fish and Wildlife Service Critical Habitat, Environmental Conservation Online System (ECOS) and Information, Planning, and Conservation System (IPaC); California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB); and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California; Audubon Important Bird Areas and Red Lists, Xerces Society, etc.</u></p> <p><u>Biological Inventory -Special Status Species, Sensitive Habitats, Wetlands, Other Non-wetland Waters, Native Wildlife Nursery Sites, and Wildlife Corridors</u></p> <ul style="list-style-type: none"> ▶ <u>The biological inventory shall be conducted as detailed in Step 3 (b) Conduct Field Survey and (c) biological inventory, of the County of Ventura Initial Study Guidelines, Biological Resources Chapter, Methodology Section, which includes a general floristic survey of the project impact areas.</u> ▶ <u>Vegetation communities within the survey area shall be inventoried using the CDFW vegetation classification standards (Manual of California Vegetation) and the most recent version of CDFW vegetation mapping standards "Survey of California Vegetation Classification and Mapping Standards [CDFW, 2019].</u> ▶ <u>If the initial data review shows a wetland or water occurring within 300 feet (in non-coastal zone) or 500 feet (in coastal zone) from the edge of the proposed disturbance areas, then a qualified biologist shall delineate the aquatic habitat (including waters of the United States and other waters including those under State jurisdiction). A summary of the type of aquatic habitat, primary water source, species diversity, connectivity to off-site habitat or other hydrological features, hydric soils, and hydrophytic vegetation, and the boundary of the feature (based upon the outermost limit of associated vegetation (canopy drip line or scrub line), hydric soils, bank and bed – whichever is greater) shall be included in the biological resource assessment.</u> | |

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| | | <ul style="list-style-type: none"> ▶ <u>If the initial data review indicates that sensitive biological resources have the potential to occur within the survey area, a qualified biologist shall conduct additional focused surveys for these species or other protected habitats using the most recently updated protocols recommended by natural resource agencies (e.g., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018], Staff Report on Burrowing Owl Mitigation [CDFG 2012]), or if not available, standards accepted in the professional biological community to survey that taxonomic group, community, or species. If an established protocol is not available for a special-status species then the qualified biologist will consult with the County, and CDFW or USFWS, to determine the appropriate survey protocol.</u> <p><u>Mitigation for Special-Status Species, Sensitive Habitats, Wetlands, Other Non-wetland Waters, Native Wildlife Nursery Sites, and Wildlife Corridors</u></p> <ul style="list-style-type: none"> ▶ <u>If a sensitive biological resource is identified during field surveys, then the County shall require implementation of mitigation measures at the project level that fully account for the adversely affected resource. To the maximum extent feasible, mitigation measures should adhere to the following priority to reduce adverse impacts of a proposed project to the resource: avoid impacts, minimize impacts, and compensate for impacts.</u> ▶ <u>Mitigation measures shall be used on a project level basis and be tailored to on site conditions and sensitive biological resources present as follows:</u> <ul style="list-style-type: none"> ▪ <u>Priority 1. Avoid of Impacts: Proposed development shall avoid impacts to the maximum extent feasible by not taking certain actions or parts of an action. Projects shall be sited to avoid direct or indirect impacts on the resource, and include measures such as implementing no-disturbance buffers (e.g., nesting bird buffer areas during construction, siting staging areas outside buffer area), or implementing project-specific design features (e.g., wildlife-friendly fencing and lighting in a wildlife corridor), such that indirect adverse effects of project development are avoided.</u> | |

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| | | <ul style="list-style-type: none"> ▪ <u>Priority 2. Minimize Impacts: Proposed development shall be conditioned to minimize adverse impacts by limiting the degree or magnitude of the action and its implementation to less than significant to the maximum extent feasible. Other mitigation measures may include reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.</u> <ul style="list-style-type: none"> • <u>Measures to mitigate the spread of invasive plant species and invasive wildlife species (e.g., New Zealand mudsnail) shall include but will not be limited to: cleaning of equipment, footwear, and clothing before entering a construction site and the identification and treatment of significant infestations of invasive plant species within a project site.</u> ▪ <u>Priority 3. Compensate for Impacts: Compensating for the impact can be done by replacing or providing substitute resources or by rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.</u> ▶ <u>Compensatory mitigation ratios for protected sensitive resources will be established based on the rarity of the resource, quality of affected habitat associated with the resource, temporary and permanent losses to habitat function, the type of mitigation proposed (restoration, enhancement, preservation, establishment), and other requirements associated with state or federal permits. Mitigation ratios will be determined at the project level in consultation with the County, the qualified biologist, and, where applicable, federal or state agencies with jurisdiction over the resource (e.g., CDFW, USACE, USFWS).</u> ▶ <u>If impacts on a protected sensitive biological resource are unavoidable, then the project proponent shall mitigate for the type of resource as follows:</u> <ul style="list-style-type: none"> ▪ <u>Endangered, Rare, Threatened, or Candidate Species: The applicant shall obtain incidental take authorization from USFWS (16 U.S. Code [U.S.C.] Section 1531 et seq.) or CDFW (California Fish and Game Code Sections 2050–2115.5) prior to</u> | |

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| | | <p><u>commencing development of the project site, apply minimization measures or other conditions required under the incidental take authorization, and shall provide equivalent compensation for the unavoidable losses of these resources, generally at a minimum ratio of 1:1, or greater. Compensation may include purchasing credits from a USFWS- or CDFW-approved mitigation bank or restoring or enhancing habitat within the project site or outside of the project site.</u></p> <ul style="list-style-type: none"> ▪ <u>Special-Status Species (includes Locally Important Species): The applicant shall provide equivalent compensation for impacts on special-status species by restoring or significantly enhancing existing habitat where the species occurs, acquiring or protecting land that provides habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of project implementation.</u> <p>▶ <u>If impacts on sensitive habitats, wetlands, other non-wetland waters, riparian habitats, native wildlife nursery sites, and wildlife corridors cannot be avoided, then the project applicant shall:</u></p> <ul style="list-style-type: none"> ▪ <u>Federal or State Protected Sensitive Habitats: Obtain the required regulatory authorization (e.g., Section 404 permits for impacts on waters of the United States, 401 water quality certification from the Regional Water Quality Control Board, a Streambed Alteration Agreement for impacts on aquatic or riparian habitats within CDFW jurisdiction under Fish and Game Code Section 1602, a coastal development permit for impacts on ESHA), and provide equivalent compensation for the unavoidable losses of the above mentioned resources such that there is no net loss.</u> ▪ <u>Other Protected Sensitive Habitats (includes locally important plant communities, sensitive natural communities, habitat connectivity and wildlife corridors, native wildlife nursery or overwintering sites): Provide compensation for other protected sensitive habitats which may include the restoration, enhancement, or preservation of the aforementioned habitats within or outside of the project site, or the purchasing of credits</u> | |

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| | | <p><u>at an existing mitigation bank or in lieu fee program deemed acceptable by the County Planning Director.</u></p> <ul style="list-style-type: none"> ▶ <u>All compensatory mitigation sites shall be protected in perpetuity through a conservation easement (if off-site), or deed restriction (or other comparable legal instrument) if on-site.</u> <p><u>The County shall, in harmonizing the 2040 General Plan with the Ventura County Initial Study Assessment Guidelines, add definitions for the habitat types included in this mitigation measure, including which components are subject to compliance with the County's Local Coastal Program and Coastal Zoning Ordinance versus non-coastal areas.</u></p> <p><u>1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.</u></p> <p><u>2. "Mitigation, No-Net-Loss" A principle where if a development project cannot avoid the loss of a valued natural resource, the project mitigates the impacts by replacing the impacted habitat with a newly created or restored habitat of the same size and similar functional condition so that there is no loss of ecological functions and values of that habitat type for a defined area. Similar functional condition means the relative ability to support and maintain the same species composition, diversity, and functional organization as the impacted habitat.</u></p> | |
| Impact 4.4-2: Disturb or Result in Loss of Riparian Habitat, Sensitive Plant Communities, ESHA, Coastal Beaches, Sand Dunes, and Other Sensitive Natural Communities | PS | Mitigation Measure BIO-1: New Implementation Program COS-X: Protection of Sensitive Biological Resources | SU |
| Impact 4.4-3: Disturb or Result in Loss of Wetlands and other Waters | PS | Mitigation Measure BIO-1: New Implementation Program COS-X: Protection of Sensitive Biological Resources | SU |

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| Impact 4.4-4: Interfere with Resident or Migratory Wildlife Corridors or Native Wildlife Nursery Sites | PS | Mitigation Measure BIO-1: New Implementation Program COS-X: Protection of Sensitive Biological Resources | SU |
| Impact 4.4-5: Conflict with Any Local Policies or Ordinances Protecting Biological Resources | LTS | No mitigation is required for this impact. | LTS |
| <p>Cultural, Tribal Cultural, and Paleontological Resources</p> | | | |
| Impact 4.5-1: Substantial Adverse Change in the Significance of an Archaeological Resource Pursuant to PRC 5024.1 and CEQA | PS | <p>Mitigation Measure CUL-1a: Revised Policy COS-4.4: Discretionary Development and Cultural, Historical, Paleontological, and Archaeological Resource Preservation The County shall include the following revised policy in the 2040 General Plan.</p> <p>Policy COS-4.4: Discretionary Development and Tribal, Cultural, Historical, Paleontological, and Archaeological Resource Preservation</p> <p>The County shall require <u>that all</u> discretionary development <u>projects</u> be assessed for potential <u>tribal, cultural, historical, paleontological, and archaeological resources</u> by a qualified professional <u>and shall</u> be designed to <u>protect existing resources, and shall avoid potential impacts to those resources whenever to the maximum extent feasible.</u></p> <p><u>Whenever possible, significant impacts shall be reduced to a less-than-significant level through the application of feasible mitigation and/or shall be mitigated by extracting extraction of maximum recoverable data.</u></p> <p><u>Priority shall be given to measures that avoid resources.</u></p> <p>Mitigation Measure CUL-1b: New Implementation Program COS-X: Cultural Records Research The County shall include the following new implementation program in the 2040 General Plan.</p> <p>Implementation Program COS-X: Cultural Records Research</p> <p><u>As part of a discretionary application process, project applicants (Ventura County for County projects) shall initiate a records search and Sacred Lands File search with the South Central Coastal Information Center.</u></p> | SU |

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| | | <p>Mitigation Measure CUL-1c: New Implementation Program COS-X: Cultural, Historical, Paleontological, and Archaeological Resource Assessment Procedures</p> <p>The County shall include the following new implementation program in the 2040 General Plan.</p> <p><u>Implementation Program COS-X: Cultural, Historical, Paleontological, and Archaeological Resource Assessment Procedures</u></p> <p><u>For discretionary projects, the County shall require the following:</u></p> <p><u>Projects shall be designed to protect existing resources and shall avoid potential impacts to the maximum extent feasible.¹</u></p> <p><u>If determined necessary by the County, an archaeological, or paleontological, and/or Native American monitor shall be retained to monitor ground-disturbing activities during construction.</u></p> <p><u>If any materials or artifacts are discovered during ground disturbance and/or construction activities, construction shall halt until a qualified archaeologist, paleontologist, or Native American monitor can access the discovery. A report or memorandum shall be prepared by the qualified monitor documenting any findings and identifying recommendations for protection or avoidance of discovered resources. Recommendations or mitigation identified by the qualified monitor shall be implemented prior to commencing or continuing project activities and/or construction.</u></p> <p><u>1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.</u></p> | |

Table 2-4 Summary of Impacts and Mitigation Measures

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| <p>Impact 4.5-2: Substantial Adverse Change in the Significance of a Historic Resource Pursuant to PRC 5024.1 and CEQA</p> | <p>PS</p> | <p>Mitigation Measure CUL-1a: Revised Policy COS-4.4: Discretionary Development and Cultural, Historical, Paleontological, and Archaeological Resource Preservation</p> <p>Mitigation Measure CUL-1b: New Implementation Program COS-X: Cultural Records Research</p> <p>Mitigation Measure CUL-1c: New Implementation Program COS-X: Cultural, Historical, Paleontological, and Archaeological Resource Assessment Procedures</p> <p>Mitigation Measure CUL-2: Revised Policy COS-4.7: Cultural Heritage Board Review The County shall include the following revised policy in the 2040 General Plan.</p> <p>Policy COS-4.7: Cultural Heritage Board Review Prior to environmental review of discretionary development projects, the County shall initiate a records search request with the South Central Coastal Information Center and coordinate with the Cultural Heritage Board to identify sites of potential archaeological, historical, tribal cultural and paleontological significance, to ensure that all known resources have been properly identified. Should a site of archaeological, tribal, architectural, or historical significance be identified, the County shall provide an opportunity for the Cultural Heritage Board to include recommendations specific to the discretionary project and identified resource(s). If it is determined during the review that determine whether a site has potential archaeological, tribal, architectural, or historical significance, and provide this information shall be provided to the County Cultural Heritage Board for evaluation. and recommendation Recommendations identified by the Cultural Heritage Board shall be provided to the appropriate decision-making body.</p> <p>Mitigation Measure CUL-3: New Implementation Program COS-X: Project-Level Historic Surveys and Protection of Historic Resources The County shall include the following new implementation program in the 2040 General Plan.</p> <p>Implementation Program COS-X: Project-Level Historic Surveys and Protection of Historic Resources During project-specific environmental review of discretionary development, the County shall define the project's area of potential</p> | <p>SU</p> |

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| | | <p><u>effect for historic buildings and structures. The County shall determine the potential for the project to result in historic resource impacts, based on the extent of ground disturbance and site modification anticipated for the project. The potential for adverse impacts to historic resources shall also be determined pursuant to the requirements and protocol set forth in the Ventura County ISAG and Cultural Heritage Board Ordinance.</u></p> <p><u>Before altering or otherwise affecting a building or structure 50 years old or older, the project-applicant shall retain a qualified architectural historian according to the Secretary of the Interior Standards, to record it on a California Department of Parks and Recreation DPR 523 form or equivalent documentation, if the building has not previously been evaluated. Its significance shall be assessed by a qualified architectural historian, using the significance criteria set forth for historic resources under CEQA Guidelines Section 15064.5. The evaluation process shall include the development of appropriate historical background research as context for the assessment of the significance of the structure in the county and the region. For buildings or structures that do not meet PRC 5024.1 or the CEQA criteria for historical resource, no further mitigation is required.</u></p> <p><u>For a building or structure that qualifies as a historic resource, the architectural historian and the County shall consult to consider measures that would enable the project to avoid direct or indirect impacts to the building or structure. These could include preserving a building on the margin of the project site, using it "as is," or other measures that would not alter the building. If the project cannot avoid modifications to a historic building or structure, the following shall be considered:</u></p> <ol style="list-style-type: none"> <u>1) If the building or structure can be preserved on site, but remodeling, renovation or other alterations are required, this work shall be conducted in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.</u> <u>2) If a significant historic building or structure is proposed for major alteration or renovation, or to be moved and/or demolished, the County shall ensure that a qualified architectural historian thoroughly documents the building and associated landscape and setting. Documentation shall include still and video photography and a written documentary record/history of the building to the</u> | |

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| | | <p><u>standards of the Historic American Building Survey or Historic American Engineering Record, including accurate scaled mapping, architectural descriptions, and scaled architectural plans, if available. The record shall be prepared in consultation with State Historic Preservation Officer and filed with the Office of Historic Preservation. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site specific and comparative archival research, and oral history collection as appropriate.</u></p> <p>3) <u>If preservation and reuse at the site are not feasible,¹ the historical building shall be documented as described in item (2) and, when physically and financially feasible,¹ be moved and preserved or reused.</u></p> <p>4) <u>If, in the opinion of the qualified architectural historian, the nature and significance of the building is such that its demolition or destruction cannot be fully mitigated through documentation, the County shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the proposed project that would allow the structure to be preserved intact. These could include project redesign, relocation or abandonment. If no such measures are feasible,¹ the historical building shall be documented as described in item (2).</u></p> <p><u>1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.</u></p> | |

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| <p>Impact 4.5-3: Substantial Adverse Change in the Significance of a Tribal Cultural Resources</p> | <p>PS</p> | <p>Mitigation Measure CUL-1a: Revised Policy COS-4.4: Discretionary Development and Cultural, Historical, Paleontological, and Archaeological Resource Preservation</p> <p>Mitigation Measure CUL-1b: New Implementation Program COS-X: Cultural Records Research</p> <p>Mitigation Measure CUL-1c: New Implementation Program COS-X: Cultural, Historical, Paleontological, and Archaeological Resource Assessment Procedures</p> <p>Mitigation Measure CUL-2: Revised Policy COS-4.7: Cultural Heritage Board Review</p> <p>Mitigation Measure CUL-4: Revised Policy COS-4.1: Cultural, Historical, Paleontological, and Archaeological Resources Inventory</p> <p>The County shall include the following revised policy in the 2040 General Plan.</p> <p>Policy COS-4.1: Tribal, Cultural, Historical, Paleontological, and Archaeological Resources Inventory</p> <p>The County shall maintain an inventory of <u>tribal</u>, cultural, historical, paleontological, and archaeological resources in Ventura County based on project studies and secondary resources, <u>including record studies and reports filed with natural history programs, the California Historical Resources Information System and the Native American Heritage Commission.</u></p> <p>Mitigation Measure CUL-5: Revised Policy COS-4.2: Cooperation for Cultural, Historical, Paleontological, and Archaeological Resource Preservation</p> <p>The County shall include the following revised policy in the 2040 General Plan.</p> <p>Policy COS-4.2a: Cooperation for Tribal Cultural, Historical, Paleontological, and Archaeological Resource Preservation</p> <p>The County shall cooperate with cities, special districts, other appropriate organizations, including the Native American Heritage Commission, and private landowners to identify <u>known tribal cultural, archaeological, historical, and paleontological resources.</u> If necessary, the County shall engage in consultation with local tribes and preservation groups, to and preserve the county's <u>tribal cultural,</u></p> | <p>SU</p> |

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| | | <p>historical, paleontological, and archaeological <u>identified resources within the county.</u></p> <p><u>Policy COS-4.2b: Cooperation for Tribal Cultural Resource Preservation</u> <u>For discretionary projects, the County shall request local tribes contact information from Native American Heritage Commission, to identify known tribal cultural resources. If requested by one or more of the identified local tribes, the County shall engage in consultation with each local tribe to preserve, and determine appropriate handling of, identified resources within the county.</u></p> | |
| <p>Impact 4.5-4: Result in Grading and Excavation of Fossiliferous Rock or Increase Access Opportunities and Unauthorized Collection of Fossil Materials from Valuable Sites</p> | <p>PS</p> | <p>Mitigation Measure CUL-1a: Revised Policy COS-4.4: Discretionary Development and Cultural, Historical, Paleontological, and Archaeological Resource Preservation</p> <p>Mitigation Measure CUL-1b: New Implementation Program COS-X: Cultural Records Research</p> <p>Mitigation Measure CUL-1c: New Implementation Program COS-X: Cultural, Historical, Paleontological, and Archaeological Resource Assessment Procedures</p> <p>Mitigation Measure CUL-4: Revised Policy COS-4.1: Cultural, Historical, Paleontological, and Archaeological Resources Inventory</p> <p>Mitigation Measure CUL-5: Revised Policy COS-4.2: Cooperation for Cultural, Historical, Paleontological, and Archaeological Resource Preservation</p> <p>Mitigation Measure CUL-6: New Implementation Program COS-X: Implement Project-Level Security Measures The County shall include the following new implementation program in the 2040 General Plan.</p> <p><u>Implementation Program COS-X: Implement Project-Level Security Measures</u> <u>During project-level ground disturbance activities for discretionary development, in areas where paleontologically rich sites or tribal cultural resources are known to be present, project sites shall be secured during non-construction hours to ensure that the unauthorized access and the unlawful curation of fossil materials or tribal cultural resources does not occur. Such security measures may include construction fencing,</u></p> | <p>SU</p> |

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| | | <u>unauthorized access signage, security lighting, and security cameras. For large-scale development, a security plan may be prepared prior to construction activities to detail security measures and protocol for the project site.</u> | |
| Energy | | | |
| Impact 4.6-1: Result in the Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources or Conflict with or Impede State or Local Plans for Renewable Energy or Energy Efficiency | LTS | No mitigation is required for this impact. | LTS |
| Geologic Hazards | | | |
| Impact 4.7-1: Result in Development within a State of California–Earthquake Fault Zone designated by the Alquist-Priolo Earthquake Fault Zoning Act or a County–Designated Fault Hazard Area that Exposes People or Structures to Fault Rupture Hazards or Directly or Indirectly Causes Fault Rupture | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.7-2: Have Potential to Expose People or Structures to the Risk of Loss, Injury, or Death involving Ground-Shaking Hazards | N/A | No mitigation is required for this impact. | N/A |
| Impact 4.7-3: Result In Development Within a State of California Seismic Hazards Zone that Exposes People or Structures to Liquefaction Hazards or Directly or Indirectly Cause the Risk of Loss, Injury, or Death Involving Liquefaction | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.7-4: Result in Development that Exposes People or Structures to Landslide or Debris flow Hazards as a Result of Mapped Landslides, Potential Earthquake-Induced Landslide Zones, and Geomorphology of Hillside Terrain or Directly or Indirectly Cause Landslides | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.7-5: Result in Development that Exposes People or Structures to the Risk of Loss, Injury, or Death Involving Soil Expansion or Directly or Indirectly Cause Soil Expansion If Development Is Located within an Expansive Soils Hazard Zone or Where Soils with an Expansion Index Greater Than 20 is Present | LTS | No mitigation is required for this impact. | LTS |

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| <p>Impact 4.7-6: Result in Development that Expose People or Structures to the Risk of Loss, Injury, or Death Involving Subsidence or Directly or Indirectly Cause Subsidence If Development Is Located within a Subsidence Hazard Zone</p> | LTS | No mitigation is required for this impact. | LTS |
| <p>Greenhouse Gas Emissions</p> | | | |
| <p>Impact 4.8-1: Generate GHG Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment</p> | PS | <p>Mitigation Measure GHG-1: New Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential and New Commercial Development</p> <p>The County shall include the following new implementation program in the 2040 General Plan.</p> <p><u>Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential and New Commercial Development</u></p> <p><u>To support the proposed reach codes under COS-S, the 2040 General Plan shall include a new program in the Hazards and Safety element that prohibits the installation of new natural gas infrastructure in new residential development construction through amendments to the Ventura County Building Code. This program shall also be extended to include new commercial development building types such as including but not limited to offices, retail buildings, and hotels, where the use of natural gas is not critical to business operations and contain appliances that can be feasibility substituted with electricity powered equivalents. The County shall allow may exempt certain new commercial development to be exempt from these requirements where the County can make upon making findings based on substantial evidence that supports why the use of natural gas is critical to business operations, and that it is not feasible¹ to replace critical appliances or equipment with electricity powered equivalents. This program shall be completed no later than 2023.</u></p> <p><u>1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This</u></p> | SU |

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| | | <p><u>definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.</u></p> <p>Mitigation Measure GHG-2: New Implementation Program HAZ-X: Building Energy Saving Ordinance for Industrial Buildings</p> <p>The County shall include the following new implementation program in the 2040 General Plan.</p> <p><u>Implementation Program X: Building Energy Saving Ordinance for Industrial Buildings</u></p> <p><u>To address GHG emissions associated with electricity consumption by industrial buildings, which were not quantified in the GHG Inventory and Forecasting due to utility privacy rules, the County shall implement a program to adopt a Building Energy Saving Ordinance, no later than 2025, for industrial buildings over 25,000 square feet in size, modeled after the local benchmarking ordinances adopted in other local jurisdictions in California (CEC 2019). The County shall prepare reports showing the energy performance of industrial buildings relative to similar buildings in California and the United States and make these reports available to the public by request. The County, through the its building department shall provide recommendations on energy efficiency retrofits and green building strategies to improve energy performance to property owners and tenants subject to the reporting requirements.</u></p> <p>Mitigation Measure GHG-3: Do Not Include Implementation Program COS-EE in the 2040 General Plan</p> <p>The County shall not include Implementation Program COS-EE in the 2040 General Plan.</p> <p><u>Implementation Program COS-EE: Streamlining GHG Analysis for Projects Consistent with the General Plan.</u> Projects subject to environmental review under CEQA may be eligible for tiering and streamlining the analysis of GHG emissions, pursuant to CEQA Guidelines Section 15183.5, provided they incorporate applicable GHG reduction measures included in the GHG Strategy</p> | |

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| | | <p>contained in the General Plan and Program EIR. The County shall review such projects to determine whether the following criteria are met:</p> <ul style="list-style-type: none"> Proposed project is consistent with the current General Plan land use designation and applicable zoning designations for the project site; Proposed project incorporates all applicable GHG reduction measures (as documented in Appendix B to the General Plan and analyzed in the GHG Section of the Program EIR) into project design and/or as binding and enforceable mitigation measures in the project-specific CEQA document prepared for the project; and, Proposed project clearly demonstrates the method, timing and process for which the project will comply with applicable GHG reduction measures and/or conditions of approval. <p>The County may develop more specific tiering and streamlining tools or procedures, such as a consistency review checklist, or more detailed guidance for determining consistency with the GHG Strategy.</p> <p>Similarly, the County may incorporate appropriate elements of such guidance and procedures into the County's Initial Study Assessment Guidelines (ISAGs).</p> <p>Mitigation Measure GHG-4: New Implementation Program COS-X HAZ-X: Greenhouse Gas Reduction Policy Enhancement Program <u>and Revised Implementation Program COS-CC: Climate Emergency Council</u></p> <p>The County shall include the following new implementation program in the 2040 General Plan.</p> <p><u>Implementation Program COS-X HAZ-X: Greenhouse Gas Reduction Policy Enhancement Program</u></p> <p><u>The Climate Emergency Council (CEC) that would be established under COS-CC shall develop recommended subprograms which implement the 52 policies identified in Table 4.8-78 of the draft EIR that do not have associated implementation programs in the 2040 General Plan. Any recommendations that would require amendments to the General Plan, including any subprograms that may include expansions to programs already proposed in the 2040 General Plan, shall be provided to the County Planning Director. The Planning Director shall include the recommendation in a report for consideration by the Planning</u></p> | |

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| | | <p>Commission and Board of Supervisors. This report shall be presented to the Board of Supervisors.</p> <p><u>For any additional future policies that may be adopted as part of the County's Greenhouse Gas (GHG) Reduction Strategy (2040 General Plan, Policy COS-10.1), the CEC may recommend new subprograms. The CEC shall demonstrate in the materials submitted to the Board of Supervisors that the proposed subprograms and policies would result in quantifiable GHG emission reductions that further the County's progress towards achieving the 2030, 2040, and 2050 GHG reduction targets and goals established in the 2040 General Plan. The GHG emission reduction policy topics that may be considered and analyzed by the CEC for recommendation to the Board of Supervisors are identified in the Table 4.8-7 and include but are not limited to the following:</u></p> <ul style="list-style-type: none"> ▶ <u>Sustainable Technologies;</u> ▶ <u>Regional Bicycle Infrastructure;</u> ▶ <u>Funding and Maintenance for Sidewalks;</u> ▶ <u>Amtrak Service Improvements;</u> ▶ <u>Routine Use of Alternative Transportation Options;</u> ▶ <u>Permeable Pavement;</u> ▶ <u>Facilities for Emerging Technologies;</u> ▶ <u>Electric Vehicle Charging Stations;</u> ▶ <u>Neighborhood Electric Vehicles;</u> ▶ <u>Shared Mobility Operations;</u> ▶ <u>Sustainable Community Facility Design;</u> ▶ <u>Energy Efficient Facility Construction, Purchases, Leases, Retrofits, and Expansions;</u> ▶ <u>Agricultural Waste Reuse;</u> ▶ <u>Value-Added Alternatives to Waste Disposal;</u> ▶ <u>Smart Grid Development;</u> ▶ <u>Consistent Fire Protection Standards for New Development;</u> ▶ <u>Soil Productivity;</u> ▶ <u>Incentives for Energy Efficiency;</u> ▶ <u>Battery Energy Storage Systems;</u> ▶ <u>Air Pollutant Reduction;</u> ▶ <u>Air Pollution Impact Mitigation Measures for Discretionary Development;</u> ▶ <u>Transportation Control Measures Programs;</u> | |

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| | | <ul style="list-style-type: none"> ▶ <u>Alternative Transportation Modes;</u> ▶ <u>Urban Greening;</u> ▶ <u>Integrated Pest Management Practices;</u> ▶ <u>Technological Innovation; and</u> ▶ <u>Renewable Energy Facilities.</u> <p><u>The CEC's recommended GHG reduction subprograms and policies shall be presented to the Planning Commission for review and recommendation to the Board of Supervisors, and then to the Board of Supervisors for consideration and approval, no later than 2025. The Board of Supervisors shall have sole authority to adopt (including as modified) and direct the County's implementation of the subprograms and policies that are developed and recommended by the CEC. Any CEC recommendation that would require amendments to the 2040 General Plan, County ordinances, policies or regulations shall be processed and approved by the County in accordance with all applicable legal requirements.</u></p> <p>Any recommendations that would require amendments to the General Plan, including any subprograms that may include expansions to programs already proposed in the 2040 General Plan, shall be provided to the County Planning Director. The Planning Director shall include the recommendation in a report for consideration by the Planning Commission and Board of Supervisors. This report shall be presented to the Board of Supervisors by 2025.</p> <p><u>The County shall also include the following revised implementation program in the 2040 General Plan.</u></p> <p><u>Implementation Program COS-CC: Climate Emergency Council</u> <u>The County shall establish a Climate Emergency Council (CEC) by a resolution of the Board of Supervisors to advise the Board of Supervisors on climate action planning and implementation of the Climate Action Plan (CAP) goals, policies, and programs.</u></p> <p><u>The County agency or department responsible for implementation of this program shall draft, administer, and maintain the CEC bylaws. Initial</u></p> | |

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| | | <p><u>establishment of the CEC and its bylaws shall include the following terms, duties, and membership composition:</u></p> <p><u>Term of each member is two years. At the conclusion of a term, a CEC member may be re-appointed or re-selected, as applicable, for a consecutive term by the appointing authority.</u></p> <p><u>Duties of the CEC members include attendance at duly called meetings; review, in advance, of all written material provided in preparation for CEC meetings; serve and participate on committees and/or sub-committees; and contribute to the CEC's advisory recommendations to the Board of Supervisors;</u></p> <p><u>The officers of the CEC shall be Chairperson and Vice-Chairperson.</u></p> <p><u>Officers shall be elected annually at regular meeting each year by CEC members. Nomination shall be made from the floor. Election shall be by simple majority.</u></p> <p><u>Officers shall serve a one-year term. An officer may be re-elected, but no individual shall serve more than three full consecutive terms in the same office. No member shall hold more than one office at a time.</u></p> <p><u>The Chairperson shall preside at all meetings of the CEC, sign all correspondence, reports, and other materials produced by the CEC, and perform any and all other duties prescribed by the CEC from time to time. The Chairperson may serve as an ex-officio member of all committees.</u></p> <p><u>The Vice-Chairperson shall represent the Chairperson and/or substitute in performance of the Chairperson during their absence.</u></p> <p><u>Membership of the CEC shall be comprised of the following:</u></p> <p><u>One person representing each Supervisorial District who has demonstrated interest in and knowledge of climate action planning shall be nominated by each of the five members of the Board of Supervisors.</u></p> | |

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| | | <p><u>and confirmed by a majority of the Board of Supervisors resulting in a total of five Supervisorial District representatives;</u></p> <p><u>One resident from each of the designated disadvantaged communities identified in the 2040 General Plan who has demonstrated an understanding of their community's needs as well as an interest in and knowledge of climate action planning shall be appointed by a majority of the Board of Supervisors; and</u></p> <p><u>Two additional at-large members who have demonstrated special interest, competence, experience, or knowledge in climate action planning shall be selected by a majority of the CEC members.</u></p> <p><u>Each member is entitled to one vote on each matter submitted to a vote of the CEC.</u></p> <p>Mitigation Measure CTM-1: New Implementation Program CTM-X: Interim VMT CEQA Assessment Criteria</p> <p>Mitigation Measure CTM-2: Revised Implementation Program CTM-B: Initial Study Assessment Guidelines</p> <p>Mitigation Measure CTM-3: Revised Implementation Program CTM-C: Vehicle Miles Traveled (VMT) Reduction Program</p> | |

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| <p>Impact 4.8-2: Conflict with an Applicable Plan, Policy, or Regulation for the Purpose of Reducing the Emissions of GHGs</p> | <p>PS</p> | <p>Mitigation Measure GHG-1: New Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development Mitigation Measure GHG-2: New Implementation Program HAZ-X: Building Energy Saving Ordinance for Industrial Buildings Mitigation Measure GHG-3: Do Not Include Implementation Program COS-EE in the 2040 General Plan Mitigation Measure GHG-4: New Implementation Program HAZ-X: Greenhouse Gas Reduction Policy Enhancement Program Mitigation Measure CTM-1: New Implementation Program CTM-X: Interim VMT CEQA Assessment Criteria Mitigation Measure CTM-2: Revised Implementation Program CTM-B: Initial Study Assessment Guidelines Mitigation Measure CTM-3: Revised Implementation Program CTM-C: Vehicle Miles Traveled (VMT) Reduction Program</p> | <p>SU</p> |
| <p>Hazards, Hazardous Materials, and Wildfire</p> | | | |
| <p>Impact 4.9-1: Create a Significant Hazard to the Public or the Environment Through the Routine Transport, Use, or Disposal of Hazardous Materials or Hazardous Waste</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Impact 4.9-2: Create a Significant Hazard to the Public or the Environment Through the Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials or Hazardous Waste into the Environment</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Impact 4.9-3: Emit Hazardous Emissions or Handle Hazardous Materials Within One-Quarter Mile of an Existing or Proposed School</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Impact 4.9-4: Create a Significant Hazard Due to Location on a Site Which is Included on a List of Hazardous Materials Sites</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Impact 4.9-5: Locate Inconsistent Land Uses Within the Sphere of Influence of Any Airport, or Otherwise Result in a Safety Hazard to People Residing or Working Near an Airport</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |

Table 2-4 Summary of Impacts and Mitigation Measures

| Impacts | Significance Before Mitigation | Mitigation Measures | Significance with Mitigation Measures |
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| <p>Impact 4.9-6: Expose People to Risk of Wildfire by Locating Development in a High Fire Hazard Area/Fire Hazard Severity Zone or Substantially Impairing an Adopted Emergency Response Plan or Evacuation Plan or Exacerbate Wildfire Risk</p> | PS | <p>No additional feasible mitigation is available for this impact beyond the policies and implementation programs of the 2040 General Plan. Refer to Impact 4.9-6 in Section 4.9 Hazards, Hazardous Materials, and Wildfire for explanation.</p> | SU |
| <p>Hydrology and Water Quality</p> | | | |
| <p>Impact 4.10-1: Directly or Indirectly Decrease the Net Quantity of Groundwater in a Groundwater Basin That Is Overdrafted or Create an Overdrafted Groundwater Basin</p> | LTS | <p>No mitigation is required for this impact.</p> | LTS |
| <p>Impact 4.10-2: Result in Net Groundwater Extraction That Causes Overdrafted Basins in Groundwater Basins That Are Not Overdrafted or Are Not in Hydrologic Continuity with an Overdrafted Basin</p> | LTS | <p>No mitigation is required for this impact.</p> | LTS |
| <p>Impact 4.10-3: Result in Any Increase in Groundwater Extraction in Areas Where the Groundwater Basin and/or Hydrologic Unit Condition Is Not Well Known or Documented and There Is Evidence of Overdraft Based upon Declining Water Levels in a Well or Wells</p> | LTS | <p>No mitigation is required for this impact.</p> | LTS |
| <p>Impact 4.10-4: Degrade the Quality of Groundwater and Cause Groundwater to Exceed Groundwater Quality Objectives Set by the Applicable Basin Plan</p> | LTS | <p>No mitigation is required for this impact.</p> | LTS |
| <p>Impact 4.10-5: Result in the Use of Groundwater, in Any Capacity, and Would Be Located within 2 Miles of the Boundary of a Former or Current Test Site for Rocket Engines</p> | LTS | <p>No mitigation is required for this impact.</p> | LTS |
| <p>Impact 4.10-6: Increase Surface Water Consumptive Use (Demand) in a Fully Appropriated Stream Reach, as Designated by SWRCB, or Where Unappropriated Surface Water Is Unavailable</p> | LTS | <p>No mitigation is required for this impact.</p> | LTS |
| <p>Impact 4.10-7: Increase Surface Water Consumptive Use (Demand) Including Diversion or Dewatering Downstream Reaches, Resulting in an Adverse Impact on One or More of the Beneficial Uses Listed in the Applicable Basin Plan</p> | LTS | <p>No mitigation is required for this impact.</p> | LTS |

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| Impact 4.10-8: Degrade the Quality of Surface Water, Causing It to Exceed the Water Quality Objectives Contained in the Applicable Basin Plan | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.10-9: Cause Stormwater Quality to Exceed Water Quality Objectives or Standards in the Applicable MS4 Permit or Any Other NPDES Permits | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.10-10: Be Located within 10 to 20 Feet of Vertical Elevation from an Enclosed Body of Water Such as a Lake or Reservoir, Resulting in a Seiche Hazard | N/A | No mitigation is required for this impact. | N/A |
| Impact 4.10-11: Be Located within about 10–20 Feet of Vertical Elevation from an Enclosed Body of Water Such as a Lake or Reservoir, Resulting in a Seiche Hazard | N/A | No mitigation is required for this impact. | N/A |
| Impact 4.10-12: Result in Erosion, Siltation, or Flooding Hazards | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.10-13: Be Located in a Mapped Area of Flood Hazards | N/A | No mitigation is required for this impact. | N/A |
| Impact 4.10-14: Impact Flood Control Facilities and Watercourses by Obstructing, Impairing, Diverting, Impeding, or Altering the Characteristics of the Flow of Water, Resulting in Exposing Adjacent Property and the Community to Increased Risk of Flood Hazards | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.10-15: Result in Conflicts With the Ventura County Watershed Protection District's Comprehensive Plan Through Potential Deposition of Sediment and Debris Materials within Existing Channels and Allied Obstruction of Flow; Overflow of Channels during Design Storm Conditions; and Increased Runoff and the Effects on Areas of Special Flood Hazard and Regulatory Channels Both On- and Off-Site, for Projects Not Located within the Ventura County Watershed Protection District's Comprehensive Plan | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.10-16: Result in Noncompliance with Building Design and Construction Standards Regulating Flow to and from Natural and Man-Made Drainage Channels | LTS | No mitigation is required for this impact. | LTS |

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| Impact 4.10-17: Be Designed to Meet All Applicable Requirements for Onsite Wastewater Treatment Systems | LTS | No mitigation is required for this impact. | LTS |
| Land Use and Planning | | | |
| Impact 4.11-1: Result in Physical Development That Is Incompatible With Land Uses, Architectural Form Or Style, Site Design/Layout, Or Density/Parcel Sizes Within Existing Communities | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.11-2: Result in Physical Development That Would Divide An Established Community | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.11-3: Cause an Environmental Impact Due To A Conflict With A Regional Plan, Policy, or Program | LTS | No mitigation is required for this impact. | LTS |
| Mineral and Petroleum Resources | | | |
| Impact 4.12-1: Result in Development on or Adjacent to Existing Mineral Resources Extraction Sites or Areas Where Mineral Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Extraction of the Resources | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.12-2: Result in the Loss of Availability of a Known Mineral Resource That Would Be of Value to the Region and the Residents of the State | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.12-3: Result in Development on or Adjacent to Existing Petroleum Resources Extraction Sites or Areas Where Petroleum Resources Are Zoned, Mapped, or Permitted for Extraction, Which Could Hamper or Preclude Access to the Resources | PS | <p>Mitigation Measure PR-1: Revised Policy COS-7.2: Oil Well Distance Criteria The County shall include the following revised policy in the 2040 General Plan.</p> <p>COS-7.2: Oil Well Distance Criteria The County shall require that new discretionary oil and gas wells to be located be sited a minimum of 1,500 feet from the well head to residential dwellings dwelling units and 2,500 from any school sensitive use structures which include dwellings, childcare facilities, hospitals, health clinics, and school property lines.</p> | SU |

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| <p>Impact 4.12-4: Result in the Loss of Availability of a Known Petroleum Resource That Would Be of Value to the Region and the Residents of the State</p> | <p>PS</p> | <p>Mitigation Measure PR-2: Revised Policy COS-7.7: Limited Conveyance for Oil and Produced Water The County shall include the following revised policy in the 2040 General Plan.</p> <p>Policy COS-7.7: Limited Conveyance for Oil and Produced Water The County shall require new discretionary oil wells to use pipelines to convey crude oil and produced water, <u>if feasible</u>¹; oil and produced water shall not be trucked. <u>Trucking of crude oil and produced water may only be allowed if the proponent demonstrates, subject to approval by the County, that conveying the oil and produced water via pipeline is infeasible.</u> In addition, trucking of crude oil and produced water is <u>allowed in cases of emergency and for testing purposes consistent with federal, state and local regulations.</u></p> <p><u>1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.</u></p> <p>Mitigation Measure PR-3: Revised Policy COS-7.8: Limited Gas Collection, Use, and Disposal The County shall include the following revised policy in the 2040 General Plan.</p> <p>Revised Policy COS-7.8: Limited Gas Collection, Use, and Disposal The County shall require that gases emitted from all new discretionary oil and gas wells be collected and used or removed for sale or proper disposal, <u>if feasible</u>¹. Flaring or venting shall <u>may only be allowed if the proponent demonstrates, subject to approval by the County, that conducting operations without flaring or venting is infeasible.</u> In addition, flaring or venting is allowed in cases of emergency or <u>and for testing purposes consistent with federal, State, and local regulations.</u></p> | <p>LTS</p> |

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| | | <p>1. <u>“Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.</u></p> | |
| <p>Noise and Vibration</p> | | | |
| <p>Impact 4.13-1: Expose Sensitive Receptors to Construction Noise Levels That Exceed Applicable Standards</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Impact 4.13-2: Expose New Sensitive Land Uses to Traffic Noise</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Impact 4.13-3: Expose Existing Sensitive Receptors to Traffic-Noise Increases</p> | <p>PS</p> | <p>Mitigation Measure NOI-1: New Policy HAZ-X: Implement Noise Control Measures for Traffic Noise The County shall include the following new policy in the 2040 General Plan. <u>Policy HAZ-X: Implement Noise Control Measures for Traffic Noise</u> <u>The County shall require noise control measures to be implemented along roadways for new discretionary development generating traffic noise if either of the following circumstances would exist:</u> <u>The discretionary development would result in traffic noise levels above a County noise compatibility standard stated in Policy HAZ-9.2 in an area where traffic noise levels, under existing conditions, do not exceed the County noise compatibility standard; or,</u> <u>The discretionary development would result in an increase in traffic noise levels of 3 dBA or greater in an area where traffic noise levels under existing conditions exceed a County noise compatibility standard stated in Policy HAZ-9.2.</u></p> | <p>SU</p> |

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| | | <p>Noise control measures may include increased vegetation, roadway pavement improvements and maintenance, and site and building design features. If such measures are not sufficient to reduce a new discretionary development's fair share of traffic-generated noise at sensitive receptors, a sound wall barrier may be constructed. All feasible¹ noise reduction measures shall be implemented to ensure the development's fair share of traffic-generated noise is reduced, consistent with Policy HAZ-9.2.</p> <p>1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.</p> | |
| Impact 4.13-4: Expose Noise-Sensitive Land Uses to Operational Stationary Noise That Exceeds Applicable Standards | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.13-5: Expose Noise-Sensitive Land Uses to Airport Noise That Exceeds the Standards in the Ventura County Airport Comprehensive Land Use Plan | N/A | No mitigation is required for this impact. | N/A |
| Impact 4.13-6: Expose Sensitive Receptors to Construction Vibration Levels That Exceed Applicable Standards | PS | <p>Mitigation Measure NOI-2: Revised Policy HAZ-9.2: Noise Compatibility Standards The County shall include the following revised policy in the 2040 General Plan.</p> <p>Policy HAZ-9.2: Noise Compatibility Standards The County shall review discretionary development for noise compatibility with surrounding uses. The County shall determine noise based on the following standards:</p> <ol style="list-style-type: none"> 1. New noise sensitive uses proposed to be located near highways, truck routes, heavy industrial activities and other relatively continuous noise sources shall incorporate noise control measures so that indoor noise | SU |

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| | | <p>levels in habitable rooms do not exceed Community Noise Equivalent Level (CNEL) 45 and outdoor noise levels do not exceed CNEL 60 or $L_{eq}1H$ of 65 dB(A) during any hour.</p> <ol style="list-style-type: none"> 2. New noise sensitive uses proposed to be located near railroads shall incorporate noise control measures so that indoor noise levels in habitable rooms do not exceed Community Noise Equivalent Level (CNEL) 45 and outdoor noise levels do not exceed L_{10} of 60 dB(A) 3. New noise sensitive uses proposed to be located near airports: <ol style="list-style-type: none"> a. Shall be prohibited if they are in a Community Noise Equivalent Level (CNEL) 65 <u>dB</u> or greater, noise contour; or b. Shall be permitted in the Community Noise Equivalent Level (CNEL) 60 <u>dB</u> to CNEL 65 <u>dB</u> noise contour area only if means will be taken to ensure interior noise levels of CNEL 45 <u>dB</u> or less. 4. New noise generators, proposed to be located near any noise sensitive use, shall incorporate noise control measures so that ongoing outdoor noise levels received by the noise sensitive receptor, measured at the exterior wall of the building, does not exceed any of the following standards: <ol style="list-style-type: none"> a. $L_{eq}1H$ of 55dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.; b. $L_{eq}1H$ of 50dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.; and c. $L_{eq}1H$ of 45dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m. 5. Construction noise <u>and vibration</u> shall be evaluated and, if necessary, mitigated in accordance with the Construction Noise Threshold Criteria and Control Measures <u>Plan</u> (Advanced Engineering Acoustics, November 2005). <p>Mitigation Measure NOI-3: New Implementation Program HAZ-X: Revise the Construction Noise Threshold Criteria and Control Plan The County shall include the following new implementation program in the 2040 General Plan.</p> | |

Implementation Program HAZ-X: Revise the Construction Noise Threshold Criteria and Control Plan

The County shall revise the Construction Noise Threshold Criteria and Control Plan within one year of 2040 General Plan adoption to consider all potential vibration-inducing activities and include various measures, setback distances, precautions, monitoring programs, and alternative methods to traditional construction activities with the potential to result in structural damage or excessive groundborne noise. Items that shall be addressed in the plan include, but are not limited to, the following:

Ground vibration-producing activities, such as pile driving and blasting, shall be limited to the daytime hours between 7:00 a.m. to 7:00 p.m. on weekdays or 9:00 a.m. to 7:00 p.m. on weekends and holidays.

If pile driving is used, pile holes shall be predrilled to the maximum feasible¹ depth to reduce the number of blows required to seat a pile.

All construction equipment on construction sites shall be operated as far away from vibration-sensitive sites as reasonably possible.

Earthmoving, blasting and ground-impacting operations shall be phased so as not to occur simultaneously in areas close to sensitive receptors, to the extent feasible.¹ The total vibration level produced could be significantly less when each vibration source is operated at separate times.

Minimum setback requirements for different types of ground vibration-producing activities (e.g., pile driving and blasting) for the purpose of preventing damage to nearby structures shall be established. Factors to be considered include the specific nature of the vibration producing activity (e.g., type and duration of pile driving), local soil conditions, and the fragility/resiliency of the nearby structures. Established setback requirements (i.e., 100 feet) can be breached if a project-specific, site specific analysis is conducted by a qualified geotechnical engineer or ground vibration specialist that indicates that no structural damage would occur at nearby buildings or structures.

Minimum setback requirements for different types of ground vibration producing activities (e.g., pile driving and blasting) for the purpose of preventing negative human response shall be established based on the specific nature of the vibration producing activity (e.g., type and duration of pile driving), local soil conditions, and the type of sensitive receptor. Established setback requirements (i.e., 300 feet) can be breached only if a project-specific, site-specific, technically adequate ground vibration study indicates that the buildings would not be exposed to ground vibration levels in excess of 80 VdB, and ground vibration

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| | | <p><u>measurements performed during the construction activity confirm that the buildings are not being exposed to levels in excess of 80 VdB.</u></p> <p><u>All vibration-inducing activity within the distance parameters described above shall be monitored and documented for ground vibration noise and vibration noise levels at the nearest sensitive land use and associated recorded data submitted to Ventura County so as not to exceed the recommended FTA levels.</u></p> <p><u>Alternatives to traditional pile driving (e.g., sonic pile driving, jetting, cast-in-place or auger cast piles, nondisplacement piles, pile cushioning, torque or hydraulic piles) shall be considered and implemented where feasible¹ to reduce vibration levels.</u></p> <p><u>1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.</u></p> | |
| <p>Impact 4.13-7: Expose Noise-Sensitive Land Uses to Railroad Noise and Vibration that Exceeds Applicable Standards</p> | <p>N/A</p> | <p>No mitigation is required for this impact.</p> | <p>N/A</p> |
| <p>Population and Housing</p> | | | |
| <p>Impact 4.14-1: Eliminate Three or More Existing Affordable Housing Units or Displace Substantial Numbers of People or Housing Units</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Impact 4.14-2: Induce Substantial Unplanned Population Growth</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |
| <p>Impact 4.14-3: Result in Low-Income Employment Opportunities that could Generate Demand for New Housing that Exceeds the County's Inventory of Land to Develop Low-Income Housing</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |

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| Public Services and Recreation | | | |
| Impact 4.15-1: Increase Demand for Law Enforcement and Emergency Services as a Result of Inadequate Security Measures | PS | Mitigation Measure PS-1: New Implementation Program PFS-X: Review Future Projects for Incorporation of Law Enforcement Security Measures and Emergency Services Access Need The County shall include the following new implementation program in the 2040 General Plan: <u>Implementation Program PFS-X: Review Future Projects for Incorporation of Law Enforcement Security Measures</u> <u>Future discretionary projects shall be reviewed by the County Sheriff's Department to determine whether the project includes adequate security measures and access so as not to exacerbate the need for new law enforcement/emergency services. Security measures considered adequate include but are not limited to: nighttime security lighting, cameras, alarms, fencing, window and door locks, private security patrols or special event security assistance, treatment of vulnerable surfaces with anti-graffiti coating or landscaping, removal of graffiti within a specified time period and/or other design measure to create defensible space.</u> | LTS |
| Impact 4.15-2: Require Expansion or Construction of New Facilities to Support Law Enforcement and Emergency Services | PS | No additional feasible mitigation is available for this impact beyond the mitigation measures identified throughout the draft EIR. Refer to Impact 4.15-2 in Section 4.15 Public Services and Recreation for explanation. | SU |
| Impact 4.15-3: Require Expansion or Construction of New Fire Protection Facilities and Services as a Result of Excessive Response Times, Project Magnitude, or Distance from Existing Facilities | PS | No additional feasible mitigation is available for this impact beyond the mitigation measures identified throughout the draft EIR. Refer to Impact 4.15-3 in Section 4.15 Public Services and Recreation for explanation. | SU |
| Impact 4.15-4: Require Expansion or Construction of New Public Libraries or Other Facilities to Meet New Demand or Address Overcrowding and Accessibility | PS | No additional feasible mitigation is available for this impact beyond the mitigation measures identified throughout the draft EIR. Refer to Impact 4.15-4 in Section 4.15 Public Services and Recreation for explanation. | SU |

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| <p>Impact 4.15-5: Require Expansion or Construction of New Parks and Recreation Facilities and Services or Cause Substantial Physical Deterioration of Parks and Recreation Facilities Because of Overuse</p> | <p>PS</p> | <p>No additional feasible mitigation is available for this impact beyond the mitigation measures identified throughout the draft EIR. Refer to Impact 4.15-5 in Section 4.15 Public Services and Recreation for explanation.</p> | <p>SU</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Transportation and Traffic</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Impact 4.16-1: Exceed VMT Thresholds</p> | <p>PS</p> | <p>Mitigation Measure CTM-1: New Implementation Program CTM-X: Interim VMT CEQA Assessment Criteria</p> <p>The County shall include the following new implementation program in the 2040 General Plan.</p> <p><u>Implementation Program CTM-X: Interim VMT CEQA Assessment Criteria</u> Following June 30, 2020 and prior to completion of Implementation Program CTM-B, all projects (not otherwise exempt from CEQA analysis) shall be evaluated for potential environmental impacts relative to VMT using the State's minimum reduction standards, as follows:</p> <table border="1"> <thead> <tr> <th>Project Type</th> <th>Measurement Unit</th> <th>Model Trip Types</th> <th>Minimum Criteria</th> <th>Baseline VMT</th> <th>Threshold VMT</th> </tr> </thead> <tbody> <tr> <td>Residential</td> <td>VMT/Capita</td> <td>Average of all Home Based Trip Types</td> <td>15% Reduction of Regional Average</td> <td>9.66</td> <td>8.21</td> </tr> <tr> <td>Office</td> <td>VMT/Employee</td> <td>Home Based Work Trips</td> <td>15% Reduction of Regional Average</td> <td>13.52</td> <td>11.49</td> </tr> <tr> <td>Industrial</td> <td>VMT/Employee</td> <td>Home Based Work Trips</td> <td>15% Reduction of Regional Average</td> <td>13.52</td> <td>11.49</td> </tr> <tr> <td>Retail</td> <td>Unincorporated VMT</td> <td>All Trip Types</td> <td>No Net Increase in Regional VMT</td> <td>7,500,249</td> <td>7,500,249</td> </tr> <tr> <td>Agriculture</td> <td>Unincorporated VMT</td> <td>All Trip Types</td> <td>No Net Increase in Regional VMT</td> <td>7,500,249</td> <td>7,500,249</td> </tr> <tr> <td>Infrastructure</td> <td>Unincorporated VMT</td> <td>All Trip Types</td> <td>No Net Increase in Regional VMT</td> <td>7,500,249</td> <td>7,500,249</td> </tr> </tbody> </table> | Project Type | Measurement Unit | Model Trip Types | Minimum Criteria | Baseline VMT | Threshold VMT | Residential | VMT/Capita | Average of all Home Based Trip Types | 15% Reduction of Regional Average | 9.66 | 8.21 | Office | VMT/Employee | Home Based Work Trips | 15% Reduction of Regional Average | 13.52 | 11.49 | Industrial | VMT/Employee | Home Based Work Trips | 15% Reduction of Regional Average | 13.52 | 11.49 | Retail | Unincorporated VMT | All Trip Types | No Net Increase in Regional VMT | 7,500,249 | 7,500,249 | Agriculture | Unincorporated VMT | All Trip Types | No Net Increase in Regional VMT | 7,500,249 | 7,500,249 | Infrastructure | Unincorporated VMT | All Trip Types | No Net Increase in Regional VMT | 7,500,249 | 7,500,249 | <p>SU</p> |
| Project Type | Measurement Unit | Model Trip Types | Minimum Criteria | Baseline VMT | Threshold VMT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Residential | VMT/Capita | Average of all Home Based Trip Types | 15% Reduction of Regional Average | 9.66 | 8.21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Office | VMT/Employee | Home Based Work Trips | 15% Reduction of Regional Average | 13.52 | 11.49 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Industrial | VMT/Employee | Home Based Work Trips | 15% Reduction of Regional Average | 13.52 | 11.49 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retail | Unincorporated VMT | All Trip Types | No Net Increase in Regional VMT | 7,500,249 | 7,500,249 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Agriculture | Unincorporated VMT | All Trip Types | No Net Increase in Regional VMT | 7,500,249 | 7,500,249 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infrastructure | Unincorporated VMT | All Trip Types | No Net Increase in Regional VMT | 7,500,249 | 7,500,249 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Table 2-4 Summary of Impacts and Mitigation Measures

| Impacts | Significance Before Mitigation | Mitigation Measures | | | | | | Significance with Mitigation Measures |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------|--------------------|----------------|---------------------------------|-----------|-----------|---------------------------------------|
| NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable N/A = discussion is provided for information purposes only and is neither required by CEQA nor subject to its requirements | | | | | | | | |
| | | All Other Project Types | Unincorporated VMT | All Trip Types | No Net Increase in Regional VMT | 7,500,249 | 7,500,249 | |
| <p>If a proposed project is found to have a significant impact on VMT, the impact must be reduced, as feasible,¹ by modifying the project's VMT to a level below the established thresholds of significance and/or mitigating the impact through multimodal transportation improvements or mitigations to enhance transportation mode shift (use of alternative transportation modes). Following completion and adoption of VMT thresholds as part of the Ventura County ISAG, this implementation program shall no longer apply.</p> <p>1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.</p> <p>Mitigation Measure CTM-2: Revised Implementation Program CTM-B: Initial Study Assessment Guidelines The County shall include the following revised implementation program in the 2040 General Plan.</p> <p>Implementation Program CTM-B: Initial Study Assessment Guidelines The County shall update and adopt its' Initial Study Assessment Guidelines (ISAG) <u>no later than 2025</u> to address Vehicle Miles Traveled (VMT) and safety metrics pursuant to CEQA Guidelines Section 15064.3. This program shall consider inclusion of the following components:</p> <ul style="list-style-type: none"> ▶ <u>Establishment of screening criteria to define projects not required to submit detailed VMT analysis, such as infill projects, inclusion of</u> | | | | | | | | |

Table 2-4 Summary of Impacts and Mitigation Measures

| Impacts | Significance Before Mitigation | Mitigation Measures | Significance with Mitigation Measures |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| <p>NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable N/A = discussion is provided for information purposes only and is neither required by CEQA nor subject to its requirements</p> | | | |
| | | <p>locally serving commercial, transit supportive projects, or transportation enhancements that reduce VMT;</p> <ul style="list-style-type: none"> ▶ <u>Establishment of thresholds of significance for identifying VMT related transportation impacts (to meet or exceed State requirements; at minimum the thresholds will be equivalent to the threshold values for different project types identified in Mitigation Measure CTM-1);</u> ▶ <u>Standard mitigation measures for significant transportation impacts; and</u> ▶ <u>Specify the County's procedures for reviewing projects with significant and unavoidable impacts, under CEQA, related to VMT.</u> <p>Mitigation Measure CTM-3: Revised Implementation Program CTM-C: Vehicle Miles Traveled (VMT) Reduction Program The County shall include the following revised implementation program in the 2040 General Plan.</p> <p>Implementation Program CTM-C: Vehicle Miles Traveled (VMT) Reduction Program To support climate change related goals and CEQA related VMT policies pursuant to SB 743 (2013), the County shall develop a VMT Reduction Program <u>no later than 2025. This program should will contain a range of project- and program-level mitigations measures and VMT reduction strategies, that could include:</u></p> <ul style="list-style-type: none"> ▶ <u>Preparation of a Transportation Demand Management (TDM) program to promote mode shifts from single occupant vehicle use to transit, ridesharing, active transportation, telecommuting, etc.; and,</u> ▶ <u>Transportation System Management applications such as park-and-ride lots, intelligent transportation system (ITS) field deployment, pavement management, etc.</u> <p><u>This program shall identify measures to achieve an additional five percent overall reduction in VMT by 2030, and 10 percent by 2040 (relative to 2030 and 2040 business as usual scenarios, respectively). During implementation of the 2040 General Plan, the County shall will review and update the VMT Reduction Program as warranted to provide</u></p> | |

Table 2-4 Summary of Impacts and Mitigation Measures

| Impacts | Significance Before Mitigation | Mitigation Measures | Significance with Mitigation Measures |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| <p>NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable N/A = discussion is provided for information purposes only and is neither required by CEQA nor subject to its requirements</p> | | | |
| <p>Impact 4.16-2: Transportation Infrastructure Needed to Accommodate Growth Would Result in Adverse Effects Related to County Road Standards and Safety</p> | <p>PS</p> | <p>additional mitigation measures and programs that achieve meet these levels of VMT reduction.</p> <p>Mitigation Measure CTM-4: New Implementation Program CTM-X: Updated Traffic Impact Fee Mitigation Program</p> <p>The County shall include the following new implementation program in the 2040 General Plan.</p> <p><u>Implementation Program CTM-X: Updated Traffic Impact Fee Mitigation Program</u></p> <p><u>The County shall require that discretionary development which adds traffic to roadways traversing within a County designated substandard roadway impact area contribute the fair share cost of any safety counter-measures that improve the safety of the impacted roadways by paying the applicable fees under the County's Traffic Impact Fee Mitigation program prior to the issuance of Zoning Clearance.</u></p> | <p>SU</p> |
| <p>Impact 4.16-3: Result in Inadequate Emergency Access</p> | <p>PS</p> | <p>Mitigation Measure CTM-5: New Policy CTM-X: Emergency Access</p> <p>The County shall include the following new policy in the 2040 General Plan.</p> <p><u>Policy CTM-X: Emergency Access</u></p> <p><u>The County shall ensure that all new discretionary projects are fully evaluated for potential impacts to emergency access. Mitigation of these impacts shall be handled on a project-by-project basis to guarantee continued emergency service operations and service levels.</u></p> <p>Mitigation Measure CTM-6: New Implementation Program CTM-X: Emergency Access Maintenance</p> <p>The County shall include the following new implementation program in the 2040 General Plan.</p> <p><u>Implementation Program CTM-X: Emergency Access Maintenance</u></p> <p><u>The County shall plan capital improvements needed to provide transportation infrastructure that is maintained and/or upgraded to provide appropriate emergency access.</u></p> | <p>SU</p> |

Table 2-4 Summary of Impacts and Mitigation Measures

| Impacts | Significance Before Mitigation | Mitigation Measures | Significance with Mitigation Measures |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| <p style="text-align: center;"> NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable N/A = discussion is provided for information purposes only and is neither required by CEQA nor subject to its requirements </p> | | | |
| Impact 4.16-4: Conflict With Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle, or Pedestrian Facilities, or Otherwise Decrease the Performance or Safety of Such Facilities | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.16-5: Substantially Interfere with Railroad Facility Integrity and/or Operations | PS | Mitigation Measure CTM-7: New Policy CTM-X: Railroad Safety Assessment The County shall include the following new policy in the 2040 General Plan. Policy CTM-X: Railroad Safety Assessment <u>The County shall require that all new discretionary development is evaluated for potential impacts to existing railroad facilities and operations and identify appropriate mitigation measures, as warranted therein.</u> | LTS |
| Impact 4.16-6: Substantially Interfere with or Compromise the Operations or Integrity of an Existing Pipeline | LTS | No mitigation is required for this impact. | LTS |
| Utilities | | | |
| Impact 4.17-1: Cause a Disruption or Rerouting of an Existing Utility Facility | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.17-2: Increase Demand on a Utility that Results in the Relocation or Construction of New, or Expansion of Existing Water, Wastewater, Electric Power, Natural Gas, or Telecommunications Infrastructure, Resulting in the Potential for Significant Environmental Impacts | PS | No additional feasible mitigation is available for this impact beyond the mitigation measures identified throughout the draft EIR. Refer to Impact 4.17-2 in Section 4.17, "Utilities," for explanation. | SU |
| Impact 4.17-3: Result in Inadequate Wastewater Treatment Capacity to Serve Future Demand, in Addition to the Provider's Existing Commitments | LTS | No mitigation is required for this impact. | LTS |
| Impact 4.17-4: Result in Development That Would Adversely Affect Water Supply Quantities during Normal, Single-Dry, and Multiple-Dry Years | PS | Mitigation Measure UTL-1: New Implementation Program WR-X: Demonstrate Adequate Water Supply during Normal, Single-Dry, and Multiple-Dry Years The County shall include the following new implementation program in the 2040 General Plan. Implementation Program WR-X: Demonstrate Adequate Water Supply during Normal, Single-Dry, and Multiple-Dry Years <u>Water-demand projects (as defined in Section 15155 of the State CEQA Guidelines) that require service from a public water system shall prepare a water supply assessment prior to project approval. If the projected water</u> | SU |

Table 2-4 Summary of Impacts and Mitigation Measures

| Impacts | Significance Before Mitigation | Mitigation Measures | Significance with Mitigation Measures |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| <p>NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable N/A = discussion is provided for information purposes only and is neither required by CEQA nor subject to its requirements</p> | | | |
| | | <p><u>demand associated with the project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment must address the public water system's total projected water supplies available during normal, single-dry, and multiple-dry water years for a 20-year projection. The assessment shall describe if the new water service will be sufficiently met under this 20-year projection. The water supply assessment shall be prepared to the satisfaction of and approved by the governing body of the affected public water system and the County. If, as a result of its assessment, the public water system concludes that its water supplies are, or will be, insufficient, the public water system shall provide to the County its plans for acquiring additional water supplies. A water-demand project that includes a new water service from a public water system shall not be approved unless adequate water supplies are demonstrated.</u></p> | |
| <p>Impact 4.17-5: Result in a Direct or Indirect Adverse Effect on a Landfill's Disposal Capacity, Such That It Reduces Its Useful Life to Less Than 15 Years</p> | <p>LTS</p> | <p>No mitigation is required for this impact.</p> | <p>LTS</p> |

3.3 REVISIONS TO CHAPTER 3: PROJECT DESCRIPTION

No revisions have been made to this chapter of the draft EIR.

3.4 REVISIONS TO CHAPTER 4: ENVIRONMENTAL IMPACT ANALYSIS

No revisions have been made to this section of the draft EIR.

3.5 REVISIONS TO SECTION 4.1: AESTHETICS, SCENIC RESOURCES, AND LIGHT POLLUTION

No revisions have been made to this section of the draft EIR.

3.6 REVISIONS TO SECTION 4.2: AGRICULTURE AND FORESTRY RESOURCES

Mitigation Measure AG-2 has been revised to (1) exempt farmworker housing projects from the requirements Mitigation Measure AG-2; (2) reduce the farmland mitigation ratio from 2:1 to 1:1, and (3) require the deposit of funds to the County to contract with a qualified third-party agricultural economic consultant to review and advise the Planning Division and Agricultural Commissioner regarding the establishment and implementation of the agricultural conservation easement(s). The term “offsite” has also been clarified in the mitigation measure. The revised mitigation measure is as follows:

Implementation Program AG-X: Establish an Agricultural Conservation Easement
Applicants for discretionary projects that would result in direct or indirect loss of Important Farmland in exceedance of the acreage loss thresholds listed in the table below shall be required to ensure the permanent protection of offsite farmland of equal quality at a 1:1 ratio (acres preserved: acres converted) through the establishment of an offsite agricultural conservation easement. “Offsite” means an area that is outside of the project’s permit boundaries if applicable, would not be disturbed by the project with respect to agricultural soils or production, and that otherwise complies with the below-stated requirements. Discretionary projects to develop and provide housing for use by farmworkers and their families are not subject to this agricultural conservation easement requirement.

| <u>General Plan Land Use Designation</u> | <u>Important Farmland Inventory Classification</u> | <u>Acres Lost</u> |
|------------------------------------------|----------------------------------------------------|-------------------|
| <u>Agricultural</u> | <u>Prime/ Statewide</u> | <u>5</u> |
| | <u>Unique</u> | <u>10</u> |
| | <u>Local</u> | <u>15</u> |
| <u>Open Space/Rural</u> | <u>Prime/ Statewide</u> | <u>10</u> |
| | <u>Unique</u> | <u>15</u> |
| | <u>Local</u> | <u>20</u> |
| <u>All Land Use Designations</u> | <u>Prime/ Statewide</u> | <u>20</u> |
| | <u>Unique</u> | <u>30</u> |
| | <u>Local</u> | <u>40</u> |

If the Planning Division, in consultation with the Agricultural Commissioner, determines that a discretionary project would result in direct or indirect loss of Important Farmland in exceedance of the acreage loss thresholds listed in the table above, the project applicant shall prepare and submit a report for the review and approval of the Planning Division in consultation with the Agricultural Commissioner which identifies a minimum of one proposed potential mitigation site suitable for ensuring the permanent protection of offsite farmland of equal quality at a 2:1 ratio (acres preserved: acres converted) through the establishment of ~~an~~ one or more offsite agricultural conservation easements. The preservation of more than one site agricultural conservation easement may be considered in order to meet the required number of acres. The applicant shall also deposit funds with the County to contract with a qualified third-party agricultural economic consultant to review and advise the Planning Division and Agricultural Commissioner regarding the establishment and implementation of the agricultural conservation easement(s). The contents of the report shall be determined, reviewed, and approved by the Planning Division in consultation with the Agricultural Commissioner (hereafter referred to as the “reviewing agencies”), and shall include information necessary for the reviewing agencies and a qualified entity responsible for holding the conservation easement (e.g., a land trust organization) to determine the viability of the proposed mitigation site(s) for the establishment of a permanent agricultural conservation easement.

Among the factors necessary for approval by the reviewing agencies, the proposed mitigation site(s) shall be located in the County of Ventura unincorporated area, must not already have permanent protection, ~~and~~ must be equivalent to or greater than the type of Important Farmland (e.g., Unique farmland) that would be converted by the project, and must be of sufficient size to be viable for long term farming use as determined by the County. Among other terms that may be required by the reviewing agencies in consultation with a qualified entity, the terms of an agricultural conservation easement shall include a requirement that it run with the land. There must also be a provision for annual monitoring by the qualified entity or its representative to ensure adherence to the terms of the conservation easement. Project applicants are responsible for all costs incurred by the County and the qualified entity to successfully implement this mitigation measure. Proof of the successful establishment of an agricultural conservation easement shall be provided to the Planning Division prior to issuance of a zoning clearance for inauguration of the project.

3.7 REVISIONS TO SECTION 4.3: AIR QUALITY

The text of Mitigation Measures AQ-1a and AQ-1b have been revised in the final EIR to include a definition for the term “feasible.” Additionally, Mitigation Measure AQ-1b has been revised for consistency with the Ventura County Air Pollution Control District’s recommendation that measures to reduce construction-related emissions be incorporated into every project requiring discretionary County approval as explained in response to comment A14-2. Revisions made to Mitigation Measures AQ-1a and AQ-1b are provided below.

Mitigation Measure AQ-1a: New Policy HAZ-X: Construction Air Pollutant Best Management Practices
The County shall include the following new Policy HAZ-X in the 2040 General Plan.

Policy HAZ-X: Construction Air Pollutant Best Management Practices

Discretionary development projects that will generate construction-related air emissions shall be required by the County to incorporate best management practices (BMPs) to reduce emissions. These BMPs shall include the measures recommended by VCAPCD in its Air Quality Assessment Guidelines or otherwise to the extent applicable to the project.

~~The County shall ensure that discretionary development will, to the extent feasible, incorporate best management practices (BMPs) to reduce emissions to be less than applicable thresholds. These BMPs include but are not limited to the most recent VCAPCD recommendations for construction BMPs (per the Air Quality Assessment Guidelines or as otherwise identified by VCAPCD).~~

Mitigation Measure AQ-1b: New Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices

Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices

~~Applicants for future d~~Discretionary development projects that would will generate construction-related air emissions that exceed applicable thresholds, will shall be required to include, but are not limited to, the following types of emission reduction mitigation measures and potentially others, as recommended by VCAPCD (in its Air Quality Assessment Guidelines Guidance or otherwise), to the extent feasible and applicable to the project as determined by the County: The types of measures shall include but are not limited to: maintaining equipment per manufacturer specifications; lengthening construction duration to minimize number of vehicle and equipment operating at the same time during the summer months; use of Tier 3 at a minimum, or Tier 4 if commercially available diesel engines in all off-road construction diesel equipment, at a minimum; and, if feasible¹ using electric-powered or other alternative fueled equipment in place of diesel powered equipment (whenever feasible).

1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines section 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

Mitigation Measure AQ-2a on page 4.3-15 is revised as follows:

Mitigation Measure AQ-2a: New Policy HAZ-X: Fugitive Dust Best Management Practices

The County shall include the following new policy in the 2040 General Plan.

Policy HAZ-X: Fugitive Dust Best Management Practices

The County shall ensure that discretionary development which will generate fugitive dust emissions during construction activities will, to the extent feasible, incorporate appropriate BMPs that to reduce emissions to be less than applicable thresholds.

For clarification, Mitigation Measure AQ-2b on page 4.3-15 has been revised to remove the duplicative bullet point and for consistency with the Ventura County Air Pollution Control District's recommendation that measures to reduce construction-related fugitive dust be incorporated into every project requiring discretionary County approval:

Mitigation Measure AQ-2b: New Implementation Program HAZ-X: Fugitive Dust Best Management Practices

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program HAZ-X: Fugitive Dust Best Management Practices

Applicants for future d) Discretionary development projects that which will generate construction-related fugitive dust emissions that exceed applicable thresholds will shall be required by the County to include, but are not limited to, the types of mitigation dust reduction measures recommended by VCAPCD's in its Air Quality Assessment Guidelines, or otherwise, to the extent feasible and applicable such as:

- ~~▶ The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excess amounts of dust.~~
- ▶ The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excess amounts of dust.
- ▶ Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of watering (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities.
- ▶ Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:
 - All trucks shall be required to cover their loads as required by California Vehicle Code Section 23114.
 - All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally-safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible.

- ▶ Graded and/or excavated inactive areas of the construction site shall be monitored by (indicate by whom) at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally-safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally-safe dust suppressants, to prevent excessive fugitive dust.
- ▶ Signs shall be posted on-site limiting traffic to 15 miles per hour or less.
- ▶ During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard, either off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with VCAPCD when winds are excessive.
- ▶ Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.
- ▶ Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.

The County has added the following text to Impact 4.3-3 on page 4.3-17 to clarify and expand on the acute and chronic health impacts associated with emissions of ROG and NOX that exceed VCAPCD thresholds of significance:

As shown in Table 4.3-4, operational activities would result in emissions of ROG and NOX that exceed the VCAPCD thresholds of significance for both countywide and the Ojai Valley. As discussed in the “Thresholds of Significance” section, VCAPCD developed these thresholds in consideration of achieving and maintaining the NAAQS and CAAQS, which represent concentration limits of criteria air pollutants and precursors needed to adequately protect human health. ~~Therefore, the 2040 General Plan’s contribution to operational criteria air pollutants and precursors could result in greater acute or chronic health impacts compared to existing conditions.~~

The addition of ROG and NO_x, which are precursors to ozone, could result in an increase in ambient concentrations in Ventura County and, moreover, increase the likelihood that ambient concentrations exceed the CAAQS and NAAQS. As summarized in the January 2020 Background Report, human exposure to ozone may cause acute and chronic health impacts including coughing, pulmonary distress, lung inflammation, shortness of breath, and permanent lung impairment. Also, the increase in operational emissions of PM₁₀ could impede air quality planning efforts to bring Ventura County into attainment of the CAAQS for PM₁₀. However, it would be misleading to correlate the levels of criteria air pollutant and precursor emissions associated with implementation of the 2040 General Plan to specific health outcomes to sensitive receptors. While the description of the effects noted above could manifest in the recipient receptors, actual

effects on individuals depend on individual factors, such as life stage (e.g., older adults are more sensitive), preexisting cardiovascular or respiratory diseases, and genetic polymorphisms. Even armed with this type of specific medical information (which is confidential to the individual), there are wide ranges of potential health outcomes from exposure to ozone precursors and particulates, from no effect to the effects described above. Therefore, other than determining the types of health effects that could occur, it would be speculative to more specifically correlate exposure to ozone precursors and particulates from the 2040 General Plan to specific health outcomes to receptors. By evaluating emissions of air pollutants against VCAPCD's thresholds, it is foreseeable that health complications associated with ozone and PM₁₀ exposure could be exacerbated to nearby sensitive receptors by operational emissions.

To clarify the discussion provided in the draft EIR, the County has made the following revisions to the discussions of Policy HAZ-10.5 and HAZ-10.12 on page 4.3-18:

~~Policy~~ HAZ-10.5 states that the County shall work with applicants for discretionary development projects to incorporate measures to reduce air pollution impacts and greenhouse gas emissions, such as bike facilities, solar water heating, solar space heating, electric appliances and equipment, and zero and near-zero emission vehicles, and HAZ 10.12 would require that discretionary development with significant adverse air quality impacts only be approved if it is conditioned with all feasible reasonable mitigation measures to avoid, minimize or compensate for the impact.

To provide additional mitigation to reduce local toxic exposure from heavily traveled transportation corridors Mitigation Measure AQ-3 (page 4.3-22) is revised as follows:

Mitigation Measure AQ-3: New Policy HAZ-10.X: ~~Setback Requirements~~ Health Risk Assessments for Sensitive Land Uses Near Heavily Traveled Transportation Corridors

The County shall include the following new policy in the 2040 General Plan.

Policy HAZ-10.X: ~~Setback Requirements~~ Health Risk Assessments for Sensitive Land Uses Near Heavily Traveled Transportation Corridors

The County shall require discretionary development for land uses which that include sensitive receptors which are considered to be populations or uses that are more susceptible to the effects of air pollution than the general population, such as long-term health care facilities, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds are be located at least 500 1,000 feet from any freeway or urban road with traffic volumes that exceed 100,000 vehicles per day, or rural roads that exceed 50,000 vehicles per day. New sensitive receptor use structures can be located within 500 1,000 feet from a new or existing freeway or urban road with traffic volumes that exceed 100,000 vehicles per day, or rural road with traffic volumes that exceed 50,000 vehicles per day only if a project applicant first prepares a qualified, site-specific health risk assessment (HRA). The HRA shall be conducted in accordance with guidance from VCAPCD and approved by VCAPCD. If the HRA determines that a nearby sensitive receptor would be exposed to an incremental increase in cancer risk greater than 10 in 1 million, then design measures shall be incorporated to reduce the level of risk exposure to less than 10 in 1 million. No further action shall be required if the HRA demonstrates that the level of cancer risk would be less than 10 in 1 million.

Project design features that may be considered in an HRA may include, but are not limited to: installing air intakes furthest away from the heavily traveled transportation corridor; installing air filtration (as part of mechanical ventilation systems or stand-alone air cleaner); using air filtration devices rated MERV-13 or higher; requiring ongoing maintenance plans for building HVAC air filtration systems; limiting window openings and window heights on building sides facing the heavily traveled transportation corridor; or permanently sealing windows so they don't open on the side of the building facing the heavily traveled transportation corridor; and installing vegetative barriers, considering height and cover thickness, to create a natural buffer between sensitive receptors and the emissions source. For purposes of this policy, "sensitive receptors" means populations or uses that are more susceptible to the effects of air pollution than the general population such as long-term health care facilities, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds.

For clarification, the text on page 4.3-24 has been revised as shown below:

To deter ~~from~~ potential conflicts with existing agricultural land uses, as part of the Right to Farm ordinance, ~~the County is~~ buyers of real property are required to give notice of this ordinance to buyers of real property located in the county. The County also has a mediation process for any disputes involving agricultural land uses and issue opinions on whether certain agricultural land uses constitute a nuisance. The County's "Right to Farm" ordinance serves to mitigate issues regarding exposure of sensitive receptors to odors from agricultural land and operations while protecting agricultural land uses in the county. This ordinance would serve to protect agricultural lands in the county during implementation of the 2040 General Plan and mitigate issues regarding exposure of sensitive receptors to odors from agricultural land operation that may be considered a nuisance.

3.8 REVISIONS TO SECTION 4.4: BIOLOGICAL RESOURCES

For clarity, page 4.4-14 is revised as follows:

ISSUES NOT DISCUSSED FURTHER

Consistency with Adopted Habitat Conservation Plans

No habitat conservation plans or natural community conservation plans have been adopted within the plan area of the 2040 General Plan. There would be no impact due to conflict with conservation plans or natural community conservation plans. This issue is not discussed further.

For clarification, Section 4.4.2, "Environmental Impacts and Mitigation Measures," is revised to incorporate Policy WR-7.1 on page 4.4-17 (following the bullet, "Policy COS 9.3: Open Space Preservation"):

Conservation and Open Space Element

- ▶ **Policy WP-7.1: Water for the Environment.** The County encourage the appropriate agencies to effectively manage water quantity and quality to address long-term adequate availability of water for environmental purposes, including maintenance of

existing groundwater-dependent habitats and in-stream flows needed for riparian habitats and species protection. (IGC) [New Policy]

For clarification, page 4.4-20 of the draft EIR has been edited as follows:

The Rural land use designation would allow for low-density and low-intensity land uses such as residential uses and other rural uses which are maintained in conjunction with agricultural and horticultural uses or in conjunction with the keeping of farm animals for recreational purposes, such as greenhouses, principal and accessory structures related to agriculture, and also oil and gas wells, and would apply to approximately 0.9 percent of land in the unincorporated county.

For clarification, in response to public comments and to provide alignment with existing practices identified in the Initial Study Assessment Guidelines for the evaluation of discretionary development that could potentially impact sensitive biological resources Mitigation Measure BIO-1 beginning on page 4.4-23 is revised as follows:

Mitigation Measure BIO-1: New Implementation Program COS-X: Protection of Sensitive Biological Resources
The County shall include the following new implementation program in the 2040 General Plan.

~~**Implementation Program COS-X: Protection of Sensitive Biological Resources**~~

~~The County shall update the Initial Study Assessment Guidelines, Biological Resources Assessment report criteria to evaluate discretionary development that could potentially impact sensitive biological resources with the following:~~

~~The qualified biologist shall conduct an initial data review to determine the sensitive biological resources (i.e., special status plant, special status wildlife, sensitive habitats [e.g., riparian habitat, sensitive plant communities, ESHA, coastal beaches, sand dunes, other sensitive natural communities], wetlands and other non-wetland waters, native wildlife nursery sites, or wildlife corridors) that have the potential to occur within the project footprint. This will include but not be limited to review of the best available, current data including vegetation mapping data, mapping data from the County and California Coastal Commission, and database searches of the CNDDB and the CNPS Inventory of Rare and Endangered Plants of California.~~

~~The qualified biologist shall conduct a reconnaissance level survey for sensitive biological resources within the project footprint (including proposed access roads, proposed staging areas, and the immediate vicinity surrounding the project footprint) to determine whether sensitive biological resources identified during the initial data review have potential to occur.~~

~~If the reconnaissance level survey identifies no potential for sensitive biological resources to occur, the applicant will not be subject to additional mitigation measures.~~

~~If sensitive biological resources are observed or determined to have potential to occur within or adjacent to the project footprint during the reconnaissance level survey, then the following measures shall apply:~~

~~Special Status Species~~

~~If special status species are observed or determined to have potential to occur within or adjacent to the project footprint, a qualified biologist shall conduct focused or protocol level surveys for those species where established, current protocols are available (e.g., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018], Staff Report on Burrowing Owl Mitigation [CDFG 2012]). If an established protocol is not available for a special status species, then the qualified biologist will consult with the County, and CDFW or USFWS, to determine the appropriate survey protocol.~~

~~If special status species are identified during protocol level surveys, then the County shall require implementation of mitigation measures that fully account for the adversely affected resource. When feasible, mitigation measures should adhere to the following priority: avoid impacts, minimize impacts, and compensate for impacts.~~

~~If impacts on special status species are unavoidable, then the project proponent shall obtain incidental take authorization from USFWS or CDFW (e.g., for species listed under ESA or CESA) prior to commencing development of the project site, apply minimization measures or other conditions required under incidental take authorization, and shall compensate for impacts to special status species by acquiring or protecting land that provides habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of project implementation; generally at least a 1:1 ratio. Compensation may include purchasing credits from a USFWS or CDFW approved mitigation bank or restoring or enhancing habitat within the project site or outside of the project site.~~

~~Sensitive Habitats, Wetlands, Other Non-wetland Waters, Native Wildlife Nursery Sites, and Wildlife Corridors~~

~~If sensitive habitats, wetlands, other non-wetland waters, native wildlife nursery sites, and wildlife corridors are identified within or adjacent to the project footprint, these features shall be avoided, if feasible, by implementing no-disturbance buffers around sensitive habitats, wetlands, other non-wetland waters, or native wildlife nursery sites, and avoiding development within wildlife corridors or implementing project-specific design features (e.g., wildlife-friendly fencing and lighting) within wildlife corridors, such that direct and indirect adverse effects of project development are avoided.~~

~~A delineation of aquatic habitat within a project site (including waters of the United States and other waters including those under State jurisdiction) including identification of hydrology, hydric soils, and hydrophytic vegetation, by a qualified biologist may be required to identify the exact extent of wetlands or other water features identified within or adjacent to the project footprint.~~

~~If impacts to sensitive habitats, wetlands, other non-wetland waters, native wildlife nursery sites, and wildlife corridors cannot be avoided, then the project proponent shall obtain required regulatory authorization (e.g., Section 404 permits for impacts to waters of the United States, 401 water quality certification from the Regional Water Quality Control Board, a Streambed Alteration Agreement for impacts to aquatic or riparian habitats within CDFW jurisdiction under Fish and Game Code Section 1602, a coastal development permit for impacts to ESHA), and shall compensate for unavoidable losses of these resources. Compensation may include restoration of sensitive habitats, wetlands, other non-wetland waters, native wildlife nursery sites, and wildlife corridors within or outside of the project site, preserving the aforementioned resources through a conservation easement at a sufficient ratio to offset the loss of acreage and habitat function, or purchasing credits at an existing authorized mitigation bank or in lieu fee program. The County shall require restoration or compensation for loss of sensitive habitats, wetlands, other non-wetland waters, native wildlife nursery sites, and wildlife corridors at a minimum of a 1:1 ratio or "no net loss."~~

Implementation Program COS-X: Protection of Sensitive Biological Resources

For any future discretionary development project that could potentially impact sensitive biological resources, the project shall be evaluated pursuant to the methodology described in the Ventura County Initial Study Assessment Guidelines which shall be amended within one year of 2040 General Plan adoption to include the following:

A preliminary assessment of the project shall be completed by County staff, in consultation with a qualified biologist, using available mapped biological resource data and aerial imagery to determine if the project has the potential to impact sensitive biological resources in the defined impact area (direct and indirect impacts). County staff will determine if project conditions or mitigation measures can be developed and implemented that would reduce or avoid those impacts to a less than significant level without requiring a more comprehensive biological resource assessment, otherwise known as an Initial Study Biological Assessment. Examples of projects that would not require a biological resource assessment may include but are not limited to: Projects that occur in previously developed areas, if additional vegetation removal is not required or the use may not impact surrounding natural areas; or projects on land consisting of non-native grasslands totaling less than one acre that are completely surrounded by existing urban development (such as urban infill lots).

If County staff find that the project may adversely affect sensitive biological resources, then a County approved qualified biologist shall prepare a biological resource assessment to assess and mitigate the adverse impacts of the proposed project. The procedures detailed in Step 3 of the County of Ventura Initial Study Guidelines, Biological Resources Chapter, Methodology Section shall be followed to prepare this biological resource assessment.

The biological resource assessment shall be conducted by a County approved qualified biologist that meets the minimum qualifications for

biological consultants listed in Attachment 1 to the County of Ventura Initial Study Assessment Guidelines. The qualified biologist shall have expertise in the taxonomic group or species on which the surveys are focused as well as the County's data review procedures and survey methods recommended by natural resource agencies or commonly accepted standards in the taxonomic group, community, or species (e.g., California Native Plant Society survey protocols).

The biological field survey area will be determined by the County agency responsible for administering the project with consideration of recommendations from the qualified biologist. The survey area will include all areas of proposed disturbance, including associated equipment or personnel staging areas, and the surrounding area of potential sensitive biological resources that may be indirectly adversely affected by the project. The size of the survey area will be based on the characteristics of surrounding habitat, the potential for sensitive biological resources to occur, and the nature of the project. For example, an infill project within an already developed area may not require a large survey area; however, a development project adjacent to natural habitat may require a larger survey area based on the potential for disturbance. The procedure for delineating the size of the survey area will follow Step 1 of the County of Ventura Initial Study Guidelines, Biological Resources Chapter, Methodology Section.

Prior to conducting any field surveys, the qualified biologist shall conduct an initial data review to determine the type of sensitive biological resources that may occur within the survey area using the procedures detailed in Step 3 (a) of the County of Ventura Initial Study Guidelines, Biological Resources Chapter, Methodology Section. This will include but not be limited to review of the best available, current data including: vegetation mapping data, mapping data from the County (Locally Important Species, Habitat Connectivity and Wildlife Corridor, Water Protection District data, past biological reports in the area, etc.); National Wetland Inventory Database (NWI); USGS National Hydrographic Dataset; EcoAtlas; and database searches of the US Fish and Wildlife Service Critical Habitat, Environmental Conservation Online System (ECOS) and Information, Planning, and Conservation System (IPaC); California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB); and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California; Audubon Important Bird Areas and Red Lists, Xerces Society, etc.

Biological Inventory -Special Status Species, Sensitive Habitats, Wetlands, Other Non-wetland Waters, Native Wildlife Nursery Sites, and Wildlife Corridors

The biological inventory shall be conducted as detailed in Step 3 (b) Conduct Field Survey and (c) biological inventory, of the County of Ventura Initial Study Guidelines, Biological Resources Chapter, Methodology Section, which includes a general floristic survey of the project impact areas.

Vegetation communities within the survey area shall be inventoried using the CDFW vegetation classification standards (Manual of California Vegetation) and the most

recent version of CDFW vegetation mapping standards “Survey of California Vegetation Classification and Mapping Standards [CDFW, 2019].

If the initial data review shows a wetland or water occurring within 300 feet (in non-coastal zone) or 500 feet (in coastal zone) from the edge of the proposed disturbance areas, then a qualified biologist shall delineate the aquatic habitat (including waters of the United States and other waters including those under State jurisdiction). A summary of the type of aquatic habitat, primary water source, species diversity, connectivity to off-site habitat or other hydrological features, hydric soils, and hydrophytic vegetation, and the boundary of the feature (based upon the outermost limit of associated vegetation (canopy drip line or scrub line), hydric soils, bank and bed – whichever is greater) shall be included in the biological resource assessment.

If the initial data review indicates that sensitive biological resources have the potential to occur within the survey area, a qualified biologist shall conduct additional focused surveys for these species or other protected habitats using the most recently updated protocols recommended by natural resource agencies (e.g., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018], Staff Report on Burrowing Owl Mitigation [CDFG 2012]), or if not available, standards accepted in the professional biological community to survey that taxonomic group, community, or species. If an established protocol is not available for a special-status species then the qualified biologist will consult with the County, and CDFW or USFWS, to determine the appropriate survey protocol.

Mitigation for Special-Status Species, Sensitive Habitats, Wetlands, Other Non-wetland Waters, Native Wildlife Nursery Sites, and Wildlife Corridors

If a sensitive biological resource is identified during field surveys, then the County shall require implementation of mitigation measures at the project level that fully account for the adversely affected resource. To the maximum extent feasible, mitigation measures should adhere to the following priority to reduce adverse impacts of a proposed project to the resource: avoid impacts, minimize impacts, and compensate for impacts.

Mitigation measures shall be used on a project level basis and be tailored to on site conditions and sensitive biological resources present as follows:

- Priority 1. Avoid of Impacts: Proposed development shall avoid impacts to the maximum extent feasible by not taking certain actions or parts of an action. Projects shall be sited to avoid direct or indirect impacts on the resource, and include measures such as implementing no-disturbance buffers (e.g., nesting bird buffer areas during construction, siting staging areas outside buffer area), or implementing project-specific design features (e.g., wildlife-friendly fencing and lighting in a wildlife corridor), such that indirect adverse effects of project development are avoided.
- Priority 2. Minimize Impacts: Proposed development shall be conditioned to minimize adverse impacts by limiting the degree or magnitude of the action and its implementation to less than significant to the maximum extent feasible. Other

mitigation measures may include reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

Measures to mitigate the spread of invasive plant species and invasive wildlife species (e.g., New Zealand mudsnail) shall include but will not be limited to: cleaning of equipment, footwear, and clothing before entering a construction site and the identification and treatment of significant infestations of invasive plant species within a project site.

- Priority 3. Compensate for Impacts: Compensating for the impact can be done by replacing or providing substitute resources or by rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

Compensatory mitigation ratios for protected sensitive resources will be established based on the rarity of the resource, quality of affected habitat associated with the resource, temporary and permanent losses to habitat function, the type of mitigation proposed (restoration, enhancement, preservation, establishment), and other requirements associated with state or federal permits. Mitigation ratios will be determined at the project level in consultation with the County, the qualified biologist, and, where applicable, federal or state agencies with jurisdiction over the resource (e.g., CDFW, USACE, USFWS).

If impacts on a protected sensitive biological resource are unavoidable, then the project proponent shall mitigate for the type of resource as follows:

Endangered, Rare, Threatened, or Candidate Species: The applicant shall obtain incidental take authorization from USFWS (16 U.S. Code [U.S.C.] Section 1531 et seq.) or CDFW (California Fish and Game Code Sections 2050–2115.5) prior to commencing development of the project site, apply minimization measures or other conditions required under the incidental take authorization, and shall provide equivalent compensation for the unavoidable losses of these resources, generally at a minimum ratio of 1:1, or greater. Compensation may include purchasing credits from a USFWS- or CDFW-approved mitigation bank or restoring or enhancing habitat within the project site or outside of the project site.

Special-Status Species (includes Locally Important Species): The applicant shall provide equivalent compensation for impacts on special-status species by restoring or significantly enhancing existing habitat where the species occurs, acquiring or protecting land that provides habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of project implementation.

If impacts on sensitive habitats, wetlands, other non-wetland waters, riparian habitats, native wildlife nursery sites, and wildlife corridors cannot be avoided, then the project applicant shall:

Federal or State Protected Sensitive Habitats: Obtain the required regulatory authorization (e.g., Section 404 permits for impacts on waters of the United States, 401 water quality certification from the Regional Water Quality Control Board, a Streambed Alteration Agreement for impacts on aquatic or riparian habitats within

CDFW jurisdiction under Fish and Game Code Section 1602, a coastal development permit for impacts on ESHA), and provide equivalent compensation for the unavoidable losses of the above mentioned resources such that there is no net loss.

Other Protected Sensitive Habitats (includes locally important plant communities, sensitive natural communities, habitat connectivity and wildlife corridors, native wildlife nursery or overwintering sites): Provide compensation for other protected sensitive habitats which may include the restoration, enhancement, or preservation of the aforementioned habitats within or outside of the project site, or the purchasing of credits at an existing mitigation bank or in lieu fee program deemed acceptable by the County Planning Director.

All compensatory mitigation sites shall be protected in perpetuity through a conservation easement (if off-site), or deed restriction (or other comparable legal instrument) if on-site.

The County shall, in harmonizing the 2040 General Plan with the Ventura County Initial Study Assessment Guidelines, add definitions for the habitat types included in this mitigation measure, including which components are subject to compliance with the County's Local Coastal Program and Coastal Zoning Ordinance versus non-coastal areas.

1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

2. "Mitigation, No-Net-Loss" A principle where if a development project cannot avoid the loss of a valued natural resource, the project mitigates the impacts by replacing the impacted habitat with a newly created or restored habitat of the same size and similar functional condition so that there is no loss of ecological functions and values of that habitat type for a defined area. Similar functional condition means the relative ability to support and maintain the same species composition, diversity, and functional organization as the impacted habitat.

For clarification page 4.4-31 of the draft EIR has been edited as follows:

In addition to existing federal and State laws and permitting processes, the 2040 General Plan includes several policies and implementation programs that would further reduce potential impacts on wildlife corridors and native wildlife nursery sites and require project-level environmental review and mitigation for significant impacts (see "General Plan Update Policies and Implementation Programs," above). For example, Policies COS-1.1 and COS-1.2 address the protection and consideration of sensitive biological resources, which include wildlife movement corridors and native wildlife nursery site. Because these features are typically considered sensitive biological

resources, implementation of Policies COS-1.1 and COS 1.2 would require evaluation of these features during site-specific surveys as well as development of mitigation measures to avoid, minimize, or compensate for impacts. Policies COS-1.7, COS-1.8, COS-1.9, COS-1.10, and COS-1.11 include requirements ~~to requirements~~ for environmental review for projects within 300 feet of wetland habitat, implementation of 100-foot setbacks from wetland habitat, incorporation of protective design features to avoid impacts to riparian habitat, and requirements for consultation with natural resources agencies for guidance regarding avoidance and minimization of impacts to rare, threatened, or endangered species. These requirements would have an indirect benefit on wildlife movement corridors and native wildlife nursery sites as these features are frequently associated with sensitive biological habitats (e.g., wetlands, riparian corridors). Policies COS-2.2, COS-2.4, COS-2.8, COS-2.9, COS-2.10, COS-2.11 address habitat conservation and protection of fisheries and marine resources within the Coastal Zone. Policies COS-1.3, COS-1.4, and COS-1.5 specifically address impacts on wildlife movement. For instance, the County is required to consider impacts to wildlife movement as part of the discretionary project review process, and the design and maintenance of floodplain improvements including culverts and bridges must be reviewed by a qualified biologist to accommodate feasible wildlife passage measures. Policy COS-9.3 addresses preservation of open space lands for habitat protection and wildlife movement. Development within the county will also be guided by nine Area Plans; however, the policies of these Area Plans do not provide additional or more specific protection for resident or migratory wildlife corridors or native wildlife nursery sites than the 2040 General Plan policies.

3.9 REVISIONS TO SECTION 4.5: CULTURAL, TRIBAL CULTURAL, AND PALEONTOLOGICAL RESOURCES

For clarification, the text of Mitigation Measure CUL-1a on page 4.5-15 is refined as shown below:

Mitigation Measure CUL-1a: Revised Policy COS-4.4: Discretionary Development and Cultural, Historical, Paleontological, and Archaeological Resource Preservation

The County shall include the following revised policy in the 2040 General Plan.

Policy COS-4.4: Discretionary Development and Tribal, Cultural, Historical, Paleontological, and Archaeological Resource Preservation

The County shall require that all discretionary development projects be assessed for potential tribal, cultural, historical, paleontological, and archaeological resources by a qualified professional and shall be designed to protect existing resources, and shall avoid potential impacts to these resources whenever to the maximum extent feasible. ~~Whenever possible, significant impacts shall be reduced to a less-than-significant level through the application of feasible mitigation and/or shall be mitigated by extracting extraction of maximum recoverable data. Priority shall be given to measures that avoid resources.~~

In response to the County's tribal consultation process with the Fernandeano Tataviam Band of Mission Indians, the text of Mitigation Measure CUL-1c on page 4.5-16 is revised as shown below:

Mitigation Measure CUL-1c: New Implementation Program COS-X: Cultural, Historical, Paleontological, and Archaeological Resource Assessment Procedures

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program COS-X: Cultural, Historical, Paleontological, and Archaeological Resource Assessment Procedures

For discretionary projects, the County shall require the following:

Projects shall be designed to protect existing resources and shall avoid potential impacts to the maximum extent feasible.¹

If determined necessary by the County, an archaeological, or paleontological, and/or Native American monitor shall be retained to monitor ground-disturbing activities during construction.

If any materials or artifacts are discovered during ground disturbance and/or construction activities, construction shall halt until a qualified archaeologist, paleontologist, or Native American monitor can access the discovery. A report or memorandum shall be prepared by the qualified monitor documenting any findings and identifying recommendations for protection or avoidance of discovered resources. Recommendations or mitigation identified by the qualified monitor shall be implemented prior to commencing or continuing project activities and/or construction.

1. "Feasible" means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of "feasible" set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

For clarification, the text of Mitigation Measure CUL-3 beginning on page 4.5-19 is revised to define the term “feasible,” as shown below:

Mitigation Measure CUL-3: New Implementation Program COS-X: Project-Level Historic Surveys and Protection of Historic Resources

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program COS-X: Project-Level Historic Surveys and Protection of Historic Resources

During project-specific environmental review of discretionary development, the County shall define the project’s area of potential effect for historic buildings and structures. The County shall determine the potential for the project to result in historic resource impacts, based on the extent of ground disturbance and site modification anticipated for the project. The potential for adverse impacts to historic resources shall also be determined pursuant to the requirements and protocol set forth in the Ventura County ISAG and Cultural Heritage Board Ordinance.

Before altering or otherwise affecting a building or structure 50 years old or older, the project-applicant shall retain a qualified architectural historian according to the Secretary of the Interior Standards, to record it on a California Department of Parks and Recreation DPR 523 form or equivalent documentation, if the building has not previously been evaluated. Its significance shall be assessed by a qualified architectural historian, using the significance criteria set forth for historic resources under CEQA Guidelines Section 15064.5. The evaluation process shall include the development of appropriate historical background research as context for the assessment of the significance of the structure in the county and the region. For buildings or structures that do not meet PRC 5024.1 or the CEQA criteria for historical resource, no further mitigation is required.

For a building or structure that qualifies as a historic resource, the architectural historian and the County shall consult to consider measures that would enable the project to avoid direct or indirect impacts to the building or structure. These could include preserving a building on the margin of the project site, using it “as is,” or other measures that would not alter the building. If the project cannot avoid modifications to a historic building or structure, the following shall be considered:

- 1) If the building or structure can be preserved on site, but remodeling, renovation or other alterations are required, this work shall be conducted in compliance with the Secretary of the Interior’s Standards for the Treatment of Historic Properties.
- 2) If a significant historic building or structure is proposed for major alteration or renovation, or to be moved and/or demolished, the County shall ensure that a qualified architectural historian thoroughly documents the building and associated landscape and setting. Documentation shall include still and video photography and a written documentary record/history of the building to the standards of the Historic American Building Survey or Historic American Engineering Record, including accurate scaled mapping, architectural

descriptions, and scaled architectural plans, if available. The record shall be prepared in consultation with State Historic Preservation Officer and filed with the Office of Historic Preservation. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site specific and comparative archival research, and oral history collection as appropriate.

- 3) If preservation and reuse at the site are not feasible,¹ the historical building shall be documented as described in item (2) and, when physically and financially feasible,¹ be moved and preserved or reused.
- 4) If, in the opinion of the qualified architectural historian, the nature and significance of the building is such that its demolition or destruction cannot be fully mitigated through documentation, the County shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the proposed project that would allow the structure to be preserved intact. These could include project redesign, relocation or abandonment. If no such measures are feasible,¹ the historical building shall be documented as described in item (2).

1. “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

In response to the County’s tribal consultation process with the Fernandeano Tataviam Band of Mission Indians, the following revisions are proposed to Mitigation Measure CUL-5 on page 4.5-23:

Mitigation Measure CUL-5: Revised Policy COS-4.2: Cooperation for Cultural, Historical, Paleontological, and Archaeological Resource Preservation

The County shall include the following revised policy in the 2040 General Plan.

Policy COS-4.2a: Cooperation for ~~Tribal~~ Cultural, Historical, Paleontological, and Archaeological Resource Preservation

The County shall cooperate with cities, special districts, ~~other~~ appropriate organizations, ~~including the Native American Heritage Commission~~, and private landowners to identify known tribal cultural, archaeological, historical, and paleontological resources. If necessary, the County shall engage in consultation with local tribes and preservation groups, to and preserve the county’s tribal cultural, historical, paleontological, and archaeological identified resources within the county.

Policy COS-4.2b: Cooperation for Tribal Cultural Resource Preservation

For discretionary projects, the County shall request local tribes contact information from Native American Heritage Commission, to identify known tribal cultural resources. If requested by one or more of the identified local tribes, the County shall engage in consultation with each local tribe to preserve, and determine appropriate handling of, identified resources within the county.

In response to the County's tribal consultation process with the Fernandeño Tataviam Band of Mission Indians, the following revisions are proposed to Mitigation Measure CUL-6 on page 4.5-26:

Mitigation Measure CUL-6: New Implementation Program COS-X: Implement Project-Level Security Measures
The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program COS-X: Implement Project-Level Security Measures

During project-level ground disturbance activities for discretionary development, in areas where paleontologically rich sites or tribal cultural resources are known to be present, project sites shall be secured during non-construction hours to ensure that the unauthorized access and the unlawful curation of fossil materials or tribal cultural resources does not occur. Such security measures may include construction fencing, unauthorized access signage, security lighting, and security cameras. For large-scale development, a security plan may be prepared prior to construction activities to detail security measures and protocol for the project site.

3.10 REVISIONS TO SECTION 4.6: ENERGY

No revisions have been made to this section of the draft EIR.

3.11 REVISIONS TO SECTION 4.7: GEOLOGIC HAZARDS

No revisions have been made to this section of the draft EIR.

3.12 REVISIONS TO SECTION 4.8: GREENHOUSE GAS EMISSIONS

To provide clarification, the California Air Resources Board's (CARB's) Methane Municipal Waste Landfill Regulation on has been added to the "Regulatory Settings" subsection page 4.8-1 of the draft EIR is revised as follows:

The California Air Resources Board (CARB) adopted regulations to reduce Methane Emissions from Municipal Solid Waste Landfills (June 2010) which require the installation and proper operation of gas collection and control systems at active, inactive, and closed municipal solid waste landfills having 450,000 tons of waste-in-place or greater that received waste after January 1, 1977 unless certain exemption conditions have been met. The regulations contain performance standards for the gas collection and control system and specify monitoring requirements to ensure that the system is being maintained and operated in a manner to minimize methane emissions. The regulations include a leak standard for gas collection and control

system components, a monitoring requirement for wellheads, methane destruction efficiency requirements for most control devices, surface methane emission standards, and reporting requirements.

The following discussion of the Regulation for Mandatory Reporting of Greenhouse Gas Emissions and the Cap-and-Trade regulation pertaining to GHG emissions sources is added on page 4.8-2:

In 2011, CARB adopted the Cap-and-Trade regulation and created the Cap-and-Trade program. The program covers GHG emissions sources that emit more than 25,000 metric tons of carbon dioxide equivalent per year (MTCO₂e/year) such as refineries, power plants, industrial facilities, and transportation fuels. The Cap-and-Trade program includes an enforceable statewide emissions cap that declines approximately 3 percent annually. CARB distributes allowances, which are tradable permits, equal to the emissions allowed under the cap. Sources that reduce emissions more than their limits can auction carbon allowances to other covered entities through the Cap-and-Trade market. Sources subject to the cap are required to surrender allowances and offsets equal to their emissions at the end of each compliance period (CARB 2012). Stationary sources that emit more than 10,000 MTCO₂e/year are required to report their GHG emissions annually to CARB pursuant to the Mandatory Reporting Regulation but are not required to reduce GHG emissions until the 25,000 MTCO₂e/year cap is exceeded. The Cap-and-Trade program was initially slated to sunset in 2020, but the passage of SB 398 in 2017 extended the program through 2030.

To provide clarification, page 4.8-5 of the draft EIR is revised as follows:

This is a change in GWP values from the IPCC Fourth Assessment Report (AR4), which were originally used in the inventory, and in Appendix B of the 2040 General Plan for consistency with the State's Scoping Plan. GWP values apply a weight to gases that have been determined by scientific studies to have increased GHG effects relative to the most common GHG, carbon dioxide (CO₂). These weighted gasses are combined with CO₂ to form a common unit of measurement called CO₂e. For this analysis GWP values of 28 for methane and 265 for nitrous oxide were used for consistency with AR5 (Myhre et. al 2013). Table 4.8-1 shows the 2015 GHG emissions for Ventura County, which were used as the baseline for the integrated CAP.

Table 4.8-1 Baseline 2015 GHG Emissions for the Unincorporated County

| Sector | MT CO ₂ e | % of countywide emissions ¹ |
|----------------------|---------------------------------------|----------------------------------------|
| Agriculture | 260,849 | 13.5 43.7 |
| Building Energy | 322,048 | 16.6 47.0 |
| Off Road Equipment | 52 | <0.1 |
| Solid Waste | 333,167 | 17.2 47.6 |
| Stationary Source | 317,222 275,096 | 16.4 44.5 |
| Transportation | 692,753 | 35.7 36.5 |
| Water and Wastewater | 13,148 | 0.7 0.4 |
| Total | 1,939,238 1,897,142 | 100 |

1: Percentages may not add to 100 percent due to rounding.

Projections

GHG emissions for most sectors in the unincorporated area of the county were forecast through 2020, 2030, 2040, and 2050 using growth rates for population, employment, and housing prepared by the Southern California Association of Governments (SCAG) for the 2020 Regional Transportation Plan and Sustainability Communities Strategy (SCAG 2017). Transportation sector GHG emissions for on-road vehicles were projected using VMT forecasts obtained from the Ventura County Transportation Commission (VCTC). These VMT forecasts were adjusted using recommended methods from the SB 375 (2008) Regional Targets Advisory Committee and converted to CO₂e using emissions factors from CARB’s Emissions Factor model. Stationary source emissions sector GHG emissions were scaled according to the Ventura County’s historical trends in oil production over the last 40 years, starting from 1980, using data from CARB and the annual report from the California Department of Conservation (California Department of Conservation 2020, CARB 2013). The business-as-usual forecasts were adjusted to account for State and federal legislative and regulatory actions that will reduce future emissions from activities within the unincorporated area, without any additional local government action. Legislation and regulations considered include:

Table 4.8-2 on page 4.8-6 is revised to reflect the changes in draft EIR Appendix D:

Table 4.8-2 Forecast GHG Emissions for Unincorporated Ventura County 2020 to 2050

| Sector | Forecast Emissions ¹ (MT CO ₂ e) | | | |
|----------------------|--------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | 2020 | 2030 | 2040 | 2050 |
| Agriculture | 256,223 | 248,882 | 241,541 | 234,200 |
| Building Energy | 308,629 | 285,079 | 225,567 | 197,996 |
| Off Road Equipment | 52 | 54 <u>52</u> | 56 <u>52</u> | 59 <u>52</u> |
| Solid Waste | 323,611 <u>302,814</u> | 316,441 <u>278,381</u> | 288,020 <u>270,289</u> | 262,405 <u>262,560</u> |
| Stationary Source | 245,340 <u>287,845</u> | 198,432 <u>314,526</u> | 160,660 <u>343,679</u> | 130,212 <u>375,535</u> |
| Transportation | 625,263 | 487,058 | 446,355 | 450,232 |
| Water and Wastewater | 13,420 <u>13,148</u> | 13,576 <u>13,148</u> | 13,699 <u>13,148</u> | 13,788 <u>13,148</u> |
| Total | 1,772,537 <u>4,793,974</u> | 1,549,522 <u>4,627,124</u> | 1,375,898 <u>4,540,630</u> | 1,288,892 <u>4,533,723</u> |

Notes: MT CO₂e = metric tons of carbon dioxide equivalents, comprised of carbon dioxide, methane, and nitrous oxides. ¹Includes legislative reductions from State and federal programs.

Source: Ascent Environmental, 2020~~19~~

Table 4.8-3 on page 4.8-7 is also revised to reflect the changes in draft EIR Appendix D:

Table 4.8-3 2040 General Plan Target Reduction from 2015 Baseline Emissions Levels, 2020 to 2050

| | 2020 | 2030 | 2040 | 2050 |
|------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Target Percentage Below 2015 Baseline GHG Emission Levels | 2.1% | 41.3% | 60.9% | 80.4% |
| GHG Emissions Target (MT CO ₂ e) | 1,897,847 <u>4,856,620</u> | 1,138,708 <u>4,113,072</u> | 759,139 <u>742,648</u> | 379,569 <u>371,324</u> |
| GHG Reductions Needed from Forecast GHG Emissions to Meet Targets (MT CO ₂ e) | -125,310 | <u>410,813</u> | <u>616,760</u> | <u>909,323</u> |
| | -62,649 | 513,153 | 797,982 | 4,162,398 |

Notes: The negative number for GHG reductions in 2020 means that the forecast GHG emissions for 2020 will be below the 2020 target.

Source: Ascent Environmental, 2020~~19~~

For clarification, the discussion of Impact 4.8-1 on page 4.8-38 is revised as follows:

Under the business-as-usual scenario adjusted for federal and State climate and energy legislation, as described above in the methodology subsection, GHG emissions in unincorporated Ventura County are projected to decrease from 1,772,537 ~~1,793,971~~ MT CO_{2e} in 2020 to 1,375,898 ~~1,540,630~~ MT CO_{2e} in 2040, a decrease of 396,639 ~~253,344~~ MT CO_{2e} or 44-22 percent (as shown in Table 4.8-2). Between 2015 and 2040, GHG emissions are projected to decrease from 1,939,238 ~~1,897,112~~ MT CO_{2e} to 1,375,898 ~~1,540,630~~ MT CO_{2e}, a decrease of 563,340 ~~356,482~~ MT CO_{2e} or 49-29 percent.

These GHG reductions are primarily due to State and federal implementation of legislation with local benefits, such as increases to the pace and scale of renewable energy generation replacing fossil-fuel power plants in compliance with RPS mandates, local implementation of actions associated with CARB's Short-Lived Climate Pollutant Strategy, and improvements to the fuel economy of new motor vehicles resulting from implementation of the State's Advanced Clean Cars Program. Additionally, emissions related to oil and gas production under the stationary source sector has been declining since 1980 and is expected to continue to decline into the future as oil and gas resources in the area are reduced. While these regulations and resource trends result in meaningful GHG reductions at the local level, additional actions, local or otherwise, would be needed to meet the GHG 2030 reduction target of 41 percent below 2015 levels by 2030, as identified in the 2040 General Plan under Policy COS-10.2.

In addition, the following changes have been made to Table 4.8-5 and the text that follows on pages 4.8-39 and 4.8-40:

Table 4.8-5 Quantified GHG Reductions

| Program / Policy | 2030 GHG Reductions – MT CO_{2e} | Assumptions |
|-------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AG-H: Nutrient Management Plans | 33,830 | Replace inorganic nitrogen fertilizer with organic fertilizer from locally sourced organic waste – 25 percent replacement by 2030. |
| COS-8.4: Clean Power Alliance | 59,972 | Community Choice Aggregation Program increases enrollment in Green Choice Program (100 percent renewable electricity) to 95 percent of all residential and commercial customers by 2030. |
| COS-H: County Tree Planting Program | 354 | Tree planting program, 1,000 annually for 10,000 new trees by 2030. |
| COS-S: Building Code Update | 2,019 | Enhance energy efficiency of new residential and commercial construction and major retrofits over standard Title 24 building code. All new residential construction all-electric by 2030 with solar photovoltaic panels sized to offset annual electricity demand. |
| COS-W: Energy Efficiency and Conservation Program | 5,042 | Behavior change energy efficiency program results in residential energy savings; 5 percent reduction in commercial building energy use. |
| CTM-B: Initial Study Assessment Guidelines | <u>19,617</u> 5,042 | 15 percent VMT reduction from new development (relative to a 2030 business as usual scenario) through incorporation of VMT thresholds into the ISAG pursuant to SB 743 implementation. |
| CTM-C: Vehicle Miles Traveled (VMT) Reduction Program | 47,231 | After accounting for the 15 percent VMT reduction from new development per CTM-B, this measure would achieve an additional 5 percent overall reduction in VMT by 2030, and 10 percent by 2040 (relative to 2030 and 2040 business as usual scenarios, respectively). |
| Total | <u>151,993</u> 168,065 | |

Implementation of the quantified policies and programs in Table 4.8-5 would collectively provide reductions of ~~168,065~~ ~~151,903~~ MTCO₂e by 2030, an approximate ~~9~~ 11 percent reduction from forecast 2030 levels and ~~40~~ ~~39~~ percent of the reductions needed to meet a target of ~~1,113,972~~ 1,138,708 MT CO₂e for consistency with emissions targets identified in Policy COS-10.2 (41 percent below 2015 levels by 2030). An additional ~~242,748~~ ~~361,250~~ MT CO₂e of reductions would be needed to close the gap with the 2030 target.

The analysis of Implementation Program COS-M on page 4.8-44 of the draft EIR has been corrected as shown below:

Under Implementation Program COS-~~LM~~, the County would evaluate the feasibility of an excise tax on oil and gas operations, which would be intended to partially fund the County’s response to climate change impacts. These taxes would presumably be in addition to fees already collected by the County for these activities. Before an oil excise tax could be levied, it would need to be approved by both the Board of Supervisors and at least a majority vote of the electorate.

Policy COS-7.2 was inadvertently included in Table 4.8-7 in the draft EIR, and the County has corrected this error to remove Policy COS-7.2 from Table 4.8-7, as shown below (page 4.8-45):

Table 4.8-7 GHG-Reducing Policies Not Associated with Implementation Programs

| GP Policy Element | Policy |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land Use | LU-11.3, LU-11.4, LU-16.5, LU-16.9, LU-18.5 |
| Circulation, Transportation | CTM-2.5, CTM-2.6, CTM-2.7, CTM-2.8, CTM-2.9, CTM-2.11, CTM-2.17, CTM-2.22, CTM-2.24, CTM-2.25, CTM-2.27, CTM-6.1, CTM-6.3, CTM-6.4, CTM-6.5, CTM-6.6, CTM-6.7 |
| Public Facilities | PFS-1.10, PFS-2.2, PFS-2.3, PFS-2.6, PFS-5.5, PFS-5.6, PFS-6.4, PFS-7.2, PFS-7.6, PFS-12.4 |
| Conservation | COS-1.13, COS-2.10, COS-3.3, COS-5.3, COS-7.2 , COS-7.4, COS-7.8, COS-8.2, COS-8.3, COS-8.4, COS-8.10, COS-9.1, COS-9.3 |
| Hazard | HAZ-10.1, HAZ-1.3, HAZ-1.4, HAZ-10.1, HAZ-10.5, HAZ-10.6, HAZ-10.7, HAZ-10.8, HAZ-11.9 |
| Agriculture | AG-1.1, AG-3.2, AG-4.3, AG-4.4 |
| Water | WR-4.4, WR-6.1, WR-6.2, WR-6.3 |
| Economic Vitality | EV-4.4 |

For clarification, the language of Mitigation Measure GHG-1 beginning on page 4.8-45 is revised as follows:

Mitigation Measure GHG-1: New Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential and New Commercial Development

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential and New Commercial Development

To support the proposed reach codes under COS-S, the 2040 General Plan shall include a new program in the Hazards and Safety element that prohibits the installation of new natural gas infrastructure in new residential development

~~construction through amendments to the Ventura County Building Code. This program shall also be extended to include new commercial development building types such as including but not limited to offices, retail buildings, and hotels, where the use of natural gas is not critical to business operations and contain appliances that can be feasibility substituted with electricity powered equivalents. The County shall allow~~ may exempt certain new commercial development to be exempt from these requirements where the County can make upon making findings based on substantial evidence that supports why the use of natural gas is critical to business operations, and that it is not feasible¹ to replace critical appliances or equipment with electricity powered equivalents. This program shall be completed no later than 2023.

1. “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

The language of Mitigation Measure GHG-2 beginning on page 4.8-46 is revised as follows to clarify the County’s commitment to implementation:

Mitigation Measure GHG-2: New Implementation Program HAZ-X: Building Energy Saving Ordinance for Industrial Buildings

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program HAZ-X: Building Energy Saving Ordinance for Industrial Buildings

To address GHG emissions associated with electricity consumption by industrial buildings, which were not quantified in the GHG Inventory and Forecasting due to utility privacy rules, the County shall implement a program to adopt a Building Energy Saving Ordinance, no later than 2025, for industrial buildings over 25,000 square feet in size, modeled after the local benchmarking ordinances adopted in other local jurisdictions in California (CEC 2019). The County shall prepare reports showing the energy performance of industrial buildings relative to similar buildings in California and the United States and make these reports available to the public by request. The County, through ~~the~~ its building department shall provide recommendations on energy efficiency retrofits and green building strategies to improve energy performance to property owners and tenants subject to the reporting requirements.

The County has revised Mitigation Measure GHG-4 on page 4.8-47 to clarify the scope of its Greenhouse Gas Reduction Policy Enhancement Program and to clarify the membership and scope of the Climate Emergency Council, as provided below:

Mitigation Measure GHG-4: New Implementation Program ~~COS-X HAZ-X~~: Greenhouse Gas Reduction Policy Enhancement Program and Revised Implementation Program COS-CC: Climate Emergency Council

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program ~~COS-X HAZ-X~~: Greenhouse Gas Reduction Policy Enhancement Program

The Climate Emergency Council (CEC) that would be established under COS-CC shall develop recommended subprograms which implement the 52 policies identified in Table 4.8-7 of the draft EIR that do not have associated implementation programs in the 2040 General Plan. ~~Any recommendations that would require amendments to the General Plan, including any subprograms that may include expansions to programs already proposed in the 2040 General Plan, shall be provided to the County Planning Director. The Planning Director shall include the recommendation in a report for consideration by the Planning Commission and Board of Supervisors. This report shall be presented to the Board of Supervisors.~~

For any additional future policies that may be adopted as part of the County's Greenhouse Gas (GHG) Reduction Strategy (2040 General Plan, Policy COS-10.1), the CEC may recommend new subprograms. The CEC shall demonstrate in the materials submitted to the Board of Supervisors that the proposed subprograms and policies would result in quantifiable GHG emission reductions that further the County's progress towards achieving the 2030, 2040, and 2050 GHG reduction targets and goals established in the 2040 General Plan. The GHG emission reduction policy topics that may be considered and analyzed by the CEC for recommendation to the Board of Supervisors are identified in the Table 4.8-7 and include but are not limited to the following:

- Sustainable Technologies:
- Regional Bicycle Infrastructure:
- Funding and Maintenance for Sidewalks:
- Amtrak Service Improvements:
- Routine Use of Alternative Transportation Options:
- Permeable Pavement:
- Facilities for Emerging Technologies:
- Electric Vehicle Charging Stations:
- Neighborhood Electric Vehicles:
- Shared Mobility Operations:
- Sustainable Community Facility Design:
- Energy Efficient Facility Construction, Purchases, Leases, Retrofits, and Expansions:
- Agricultural Waste Reuse:
- Value-Added Alternatives to Waste Disposal:
- Smart Grid Development:

Consistent Fire Protection Standards for New Development;
Soil Productivity;
Incentives for Energy Efficiency;
Battery Energy Storage Systems;
Air Pollutant Reduction;
Air Pollution Impact Mitigation Measures for Discretionary Development;
Transportation Control Measures Programs;
Alternative Transportation Modes;
Urban Greening;
Integrated Pest Management Practices;
Technological Innovation; and
Renewable Energy Facilities.

The CEC's recommended GHG reduction subprograms and policies shall be presented to the Planning Commission for review and recommendation to the Board of Supervisors, and then to the Board of Supervisors for consideration and approval, no later than 2025. The Board of Supervisors shall have sole authority to adopt (including as modified) and direct the County's implementation of the subprograms and policies that are developed and recommended by the CEC. Any CEC recommendation that would require amendments to the 2040 General Plan, County ordinances, policies or regulations shall be processed and approved by the County in accordance with all applicable legal requirements.

~~Any recommendations that would require amendments to the General Plan, including any subprograms that may include expansions to programs already proposed in the 2040 General Plan, shall be provided to the County Planning Director. The Planning Director shall include the recommendation in a report for consideration by the Planning Commission and Board of Supervisors. This report shall be presented to the Board of Supervisors by 2025.~~

The County shall also include the following revised implementation program in the 2040 General Plan.

Implementation Program COS-CC: Climate Emergency Council

The County shall establish a Climate Emergency Council (CEC) by a resolution of the Board of Supervisors to advise the Board of Supervisors on climate action planning and implementation of the Climate Action Plan (CAP) goals, policies, and programs.

The County agency or department responsible for implementation of this program shall draft, administer, and maintain the CEC bylaws. Initial establishment of the CEC and its bylaws shall include the following terms, duties, and membership composition:

- ▶ Term of each member is two years. At the conclusion of a term, a CEC member may be re-appointed or re-selected, as applicable, for a consecutive term by the appointing authority.

- ▶ Duties of the CEC members include attendance at duly called meetings; review, in advance, of all written material provided in preparation for CEC meetings; serve and participate on committees and/or sub-committees; and contribute to the CEC’s advisory recommendations to the Board of Supervisors;
- ▶ The officers of the CEC shall be Chairperson and Vice-Chairperson.
 - Officers shall be elected annually at regular meeting each year by CEC members. Nomination shall be made from the floor. Election shall be by simple majority.
 - Officers shall serve a one-year term. An officer may be re-elected, but no individual shall serve more than three full consecutive terms in the same office. No member shall hold more than one office at a time.
 - The Chairperson shall preside at all meetings of the CEC, sign all correspondence, reports, and other materials produced by the CEC, and perform any and all other duties prescribed by the CEC from time to time. The Chairperson may serve as an ex-officio member of all committees.
 - The Vice-Chairperson shall represent the Chairperson and/or substitute in performance of the Chairperson during their absence.
- ▶ Membership of the CEC shall be comprised of the following:
 - One person representing each Supervisorial District who has demonstrated interest in and knowledge of climate action planning shall be nominated by each of the five members of the Board of Supervisors, and confirmed by a majority of the Board of Supervisors resulting in a total of five Supervisorial District representatives;
 - One resident from each of the designated disadvantaged communities identified in the 2040 General Plan who has demonstrated an understanding of their community’s needs as well as an interest in and knowledge of climate action planning shall be appointed by a majority of the Board of Supervisors; and
 - Two additional at-large members who have demonstrated special interest, competence, experience, or knowledge in climate action planning shall be selected by a majority of the CEC members.
 - Each member is entitled to one vote on each matter submitted to a vote of the CEC.

For clarification, the second paragraph on page 4.8-49 is revised as follows:

With the modest amount of forecast future growth in the county, substantial GHG reductions would need to be derived from measures targeting existing development,

infrastructure, and associated activity levels. Most emissions that are forecast to occur in the county are from energy use in existing buildings, vehicle use and travel behavior influenced by the existing land use pattern and transportation systems, landfilled waste, and established agricultural operations. While the County encourages and promotes the reduction of or changes to these activities contributing to GHG emissions, it may decide that certain mitigation measures are infeasible based, for example, on their ~~does not~~ ~~have the authority to enforce measures that may potentially~~ infringement upon private property rights, reduction in the economic competitiveness of local businesses, or inhibition on the ability for residents to travel between residences, jobs, and amenities. Pursuant to Section 15093 of the State CEQA Guidelines, CEQA requires the lead agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable. These factors are considered by the decision-making body of the lead agency following certification of the EIR and prior to making a decision about whether to approve the project ~~constrain the ability for the County to reduce GHG emissions from existing activities through additional mitigation measures.~~

For clarification, the following edit is made to the discussion on page 4.8-50:

However, for these reasons and those described in Impact 4.8-1, the County cannot meaningfully quantify the effect of all its 2040 General Plan policies and programs on future GHG emissions, and ~~there~~ therefore, it cannot conclude, at this program level of analysis, that future GHG emissions in the county under the 2040 General Plan would be sufficiently reduced to meet the State's 2030 or post-2030 targets.

For clarification, the following edit is made to the discussion on page 4.8-52:

However, due to the County's minimal growth, most of the forecast GHG emissions in 2030 and beyond are caused or influenced by ~~from~~ energy use in existing buildings, vehicle use and travel behavior on existing transportation systems, landfilled waste, and agricultural uses where the County has limited authority to enforce stringent actions resulting in GHG reductions beyond what have been already been included in the 2040 General Plan and the mitigation measures identified in Impact 4.8-2.

3.13 REVISIONS TO SECTION 4.9: HAZARDS, HAZARDOUS MATERIALS, AND WILDFIRE

No revisions have been made to this section of the draft EIR.

3.14 REVISIONS TO SECTION 4.10: HYDROLOGY AND WATER QUALITY

To provide clarification, the first full sentence on page 4.10-21 is revised to read:

Lastly, the County has existing regulations, such as the Ventura County Flood Plain Management Ordinance 4521, the Ventura County Flood Control District Design Manual

and the Ventura County Watershed Protection District's 2017 Design Hydrology Manual 2006, that also address flood control and drainage facilities.

The third sentence in the second paragraph on page 4.10-21 is revised to read:

The County's existing regulations, such as the Ventura County Flood Plain Management Ordinance 4521, the Ventura County Flood Control District Design Manual and the Ventura County Watershed Protection District's 2017 Design Hydrology Manual 2006, also address flood control and drainage facilities and implement design standards to ensure that no overflow of watercourses would occur that would result in flooding.

3.15 REVISIONS TO SECTION 4.11: LAND USE AND PLANNING

To provide clarification, the third sentence in the second paragraph on page 4.11-19, and Table 4.11-1, on pages 4.11-19 and 4.11-20, are revised as follows:

The 2040 General Plan would accommodate future development primarily within existing unincorporated communities. By making refinements to the Existing Community and Urban land use designations of the existing general plan, the 2040 General Plan would more clearly distinguish among land uses allowed within each designation and set forth maximum development density and intensity standards. Specifically, the 2040 General Plan would establish ~~43~~¹⁵ new land use designations that provide more detailed information on the types of land uses (e.g., commercial, industrial, residential) that would be allowable within areas currently designated as Existing Community and Urban (Table 4.11-1). The refined land use designations of the 2040 General Plan would result in future development that is compatible with the land uses, densities, and parcel sizes of existing communities.

Table 4.11-1 Existing General Plan Land Use Designations and Proposed New General Plan Land Use Designations

| Acronym | Land Use Designation | Max. Density/ Intensity | Min. Lot Size |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------|
| Existing General Plan Land Use Designations to Remain | | | |
| RUR | Rural | 1 du/2 ac (1 dwelling unit per each 2 acres) | 2 acres |
| AG | Agricultural | 1 du/40 ac | 40 acres |
| OS | Open Space | 1 du per parcel | 10 acres, or 20 acres if contiguous w/Agricultural |
| P | State or Federal Facility (updated to State, Federal, and Other Public Lands) | N/A | None |
| Proposed New Land Use Designations (to be applied only to areas with current Existing Community or Urban land use designations) | | | |
| ECU-R | ECU-Rural | 1 du/2 ac | 2 acres |
| ECU-A | ECU-Agricultural | 1 du/40 ac | 40 acres |
| ECU-OS | ECU-Open Space | 1 du per parcel | 10 acres, or 20 acres if contiguous w/Agricultural |
| VLDR | Very Low Density Residential | 3 du/ac | 10,000 SF |
| LDR | Low-Density Residential | 5 du/ac | 6,000 SF |

| Acronym | Land Use Designation | Max. Density/ Intensity | Min. Lot Size |
|-------------|------------------------------------------------|-------------------------|-------------------|
| MDR | Medium-Density Residential | 13 du/ac | 3,000 SF |
| RHD | Residential High-Density | 20 du/ac | No Minimum |
| RPD | Residential Planned Development | 20 du/ac | No Minimum |
| <u>CRPD</u> | <u>Coastal Residential Planned Development</u> | <u>36 du/ac</u> | <u>No Minimum</u> |
| <u>RB</u> | <u>Residential Beach</u> | <u>36 du/ac</u> | <u>No Minimum</u> |
| MU | Mixed Use | 20 du/ac; 60% coverage | No Minimum |
| C | Commercial | 60% coverage | No Minimum |
| CPD | Commercial Planned Development | 60% coverage | No Minimum |
| I | Industrial | 50% coverage | 10,000 SF |
| PR | Parks & Recreation | N/A | N/A |

For the purpose of clarity, the second and third sentences on page 4.11-21 are revised as follows:

For example, Policies LU-4.1 and LU-4.2 would reduce incompatible land uses by requiring that the County specifying densities and/or intensities of allowed uses within each land use designation and maintaining continuity with neighboring zoning, land uses, and parcel sizes. Policies LU-6.1, LU-7.1 through 7.3, and LU-8.1 through LU-8.4 reduce incompatible uses within agricultural areas by requiring specifying buffers for non-agricultural use, and specifying allowable coverage, and allowable uses within those areas.

3.16 REVISIONS TO SECTION 4.12: MINERAL AND PETROLEUM RESOURCES

The following discussion is added under the subheading “California Public Utilities Commission General Order No. 112-F, State of California Rules Governing Design, Construction, Testing, Operation, and Maintenance of Gas Gathering, Transmission, and Distribution Piping Systems” in Section 4.12.1, “Background Report Setting Updates,” on page 4.12-3:

California Geologic Energy Management Division (CalGEM) has the responsibility for approving oil and gas well activities in California. In a comment letter to Ventura County’s draft EIR on the General Plan Update, CalGEM specified certain of its regulatory authorities for inclusion in the final EIR. As indicated in Public Resources Code section 3106, CalGEM has jurisdictional authority over the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells, and attendant facilities, to prevent, as far as possible, damage to life, health, property, and natural resources, damage to underground oil, gas and geothermal deposits and damage to underground and surface waters suitable for irrigation or domestic purposes. In addition to CalGEM’s authority to order work on wells pursuant to PRC sections 3208.1 and 3224, it has authority to issue civil and criminal penalties. CalGEM does not regulate grading, excavations, or other land use issues. Other items specified by CalGEM include the following.

Well Stimulation and Underground Injection.

CalGEM oversees well stimulation treatments and underground injection control. Under the Safe Drinking Water Act, EPA has delegated authority over oil and gas injection

wells to the CalGEM UIC Program. CalGEM collaborates with the State and Regional Water Board to ensure than y useful water is protected.

Well and Lease Restoration Requirements

CalGEM enforces well site and lease restoration through CCR Title 14, Section 1776, including that well sites be returned to as near a natural state as practicable within 60 days of plugging and abandonment of any oil and gas well, and oil lease restoration to include the removal of all tanks, above-ground pipelines, debris, and other facilities and equipment. Lease restoration must begin within three months and completed within one year after the plugging and abandonment of the last wells on the lease.

Pipelines

With respect to pipelines, CalGEM's jurisdiction typically stops at the lease automatic custody transfer unit. CCR require "newly installed pipelines shall be designed, constructed, and all pipelines shall be tested, operated, and maintained in accordance with good oil field practice and applicable methods approved by the Supervisor." CCR also outlines the requirement for submission of pipeline management plans by operators to CalGEM.

Flaring

State PRC section 3300 states that "the unreasonable waste of natural gas by the act, omission, sufferance, or insistence of the lessor, lessee, or operator of any land containing oil or gas or both, whether before or after the removal of gasoline from the gas, is opposed to the public interest and is unlawful."

Identification of Abandoned Wells Prior to Development

Public Resources Code section 3208.1 establishes well reabandonment responsibility t when a previously plugged and abandoned well will be impacted by planned property development of construction activities. Local permitting agencies, property owners, and developers should be aware of, and fully understand that significant and potentially dangerous issues may be associated with development near oil, gas, and geothermal wells. In summary, CalGEM categorically advises against building over, or in any way impeding access to oil, gas, or geothermal wells. PRC section 3208.1 gives CalGEM the authority to order or permit the reabandonment of any well where it has reason to question the integrity of the previous abandonment, or if the well is not accessible or visible. No well work may be performed on any oil, gas, or geothermal well without written approval from CalGEM.

For clarification, the second and third paragraphs on page 4.12-9 will be revised as follows:

The Rural land use designation would allow for low-density and low-intensity land uses such as residential estates and other rural uses which are maintained in conjunction with agricultural and horticultural uses or in conjunction with the keeping of farm animals for recreational purposes, greenhouses, as principal and accessory structures related to agriculture, and also oil and gas ~~wells~~ exploration and production, all of which would apply to approximately 0.9 percent of land in the unincorporated county.

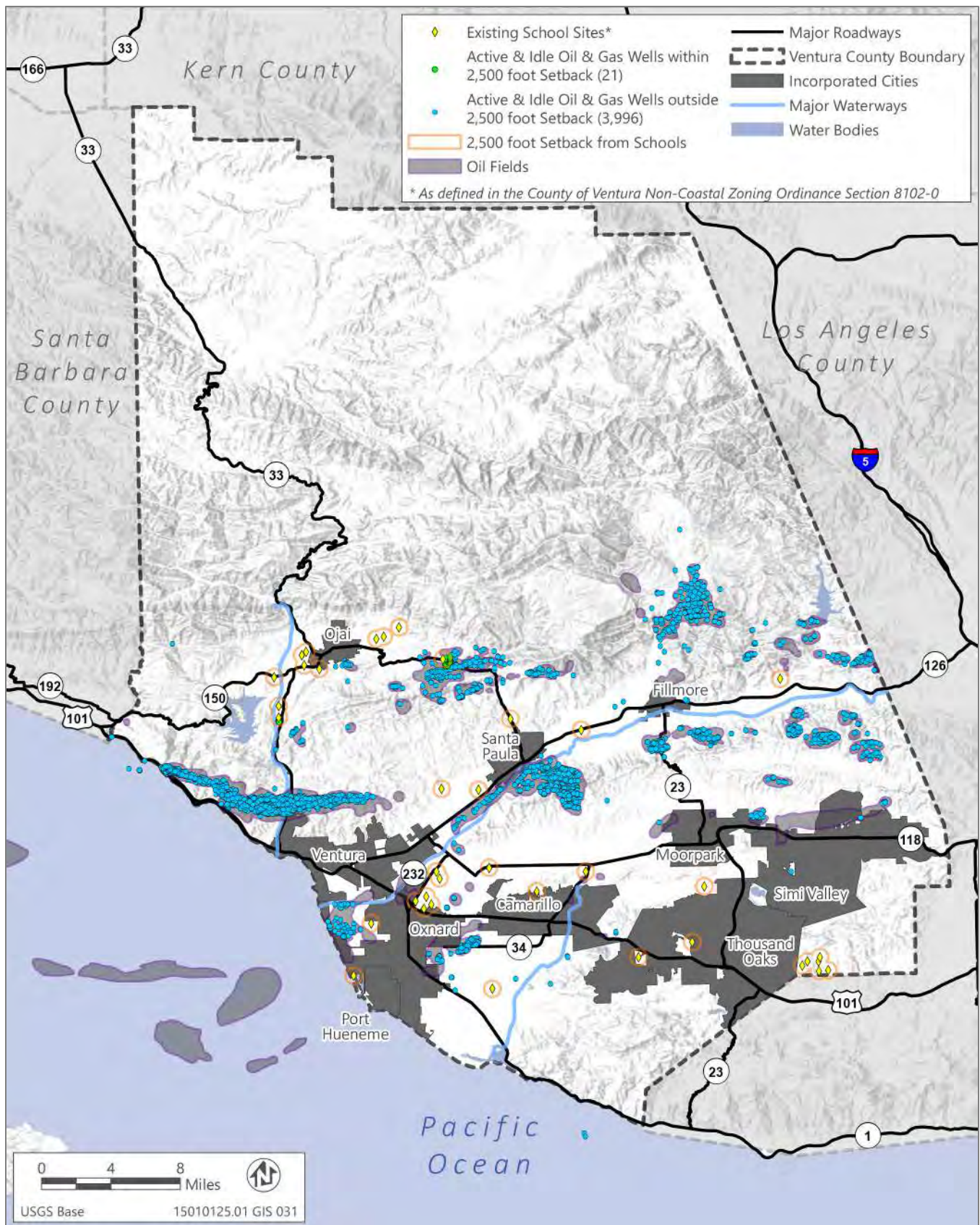
Approximately 97.1 percent of the unincorporated county would remain designated as either Open Space (approximately 88 percent) or Agriculture (approximately 9 percent) under the 2040 General Plan. The Open Space land use designation would allow low

intensity development with a minimum parcel size of 10 acres and 1 dwelling unit per parcel. Other uses could include composting operations, greenhouses, correctional institutions, fire stations, and oil and gas wells exploration and production. The Agriculture land use designation would allow for development of one dwelling unit per parcel and a minimum parcel size of 40 acres. Other uses could include greenhouses, as principal and accessory structures related to agriculture, and composting operations. Proposed policies of the 2040 General Plan addressing flaring and trucking associated with new discretionary oil and gas wells could result in the construction and operation of new pipelines for the conveyance of oil, gas, or produced water.

The last sentence of the second paragraph on page 4.12-14 in Section 4.12, "Mineral and Petroleum Resources," is revised as follows:

As shown in Figures 4.12-1 and 4.12-2, there are currently 21 ~~23~~ active and idle oil wells within 2,500 feet of existing schools and 715 active and idle oil wells within 1,500 feet of existing dwelling units in the unincorporated county.

Figure 4.12-1 on page 4.12-15 has been revised to remove Thomas Aquinas College and update the footnote, as shown below.



Source: Ventura County, 2016; CAL FIRE 2007 (State), 2008 (Local), and 2016 (Federal); USGS, 2013; DOGGR, 2019

Revised Figure 4.12-1 Oil and Gas Well 2,500-ft Setback from Schools Map

For consistency, the language of Policy COS 7.2 in Mitigation Measure PR-1 on page 4.12-18 has been revised to delete the reference to gas wells as follows:

Mitigation Measure PR-1: Revised Policy COS-7.2: Oil Well Distance Criteria

The County shall include the following revised policy in the 2040 General Plan.

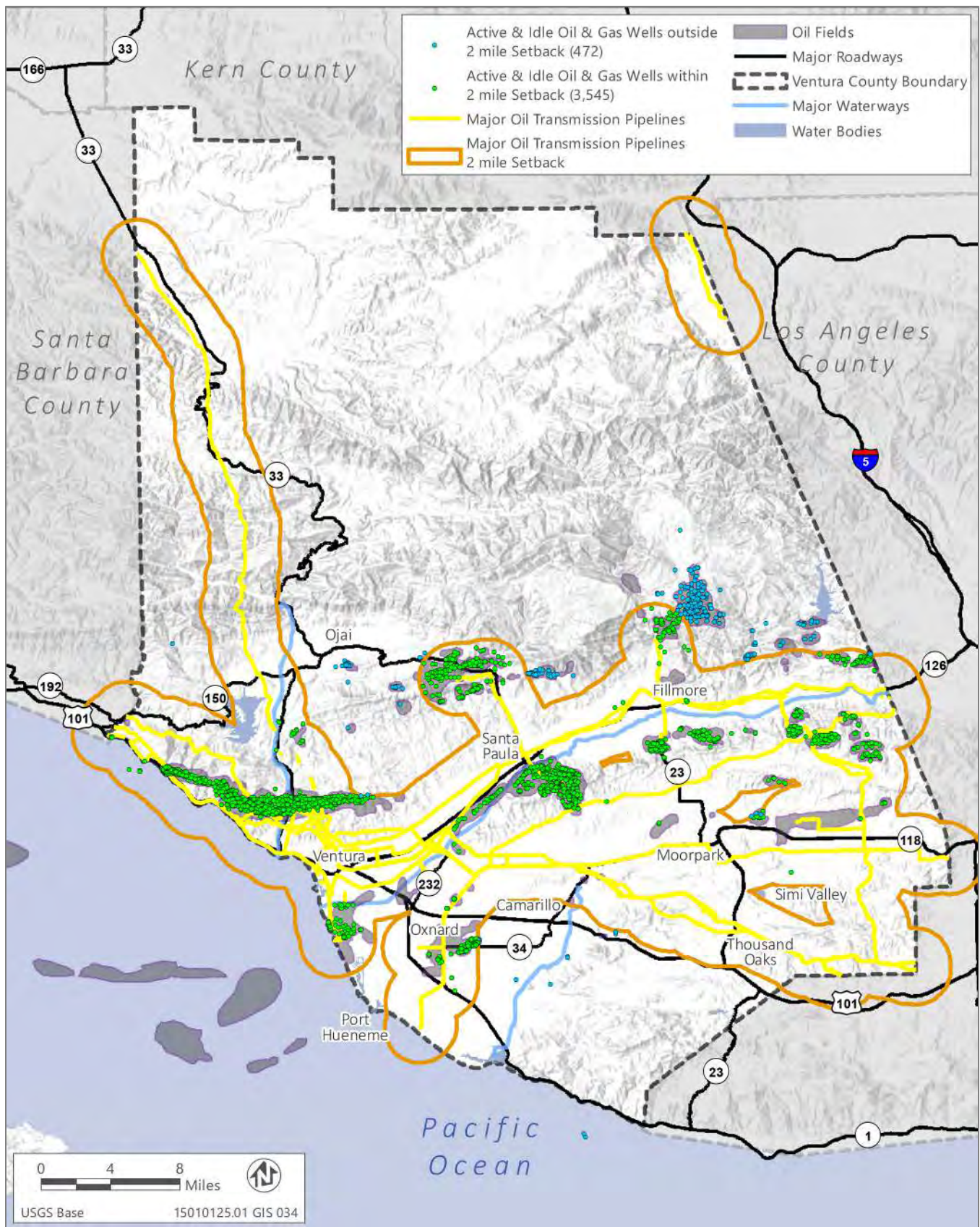
COS-7.2: Oil Well Distance Criteria

The County shall require that new discretionary oil ~~and gas wells to be located~~ be sited a minimum of 1,500 feet from the well head to residential dwellings, dwelling units, and 2,500 from any school, sensitive use structures which include dwellings, childcare facilities, hospitals, health clinics, and school property lines.

For clarity, the second paragraph on page 4.12-22 is revised to read:

As discussed above, Figure 4.12-3 depicts the oil fields within Ventura County, active and idle oil and gas wells, and the eleven zone classifications which allow for oil and gas exploration and production as a conditionally permitted land use that is potentially compatible with dwelling units and schools. Future oil and gas extraction within compatible zone classifications with minimum parcel sizes of 10,000 and 20,000 square feet may be hampered or access to petroleum reserves precluded as these zones have smaller minimum lot sizes which provide less flexibility in the siting of allowed uses and allow for greater maximum lot coverage which may inhibit compliance with the setback distances prescribed in Policy COS-7.2. Furthermore, as shown in Figures 4.12-1 and 4.12-2, there are currently 21 ~~23~~ active and idle oil wells within 2,500 feet of existing schools and 715 active and idle oil wells within 1,500 feet of existing dwellings in the unincorporated county. Future discretionary expansion of oil production within the setback distances depicted on Figures 4.12-1 and 4.12-2 would be prohibited pursuant to Policy COS-7.2. Policy COS-7.2 could theoretically affect local oil and gas exports and increase the reliance on imports from outside of the 2040 General Plan area. There are no actions or policies that the County could feasibly mandate to fully reduce the impact that Policy COS 7.2 would have on hampering or precluding access to petroleum resources. This impact would remain **significant and unavoidable**.

Figure 4.12-4 (Major Oil Transmission Pipeline Map) on page 4.12-25 has been revised, as shown below, to remove the incorporated cities layer that previously obscured the oil fields.



Revised Figure 4.12-4 Major Oil Transmission Pipelines Map

Mitigation Measure PR-2 and Mitigation Measure PR-3 on page 4.12-31 have been revised as shown below to provide a definition for the term “feasible:”

Mitigation Measure PR-2: Revised Policy COS-7.7: Limited Conveyance for Oil and Produced Water
The County shall include the following revised policy in the 2040 General Plan.

Policy COS-7.7: Limited Conveyance for Oil and Produced Water

The County shall require new discretionary oil wells to use pipelines to convey crude oil and produced water, if feasible.¹; oil and produced water shall not be trucked. Trucking of crude oil and produced water may only be allowed if the proponent demonstrates, subject to approval by the County, that conveying the oil and produced water via pipeline is infeasible. In addition, trucking of crude oil and produced water is allowed in cases of emergency and for testing purposes consistent with federal, state and local regulations.

1. “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

Mitigation Measure PR-3: Revised Policy COS-7.8: Limited Gas Collection, Use, and Disposal
The County shall include the following revised policy in the 2040 General Plan.

Revised Policy COS-7.8: Limited Gas Collection, Use, and Disposal

The County shall require that gases emitted from all new discretionary oil and gas wells be collected and used or removed for sale or proper disposal, if feasible.¹ Flaring or venting shall may only be allowed if the proponent demonstrates, subject to approval by the County, that conducting operations without flaring or venting is infeasible. In addition, flaring or venting is allowed in cases of emergency or and for testing purposes consistent with federal, State, and local regulations.

1. “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

3.17 REVISIONS TO SECTION 4.13: NOISE AND VIBRATION

For clarification, Mitigation Measure NOI-1 on page 4.13-23 is revised as follows to define the term “feasible:”

Mitigation Measure NOI-1: New Policy HAZ-X: Implement Noise Control Measures for Traffic Noise
The County shall include the following new policy in the 2040 General Plan.

Policy HAZ-X: Implement Noise Control Measures for Traffic Noise

The County shall require noise control measures to be implemented along roadways for new discretionary development generating traffic noise if either of the following circumstances would exist:

The discretionary development would result in traffic noise levels above a County noise compatibility standard stated in Policy HAZ-9.2 in an area where traffic noise levels, under existing conditions, do not exceed the County noise compatibility standard; or,

The discretionary development would result in an increase in traffic noise levels of 3 dBA or greater in an area where traffic noise levels under existing conditions exceed a County noise compatibility standard stated in Policy HAZ-9.2.

Noise control measures may include increased vegetation, roadway pavement improvements and maintenance, and site and building design features. If such measures are not sufficient to reduce a new discretionary development’s fair share of traffic-generated noise at sensitive receptors, a sound wall barrier may be constructed. All feasible¹ noise reduction measures shall be implemented to ensure the development’s fair share of traffic-generated noise is reduced, consistent with Policy HAZ-9.2.

1. “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

For clarification, Mitigation Measure NOI-3 beginning on page 4.13-27 is revised as follows to define the term “feasible:”

Mitigation Measure NOI-3: New Implementation Program HAZ-X: Revise the Construction Noise Threshold Criteria and Control Plan

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program HAZ-X: Revise the Construction Noise Threshold Criteria and Control Plan

The County shall revise the Construction Noise Threshold Criteria and Control Plan within one year of 2040 General Plan adoption to consider all potential vibration-inducing activities and include various measures, setback distances, precautions, monitoring programs, and alternative methods to traditional construction activities with the potential to result in structural damage or excessive groundborne noise. Items that shall be addressed in the plan include, but are not limited to, the following:

Ground vibration-producing activities, such as pile driving and blasting, shall be limited to the daytime hours between 7:00 a.m. to 7:00 p.m. on weekdays or 9:00 a.m. to 7:00 p.m. on weekends and holidays.

If pile driving is used, pile holes shall be predrilled to the maximum feasible¹ depth to reduce the number of blows required to seat a pile.

All construction equipment on construction sites shall be operated as far away from vibration-sensitive sites as reasonably possible.

Earthmoving, blasting and ground-impacting operations shall be phased so as not to occur simultaneously in areas close to sensitive receptors, to the extent feasible.¹ The total vibration level produced could be significantly less when each vibration source is operated at separate times.

Minimum setback requirements for different types of ground vibration-producing activities (e.g., pile driving and blasting) for the purpose of preventing damage to nearby structures shall be established. Factors to be considered include the specific nature of the vibration producing activity (e.g., type and duration of pile driving), local soil conditions, and the fragility/resiliency of the nearby structures. Established setback requirements (i.e., 100 feet) can be breached if a project-specific, site specific analysis is conducted by a qualified geotechnical engineer or ground vibration specialist that indicates that no structural damage would occur at nearby buildings or structures.

Minimum setback requirements for different types of ground vibration producing activities (e.g., pile driving and blasting) for the purpose of preventing negative human response shall be established based on the specific nature of the vibration producing activity (e.g., type and duration of pile driving), local soil conditions, and the type of sensitive receptor. Established setback requirements (i.e., 300 feet) can be breached only if a

project-specific, site-specific, technically adequate ground vibration study indicates that the buildings would not be exposed to ground vibration levels in excess of 80 VdB, and ground vibration measurements performed during the construction activity confirm that the buildings are not being exposed to levels in excess of 80 VdB.

All vibration-inducing activity within the distance parameters described above shall be monitored and documented for ground vibration noise and vibration noise levels at the nearest sensitive land use and associated recorded data submitted to Ventura County so as not to exceed the recommended FTA levels.

Alternatives to traditional pile driving (e.g., sonic pile driving, jetting, cast-in-place or auger cast piles, nondisplacement piles, pile cushioning, torque or hydraulic piles) shall be considered and implemented where feasible¹ to reduce vibration levels.

1. “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

3.18 REVISIONS TO SECTION 4.14: POPULATION AND HOUSING

No revisions have been made to this section of the draft EIR.

3.19 REVISIONS TO SECTION 4.15: PUBLIC SERVICES AND RECREATION

No revisions have been made to this section of the draft EIR.

3.20 REVISIONS TO SECTION 4.16: TRANSPORTATION AND TRAFFIC

Mitigation Measure CTM-1 on page is revised to define the term “feasible:”

Mitigation Measure CTM-1: New Implementation Program CTM-X: Interim Vehicle Miles Traveled CEQA Assessment Criteria

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program CTM-X: Interim Vehicle Miles Traveled CEQA Assessment Criteria

Following June 30, 2020 and prior to completion of Implementation Program CTM-B, all projects (not otherwise exempt from CEQA analysis) shall be evaluated for

potential environmental impacts relative to VMT using the State’s minimum reduction standards, as follows:

| <u>Project Type</u> | <u>Measurement Unit</u> | <u>Model Trip Types</u> | <u>Minimum Criteria</u> | <u>Baseline VMT</u> | <u>Threshold VMT</u> |
|--------------------------------|---------------------------|---------------------------------------------|------------------------------------------|---------------------|----------------------|
| <u>Residential</u> | <u>VMT/Capita</u> | <u>Average of all Home Based Trip Types</u> | <u>15% Reduction of Regional Average</u> | <u>9.66</u> | <u>8.21</u> |
| <u>Office</u> | <u>VMT/Employee</u> | <u>Home Based Work Trips</u> | <u>15% Reduction of Regional Average</u> | <u>13.52</u> | <u>11.49</u> |
| <u>Industrial</u> | <u>VMT/Employee</u> | <u>Home Based Work Trips</u> | <u>15% Reduction of Regional Average</u> | <u>13.52</u> | <u>11.49</u> |
| <u>Retail</u> | <u>Unincorporated VMT</u> | <u>All Trip Types</u> | <u>No Net Increase in Regional VMT</u> | <u>7,500,249</u> | <u>7,500,249</u> |
| <u>Agriculture</u> | <u>Unincorporated VMT</u> | <u>All Trip Types</u> | <u>No Net Increase in Regional VMT</u> | <u>7,500,249</u> | <u>7,500,249</u> |
| <u>Infrastructure</u> | <u>Unincorporated VMT</u> | <u>All Trip Types</u> | <u>No Net Increase in Regional VMT</u> | <u>7,500,249</u> | <u>7,500,249</u> |
| <u>All Other Project Types</u> | <u>Unincorporated VMT</u> | <u>All Trip Types</u> | <u>No Net Increase in Regional VMT</u> | <u>7,500,249</u> | <u>7,500,249</u> |

If a proposed project is found to have a significant impact on VMT, the impact must be reduced, as feasible,¹ by modifying the project’s VMT to a level below the established thresholds of significance and/or mitigating the impact through multimodal transportation improvements or mitigations to enhance transportation mode shift (use of alternative transportation modes). Following completion and adoption of VMT thresholds as part of the Ventura County ISAG, this implementation program shall no longer apply.

1. “Feasible” means that this mitigation measure shall be applied to future discretionary projects under the 2040 General Plan when and to the extent it is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” as determined by the County in the context of such future projects based on substantial evidence. This definition is consistent with the definition of “feasible” set forth in CEQA (Pub. Res. Code, § 21066.1) and the CEQA Guidelines (§ 15164). The County shall be solely responsible for making this feasibility determination in accordance with CEQA.

To clarify the performance standards, Mitigation Measures CTM-2 and CTM-3 on draft EIR pages 4.16-27 and 4.16-28 are revised as follows:

Mitigation Measure CTM-2: Revised Implementation Program CTM-B: Initial Study Assessment Guidelines

The County shall include the following revised implementation program in the 2040 General Plan.

Implementation Program CTM-B: Initial Study Assessment Guidelines

The County shall update and adopt its’ Initial Study Assessment Guidelines (ISAG) no later than 2025 to address Vehicle Miles Traveled (VMT) and safety metrics

pursuant to CEQA Guidelines Section 15064.3. This program shall consider inclusion of the following components:

- ▶ Establishment of screening criteria to define projects not required to submit detailed VMT analysis, such as infill projects, inclusion of locally serving commercial, transit supportive projects, or transportation enhancements that reduce VMT;
- ▶ Establishment of thresholds of significance for identifying VMT related transportation impacts (to meet or exceed State requirements; at minimum the thresholds will be equivalent to the threshold values for different project types identified in Mitigation Measure CTM-1);
- ▶ Standard mitigation measures for significant transportation impacts; and
- ▶ Specify the County's procedures for reviewing projects with significant and unavoidable impacts, under CEQA, related to VMT.

Mitigation Measure CTM-3: Revised Implementation Program CTM-C: Vehicle Miles Traveled (VMT) Reduction Program

The County shall include the following revised implementation program in the 2040 General Plan.

Implementation Program CTM-C: Vehicle Miles Traveled (VMT) Reduction Program

To support climate change related goals and CEQA related VMT policies pursuant to SB 743 (2013), the County shall develop a VMT Reduction Program no later than 2025. This program ~~should~~ will contain a range of project- and program-level mitigation measures and VMT reduction strategies, that could include:

- ▶ Preparation of a Transportation Demand Management (TDM) program to promote mode shifts from single occupant vehicle use to transit, ridesharing, active transportation, telecommuting, etc.; and,
- ▶ Transportation System Management applications such as park-and-ride lots, intelligent transportation system (ITS) field deployment, pavement management, etc.

This program shall identify measures to achieve an additional five percent overall reduction in VMT by 2030, and 10 percent by 2040 (relative to 2030 and 2040 business as usual scenarios, respectively). During implementation of the 2040 General Plan, the County ~~shall~~ will review and update the VMT Reduction Program as warranted to provide additional mitigation measures and programs that achieve these levels of VMT reduction.

3.21 REVISIONS TO SECTION 4.17: UTILITIES

To provide clarification, the following text is added to Section 4.17.1, “Background Report Setting Updates,” under the subheading “Environmental Setting,” on page 4.17-1:

Water Purveyors – Calleguas Municipal Water District

Most of Ventura County residents (approximately three quarters) rely on Calleguas Municipal Water District (MWD) for at least a portion of their potable water supply. Calleguas MWD distributes high quality drinking water to 19 cities, local water agencies, and investor-owned and mutual water companies (listed below) throughout southeast Ventura County. These retail purveyors receive water through 140 miles of large-diameter pipeline operated and maintained by Calleguas MWD. In turn, these purveyors deliver water to area residents, businesses, and agricultural customers. Only a small portion of the water (approximately 5 percent) is used for agricultural purposes. Agricultural demands are generally met by other agencies or private entities using untreated surface water, recycled wastewater, and groundwater from various basins underlying the area (Calleguas MWD 2016).

The following water purveyors obtain all or a portion of their water from Calleguas MWD:

Berylwood Heights Mutual Water Company
Brandeis Mutual Water Company
Butler Ranch Mutual Water Company
California-American Water Company
California Water Service Company
Camrosa Water District
City of Camarillo
City of Oxnard
City of Port Hueneme
City of Thousand Oaks
Crestview Mutual Water Company
Golden State Water Company
Oak Park Water District
Pleasant Valley Mutual Water Company
Solano Verde Mutual Water Company
Ventura County Waterworks District No. 1 (VCWWD No. 1)
Ventura County Waterworks District No. 8 (VCWWD No. 8)
Ventura County Waterworks District No. 19 (VCWWD No. 19)
Ventura County Waterworks District No. 38 (VCWWD No. 38) – formerly
Lake Sherwood Community Services District (CSD)
Zone Mutual Water Company

Additionally, the following text is added to Section 4.17.1, “Background Report Setting Updates,” under the subheading “Environmental Setting,” on page 4.17-1:

Water Supply and Demand

In 2020, the Casitas Municipal Water District reported 99,836 acre-feet (AF) of available surface water supplies from Lake Casitas. The City of Ventura draws approximately 20 percent of its water resources from the Ventura River. The estimated annual water

supply in the Ventura River Watershed is 157,436 AF and the estimated annual demand is 14,508 AF.

The Calleguas Municipal Water District supplies the City of Oxnard with imported water from the Santa Clara River Watershed. In 2018, this water comprised 45 percent of the City's total supply.

To provide clarification, the average dry weather flow and level of treatment in the City of Oxnard presented in Table 4.17-1 on page 4.17-2 has been revised as shown below.

Table 4.17-1 Wastewater Treatment Capacity, Ventura County

| Agency | Total Number of Connections | Rated Capacity (MGD ¹) | ADWF ² (MGD) | Treatment Level |
|---------------------------------------------------|----------------------------------------------|------------------------------------|-------------------------|-----------------------------------------|
| County Service Area No. 29 | 307 | N/A | 0.085 | Tertiary |
| County Service Area No. 30 | 274 | N/A | 0.2 | Tertiary |
| County Service Area No. 32 | N/A | N/A | N/A | N/A |
| County Service Area No. 34 | 1,364 | N/A | N/A | Tertiary |
| Camarillo Utility Enterprise | 57 | N/A | 0.0356 | Tertiary |
| Todd Road Jail | N/A | 0.08 | 0.044 | Secondary |
| Ventura County Waterworks District No. 1 | 10,000 (37,000 population) | 5 | 2 | Tertiary |
| Ventura County Waterworks District No. 16 | 544 (2,000 population) | 0.5 | N/A | Secondary |
| Camarillo Sanitary District | 70,000 (population, city and unincorporated) | 7.25 | 4 | Tertiary |
| Ojai Valley Sanitary District | 20,000 (customers) | 3 | 1.4 | Tertiary |
| Saticoy Sanitary District | 271 | 0.25 | 0.1 | Secondary |
| Triunfo Sanitation District | 12,300 | 16 | 9 | Tertiary |
| Camrosa Water District | 6,900 | 1.5 | 1.4 | Tertiary |
| Channel Islands Beach Community Services District | 1,800 | N/A | N/A | N/A |
| City of Oxnard | 40,000 | 32.7 | 47.20 | Tertiary <u>Secondary</u> |
| City of Simi Valley | 40,000 (527 unincorporated) | 12.5 | 7.8 | Tertiary |
| City of Thousand Oaks | 130,000 (population) | 14 | 8 | Tertiary |
| City of Ventura | 25,528 | 14 | 7.1 | Tertiary |

Notes: N/A= data is not available because the County does not provide sewer service or treatment; MGD=Million Gallons per Day; ADWF=Average Dry Weather Flow.

Source: Appendix B (Table 7-2) with updated service connection numbers from Public Works Agency Water and Sanitation customer database and updated treatment plant levels provided by Joseph Pope, Director, Water and Sanitation Department.

In addition, Ventura County Water Works District No. 38 has been added to Table 4.17-2 on page 4.17-15, as indicated below.

Table 4.17-2 Existing Water Supplies and Demands

| Watershed | Municipal Water Suppliers | Other Water Suppliers | Water Supplies | Annual Water Demand |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Ventura River | Casitas Municipal Water District Ventura Water Golden State Water Company Ventura River Water District Meiners Oaks Water District | 11 mutual water companies | 23,051 AF Surface Water 14,600 to 21,300 AF Groundwater (37,700 – 44,400 AF total) | 32,700 AF |
| Cuyama | None | None | 22,000 AF | 10,000 AF agriculture/8 AF domestic |
| Santa Clara River | Castaic Lake Water Agency City of Fillmore City of Oxnard City of Santa Paula United Water Conservation District Ventura Water | 74 smaller water systems and irrigation companies | 12,000 AF Imported Water 10,200 to 19,700 AF Recycled Water 136,400 to 171,000 AF Groundwater (158,400 – 202,700 AF Total) | 182,600 AF |
| Calleguas Creek | Calleguas Municipal Water District City of Simi Valley/Ventura Co. Waterworks City of Oxnard City of Thousand Oaks City of Camarillo Port Hueneme Water Agency Camrosa Water District Ventura County Waterworks District No. 1 Ventura County Waterworks District No. 19 <u>Ventura County Water Works District No. 38</u> Triunfo Water and Sanitation District California American Water Company – Ventura District California Water Service Company – Westlake District Golden State Water Company – Simi Valley Pleasant Valley Mutual Water Company Crestview Mutual Water Company Zone Mutual Water Company | 52 small water systems and irrigation companies | 11,324 AF Surface Water 119,417 AF Imported Water 13,931 Recycled Water 51,300 to 82,300 AF Groundwater (196,000 – 227,000 AF total) | 224,660 AF ¹ |

Note: AF=acre-feet.

1: Calleguas Municipal Water District imports water into the watershed through the State Water Project to meet basin demand in most years.

Source: Appendix B

Mitigation Measure UTL-1 on page 4.17-18 is revised as follows:

Implementation Program WR-X: Demonstrate Adequate Water Supply during Normal, Single-Dry, and Multiple-Dry Years

Water-demand projects (as defined in Section 15155 of the State CEQA Guidelines) that require service from a public water system shall prepare a water supply assessment prior to project approval. If the projected water demand associated with the project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment must address the public water system's total projected water supplies available during normal, single-dry, and multiple-dry water years for a 20-year projection. The assessment shall describe if the new water service will be sufficiently met under this 20-year projection. The water supply assessment shall be prepared to the satisfaction of and approved by the governing body of the affected public water system and the County. ~~If, as a result of its assessment, the public water system concludes that its water supplies are, or will be, insufficient, the public water system shall provide to the County its plans for acquiring additional water supplies.~~ A water-demand project that includes a new water service from a public water system shall not be approved unless adequate water supplies are demonstrated.

3.22 REVISIONS TO CHAPTER 5: CUMULATIVE IMPACTS

No revisions have been made to this chapter of the draft EIR.

3.23 REVISIONS TO CHAPTER 6: ALTERNATIVES

To provide clarification, the description of Alternative 2 in the third paragraph under in Section 6.5.2, "Alternative 2: Existing Community and Urban Area Designations Alternative," on page 6-15 is revised to read:

However, the land use diagram of this alternative would be different from the 2040 General Plan in the following ways. ~~Very Low Density or Low Density Residential lands outside of the Existing Community area designation (boundary) and Urban area designation (boundary) would remain the same as under the 2040 General Plan.~~ Very Low Density or Low Density Residential lands located within the Existing Community area designation (boundary) and Urban area designation (boundary) would be designated as Medium-Density Residential or Residential High-Density.

3.24 REVISIONS TO CHAPTER 7: OTHER CEQA CONSIDERATIONS

No revisions have been made to this chapter of the draft EIR.

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CHAPTER 1 INTRODUCTION

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CHAPTER 2 COMMENTS AND RESPONSES TO COMMENTS

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CHAPTER 3 REVISIONS TO THE DRAFT EIR

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5 REPORT PREPARERS

Ventura County (Lead Agency)

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Kim Uhlich Senior Planner
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GHD (Transportation)

Jim Damkowitch Senior Project Manager

Mintier Harnish (2040 General Plan)

Rick Rust, AICP, GISP Principal Planner

Americorps, CivicSpark Program

Lynn Socha Climate Fellow
Carrie Simmons Climate Fellow

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Downing, Clay

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Saturday, January 25, 2020 2:02 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

dawn kuznkowski

Contact Information:

2361 Calle Malvon Thousand Oaks CA 91360

Comment On:

resources/open space/conservation

Your Comment:

I am very concerned that Ventura County is not taking drastic enough steps to protect our drinking water, and air quality from contamination from the oil industry. In a time of drought we should have a moratorium on fracking. Flaring is contaminating our air and it's avoidable and there are solutions. Sadly it's business as usual even though our air quality and water quality are continually suffering from the oil industry. We need forward thinking in our general plan to tackle climate change and really make a measurable difference. Please phase out fossil fuel production, maintain policy COS-7.8 and protect our finite water supply, and our air quality. Thank you. Dawn Kuznkowski

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Monday, January 27, 2020 10:24 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Katharine S Simmons

Contact Information:

kay56094@gmail.com

Comment On:

New Draft Environmental Impact Report

Your Comment:

According to a recent study of data by the Washington Post Ventura County ranks as the fastest-warming county in the Lower 48 states.

It is critical that Ventura County gets its climate policies RIGHT in the General Plan Update. The draft plan as currently written fails to meet requirements for streamlined CEQA review.

Please take the following actions:

- 1. Buffers should be increased from the currently 1,500 feet to 2,500 feet
- 2. Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking
- 3. Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.
- 4. Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions
- 5. The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents

I2-1
I2-2
I2-3

Thank you for your time and attention to this most important issue.

Katharine Simmons

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Tuesday, January 28, 2020 8:38 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Kristen Kessler

Contact Information:

kess4652@gmail.com

Comment On:

Gen. Plan Update and DEIR

Your Comment:

The General Plan Update does not set strong enough goals to reduce GHG emissions, and should follow the example of the L.A. Sustainability Plan.

The DEIR should allow oil and water to be transported by pipelines instead of diesel trucks to reduce air pollution in vulnerable communities.

Flaring should no longer be allowed, except in emergencies or testing.

Oil and gas facilities in the county listed as "superemitters" should no longer be allowed to operate.

Ventura County is the fastest warming county in the lower 48 states. The provisions in the draft plan are inadequate to address this warming trend.

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Saturday, February 1, 2020 9:44 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Karen Socher

Contact Information:

kssocher@hotmail.com

Comment On:

All of it

Your Comment:

I feel we should set policy driven by reducing climate change and the draft update does not provide enough emissions reduction.

We can and should do better.

The CAP addresses the consumption side by encouraging electric fuel vehicles and clean power for homes and businesses. It does not address the production side at all. Ventura County is the third largest oil and gas producing county in California. As such, we must do our part to reduce oil production through thoughtful, rigorous policy to phase out production.

This CAP will set the policies that will drive land use decisions and projects that affecting GHG emissions for the next 20 years. The planet depends on each county, municipality and country to do this right.

We need an expert team that will produce a plan that will meet the greenhouse gas emission reduction goals.

The General Plan needs to reduce emissions that harm people and the planet.

The Los Angeles Sustainability Plan, aimed at meeting the goals of the Paris Climate Agreement, has clear and bold goals: "By eliminating fossil fuel production in the county, including drilling, production and refining, the county will protect its residents from harmful local pollution that inequitably burdens low-income communities and communities of color."

And this comes from the second largest oil-producing county in California. We need a similar goal for Ventura County.

Another goal from the LA Plan: "Collaborate with DOGGR and unincorporated communities and affected cities to develop a sunset strategy for all oil and gas operations that prioritizes disadvantaged communities." Ventura County needs to do the same.

Climate change is caused by fossil fuel production and consumption.

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Sunday, February 2, 2020 11:08 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Polly Nelson

Contact Information:

pollynelson4@gmail.com

Comment On:

Buffer Requirements, Trucking vs. Pipeline, Flaring, Climate Action Plan, Greenhouse Gas "Super- Emitters, Ojai

Your Comment:

- *Buffer Requirements – Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet.
- *Trucking vs. Pipeline - Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.
- *Flaring – Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.
- *Climate Action Plan – Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.
- *Greenhouse Gas “Super-Emitters” – The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.
- *For Ojai - The 2040 General Plan must include a strong defense of the five-pound air emissions limit for the Ojai Valley. All projects subject to CEQA review must include an evaluation of the totality of air emissions in order to understand and mitigate the impacts to local air quality.

3152 Shad Court
Simi Valley, CA 93063
February 5, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Avenue., L #1740
Ventura CA 93009-1740

Re: The 2040 General Plan Update's Draft Environmental
Impact Report's Public Review Period.

Dear Ms. Curtis:

The following comments, questions, and suggestions address Section 4.9(Hazards, Hazardous Materials and Wildfire) of the Draft EIR's Chapter 4(Environmental Setting, Impacts, and Mitigation Measures). My concerns come not from the study of or employment in these fields, but from life's experiences: years of attending Santa Susana Field Laboratory(Rocketdyne) meetings, addressing City, County, State and Federal government emergency plans, and following wildfire incidents since 2003 in the news on television, newspapers, and now the Internet. More devastating than the devastation left behind by the extraordinary disasters is the public's perception that first responders will always rise to the occasion to save lives, property, businesses, jobs, ecosystems, and California!!!! Nothing could be further from the truth!!!!

#1 - Pages 4.9-2 and 4.9-3, while the Thomas Fire(2017) and Woolsey Fire(2018) are mentioned, so should the the Hill Fire(2018), and the October 30, 2019 Easy Fire be included in the 2040 General Plan Update! Overwhelming stress on first responders has been attributed to the major incidents occurring: all at once, back-to-back, during hurricane strength winds, and in an all year fire season!!!!

#2 - Page 4.9-2, the Ventura County Fire Apparatus Access Code "establishes the minimum and cumulative design and maintenance standards for emergency fire access roads"!!!! First responders will be able to truly respond effectively to and keep people and property safe when maximum standards are the norm!!!!

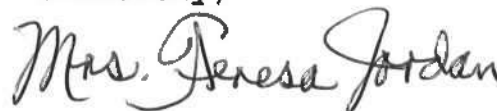
- #3 - Page 4.9-6, Policy HAZ-1.1, the City of Simi Valley back in the 1990's required a Fire Safety Plan for the Big Sky development project. The County must require similar planning documents for proposed development in high fire risk areas!!!!
- #4 - Page 4.9-6, Policy HAZ-1.2, the Ventura County Fire Department's defensible space clear zones is 100', in some cases 200'. Devastating fires show this does not limit the damage from flying embers!!!! In the California Governor's Office 2004 Blue Ribbon Fire Commission's Westlake Village hearing a more comprehensive defensible space was 400'!!!! The Ventura County Fire Department's Fire Hazard Reduction Program(FHRP) must be implemented twice or three times a year to be effective!!!! Are grants available to those property owners who cannot afford additional clean-ups? Include public donations made through Go Fund Me type programs, or by check!!!!
- #5 - Page 4.9-6, Policy HAZ-1.3, are controlled burns truly going to be undertaken? Such clearings would have limited the devastation from the Thomas Fire in Ventura County and Santa Barbara Counties!!!! Was this the same case with the Hill and Woolsey Fires?
- #6 - Page 4.9-6, Policy HAZ-1.4, while I concur with having a Notice of Fire Hazard recorded "with the County Recorder for all new discretionary entitlements(including subdivisions and land use permits) within areas designated as Hazardous Fire Areas by the Ventura County Fire Department or High Fire Hazard Severity Zones by the California Department of Forestry and Fire Protection(CAL FIRE)" more has to be done to inform the public of this! What information is contained in a Notice of Fire Hazard? What law makes the NOTICE a legal document?
- #7 - Page 4.9-6, Policy HAZ-1.5, see COMMENTS 2, 3 and 4! In updates of the County's EOP and the Multi-Hazard Mitigation Plan, the "Team" must include County Planning Commission, and SSFL representatives!!!! Require water trucks on large lots!!!! Such vehicle was instrumental during the 2003 Simi Fire in saving a family's life!!!! Is the County's Emergency Operations Plan truly updated on a tri-annual basis? Evacuation routes must never be second guessed!!!!

- #8 - Page 4.9-6, Policy HAZ-1.6, *New Policy*, I concur!
Because people think that "fire safe" means safety
the education programs and information must state
"fire wise"!!!!
- #9 - Page 4.9-6, Policy HAZ-1.7, *New Policy*, I concur!
- #10 - Page 4.9-6, Policy HAZ-1.8, *New Policy*, I concur!
Update of the Santa Monica Mountains Community
Wildfire Protection Plan adopted in 2013 was
supposed to be updated in 2018!!!! What is the
update status of this crucial document?
- #11 - Page 4.9-7, Policy HAZ-5.2, in January, I learned
about the closed Tierra Rejada Landfill's Easy Fire
damage to the gas extraction system(methane), flare
controls, etc.! I have not found the Landfill in
the 2040 General Plan Update and 2018 Background
Report! Because the Landfill's Consortium partners
(4) share costs equally for after closure permit
work, and now for the Easy Fire Emergency repairs
(\$548,554 each), the "66-acre site located 1 mile
west of Madera Road and north of Tierra Rejada Road
along the Arroyo Simi must be included in the 2040
General Plan Update!!!!
- #12 - Page 4.9-7, Policy HAZ-5.3, *New Policy*, I concur!
- #13 - Page 4.9-7, Policy HAZ-5.4, *New Policy*, I concur!
- #14 - Page 4.9-7, Policy HAZ-5.7, *modified*, I concur!
Because the Tierra Rejada Landfill's waste footprint
is 26 acres, it's quite possible that future
development could occur on the 66-acre site!!!!
- #15 - Page 4.9-9, Policy HAZ-12.1, *modified*, I concur with
two means of access! I do not concur with deviation
policy for a single proposed access road!!!!
- #16 - Page 4.9-9, Policy HAZ-12.2, *modified*, the update to
the Ventura County Emergency Operations Plan must
state "tri-annually"!!!! The update to the Ventura
County Hazard Mitigation Plan must state "every
five years"!!!!

- #17 - Page 4.9-9, Policy HAZ-12.3, *modified*, interesting that public safety or emergency service facilities should not be sited in the areas listed without hazard mitigation, yet there is no mention of Open Space areas in light of Page 4.9-11 (bottom of page) which allows fire stations in the Open Space land use designation!!!!
- #18 - Page 4.9-20, what is the status of the MHMP's "new vegetation management program that provides vegetation management services to elderly, disabled, or low-income property owners who lack the resources to remove flammable vegetation from around their homes" mitigation strategy? Do mobile homes qualify? First responders going door-to-door to alert people during a fire incident must always be utilized even in the age of technological communications!!!!
- #19 - Because the 2040 General Plan Update's January 2018 Background Report has been "Revised" for January 2020, the name "Santa Felica" (Dam) must be corrected to read "Santa Felicia" on Page 11-29, Figure 11-6, Individual Dam Failure Inundation Areas!!!!

Ms. Curtis, I kindly request a written response from County staff to my letter. Thank you.

Sincerely,



Mrs. Teresa Jordan

Enclosures:

January 27, 2020, Letter to the Simi Valley City Council, Agenda Item 8A. (2 Pages)

January 30, 2020, Letter to the Ventura County Board of Supervisors, Agenda Item 31. (3 Pages)

January 21, 2020, Letter to the Ventura County Board of Supervisors, Agenda Items 39 and 40. (2 Pages)

RECEIVED
CITY OF SIMI VALLEY 3152 Shad Court
Simi Valley, CA 93063
2020 JAN 27 AM 10:36 January 27, 2020

OFFICE OF CITY CLERK
BY *Linda Shortell*

Simi Valley City Council
Simi Valley City Hall
2929 Tapo Canyon Road
Simi Valley, CA 93063

Re: Agenda Item 8A (Approval of Funding for Emergency Work Performed and Planned at the Tierra Rejada Landfill and Approval of a Supplemental Budget Request).

Dear Members of the Council:

I am writing because I have concerns regarding the closed Tierra Rejada Landfill site's gas extraction system, and the flare controls!!!!

Members of the Council, shortly after the October 30, 2019 Easy Fire I heard from a constituent of yours, who had driven home on Tierra Rejada Road, that there was another fire!!!! Even though my family was mourning the death of a loved one, I Googled fires around Tierra Rejada Road but found no reports of any additional incidents!!!! While the Staff Report validates your constituent's story, the information paints a very shocking picture!!!!

It is stated on Page 6 (Staff Report) that "Following the Easy Fire, staff" "responded to several small surface fires that continued to burn on the site for a few days"!!!! "These surface fires were confined to small areas approximately eight feet by eight feet and to the upper six inches of the surface. Their behavior was more of a slow, smoldering event right at the surface rather than the active flames that consumed the brush onsite on the first day"!!!! "Staff, through the help of contractors, dug out the shallow surface fires, extinguishing them with water, and repaired the areas with moist conditioned soil"!!!! "Active monitoring continued around these hot spots for several days to verify that ground temperatures were normal. Environmental monitoring of the gas wells in the vicinity of these areas was conducted to verify that the fire had not entered the landfill's buried waste mass"!!!! Several small surface fires burning for a few days is alarming!!!!

QUESTIONS

1. Was the flare active before and during the Easy Fire?
2. Did the flare contribute to the Easy Fire's intensity from the closed Tierra Rejada Landfill and beyond?
3. Did the small flames, and surface fires pose any danger to the drivers and property owners in the vicinity of the Tierra Rejada Landfill's 66-acre site? How many small fires were there? How many days did this occur?
4. Does the flare pose any fire danger in and of itself?
5. Do we have a health problem because of the methane gas?
6. Can the flare system resist hurricane strength winds?
7. Where are the Tierra Rejada Landfill documents kept?

Members of the Council, the City should have alerted the public to the presence of these fires!!!!

Members of the Council, I kindly request that the Police Department's Emergency Services' Emergency Plan Website Page be updated ASAP to reflect the 2020 Tentative Schedule!!!!

Members of the Council, I kindly request a written response from City staff to this letter. Thank you.

Sincerely,


Teresa Jordan

Enclosure:

January 21, 2020, Letter to the Ventura County Board of Supervisors Agenda Items 39 and 40 (Hill and Woolsey Fires After-Action Reports). (2 Pages)

County of Ventura

3152 Shad Court
Simi Valley, CA 93063
January 30, 2020

JAN 30 2020

Clerk of the Board

Ventura County Board of Supervisors
Hall of Administration
800 S. Victoria Avenue
Ventura, CA 93009

Re: Agenda Item Authorization for the Integrated Waste Management Division of the Public Works Agency to Pay the Ventura Regional Sanitation District \$548,554 from the Solid Waste Trust Fund for Easy Fire-Related Repair Costs at the Tierra Rejada Landfill; and Authorization for the Auditor-Controller to Process the Necessary Budgetary Transactions; Supervisorial District No.4.

Dear Members of the Board:

On January 27, 2020, I submitted a letter to the City of Simi Valley City Council for its January 27, 2020 meeting to fund the Tierra Rejada Landfill emergency work (Agenda Item 8A). The following is a list of topics discussed by the City Council members and City staff during the Agenda Item:

- City's fire insurance coverage.
- CAL OES and FEMA are not met.
- Causes of the Easy Fire.
- Fire Department's fire incident report.
- Letter submitted by Teresa Jordan.
- Health issues from methane gas.
- Location of Tierra Rejada Landfill records.
- Fire protection priority for the landfill.
- Fire response to the Reagan Presidential Library.
- The loss of family homes.
- Fire Department considered the site brush clearance.
- Fire Department probably not know landfill was there.
- Place signage on the landfill site.
- Visiting firefighters do not know landfill is there.
- Put fencing around the landfill site.
- Include the landfill on County maps.
- Notify the public regarding such activity.

Members of the Board, on January 29, 2020, I read the Ventura Regional Sanitation District's December 19, 2019 Special Meeting Staff Report for the Emergency Wildfire Response at the Closed Bailard and Tierra Rejada Landfills (Agenda Item 5). The information for the Bailard Landfill (Page 2) stated "In order to help fund the remediation work from this unexpected fire event, VRSD is pursuing potential funding from insurance" (Olivas Fire, October 11, 2019).

QUESTIONS

1. Why was no insurance information given for the Tierra Rejada Landfill?
2. Do each of the Consortium partners have to pursue potential funding from their own insurance carriers?
3. Is the landfill site on the Fire Department's mapping system (Robby to the Rescue's "Who sends resources when a fire breaks out?" video covers the computer based dispatch system in Camarillo)?
4. Is the computer based dispatch system the same as the Automated Vehicle Locating system (AVL), or is it one type of activity in the facility?
5. How many surface fires were on the Tierra Rejada Landfill?
6. How many days did it take to put out the small fires?
7. Does the methane gas pose a health risk?
8. Was the flare active before the Easy Fire?
9. Does the flare pose any fire danger in and of itself?
10. Can the flare system resist hurricane strength winds?
11. Would fencing around the landfill site impact the wildlife corridor?

Members of the Board, investigations must be conducted on the cause of: 1. the errors on the location of the 2017 Thomas Fire in your 2018 Resolutions, 2. the errors in the

November 9, 2018 Sheriff Office's Emergency Proclamation's Hill Fire location, and Hill and Woolsey Fires incident date, and 3. the Sheriff Office's November 1, 2019 Emergency Proclamation's misleading information for the Easy Fire's location!!!! Crucial legal documents must be error free!!!!

Members of the Board, I kindly request a written response to this letter from County staff. Thank you.

Sincerely,



Teresa Jordan

Enclosure:

January 27, 2020, Letter to the Simi Valley City Council.
(2 Pages)

3152 Shad Court
Simi Valley, CA 93063
January 21, 2020

Ventura County Board of Supervisors
Hall of Administration
800 S. Victoria Avenue
Ventura, CA 93009

Re: Agenda Items 39 (Receive and File the Hill and Woolsey Fires Emergency Response After-Action Review Report), and 40 (Receive and File the 2019 Hill and Woolsey Fire Recovery Review Report; Approve the Improvement Plan Contained Within the Report; and Provide Recommendations and Direction to Staff to Incorporate into the Improvement Plan).

Dear Members of the Board:

It is unfortunate that for the past 2 years my concerns, comments, and suggestions regarding wildfire incidents have fallen on deaf ears!!!!

It is offensive that fire incidents' after-action reports expect the people (homeowners, residents, and business and property owners) to do more to help fight "mega" fires when all populations throughout the Nation are unaware that:

- #1 - For decades, state and local governments were supposed to include in their emergency plans' updates "WORST CASE" scenarios!!!!
- #2 - For years, the Country has experienced drought conditions throughout the States!
- #3 - For years, the United States has been experiencing an unprecedented shortage of firefighters!!!!

Members of the Board, it is unfortunate that County staff never responded to my extremely crucial questions made in my letters on the County's 2018 General Plan Update's chapters mentioning "wildfires", "Ventura County Fire Department" and "Ventura County Fire Protection District"!!!!

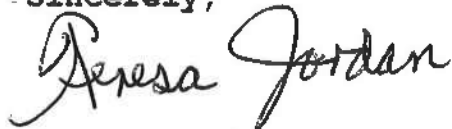
Members of the Board, it is unfortunate that the County never corrected the December 4, 2017 Thomas Fire incident location error in your Resolutions (brought to your attention in my many 2018 letters), because you approved major errors in the Sheriff Office's November 9, 2018 Hill and Woolsey Fires Emergency Proclamation which stated "the Hill Fire originated in the vicinity of Santa Susana Road and Hill Canyon on April 8, 2018 at 2:06 p.m., and the Woolsey Fire which originated in the unincorporated area of Simi Valley the same day at 2:26 p.m. at which time the Ventura County Board of Supervisors was not in session, and said conditions constitute a local emergency as defined in Government Code section 8558, subdivision (c)" (my January 4, 2019 letter, Agenda Item 39)!!!! The November 1, 2019 Sheriff Office's Emergency Proclamation for the Simi Valley Easy Fire incident location stated "that started in the vicinity of Tierra Rejada Park in Simi Valley at 6:10 a.m. on October 30, 2019, subsequently referred to as the Easy Fire" was misleading!!!! Because the City of Moorpark has a Tierra Rejada Park, the CAL FIRE incident information should have been provided!!!!

Members of the Board, answers to my questions, and corrections to the emergency related documents you approved would have been helpful in limiting the loss of jobs, lives, property, and ecosystems; and help limit the disruption that Ventura and Los Angeles counties' communities experienced!!!!

Members of the Board, please heed all recommendations in the November 11, 2019 City of Thousand Oaks, the November 17, 2019 County of Los Angeles, and the January 2020 Ventura County after-action response plans; in the January 2020 Ventura County Hill & Woolsey Fires Recovery After-Action Review; and in the December 2019 California Auditor's California Is Not Adequately Prepared to Protect Its Most Vulnerable Residents From Natural Disasters REPORT (#2019-103)!

Members of the Board, I kindly request that County staff respond to my April 29, 2019 letter (Agenda Item 24, the 2019 Ventura County Disaster Recovery Plan). Thank you.

Sincerely,



Teresa Jordan

Dulanie Ellis-La Barre
206 So. Blanche St., Ojai, CA 93023

REC'D FEB 06 2020

February 3, 2020

RMA Planning Division, General Plan Update
800 So. Victoria Ave., L#1740
Ventura, CA 93009-1740

According to a recent study of data by the Washington Post, with an average temperature increase of 2.6 degrees Celsius since preindustrial times, **Ventura ranks as the fastest-warming county in the Lower 48 states.** The effects of climate change have impacted Ventura County profoundly — from the wildfires which have raged out of control to coastal infrastructure now threatened by sea-level rise.

We need to do better ... faster! Years of committee meetings must translate into action now. **The Climate Action Plan (CAP) is seriously incomplete** and lacks the technical and scientific input needed for a meaningful CAP. We are calling for a sense of urgency and an "all-hands-on-deck" effort to get it right. The county should contract immediately with a team like those employed by the city and county of Los Angeles in order to produce a robust plan capable of meeting the greenhouse Gas (GHG) emission reduction goals. At the same time, we must strengthen individual policies in the General Plan.

Climate change is caused by fossil fuel production and consumption. **Ventura County is the third largest oil and gas-producing county in California.** As such, we must do our part to reduce oil production through thoughtful, rigorous policy to phase out production.

This CAP will set the policies that will drive land use decisions and projects that affecting GHG emissions for the next 20 years. The planet depends on each county, municipality and country to do this right.

Climate Action Plan policies must result in measurable, enforceable reductions sufficient to meet California's climate goals. We've had enough of vague, inspirational slogans like "encouraging" or "supporting" green policies, but little to no actions on the ground.

A recent NASA study documents that several Ventura County facilities, including **oil and gas operations, are "super-emitters" of powerful climate pollutants.** Stationary source emissions, including those from oil and gas operations, make up approximately 26 percent of all emissions in California. The time for rubber-stamping oil and gas projects needs to end. We need to phase out these "super-emitters" fossil fuel operations in Ventura County. We have plenty of sun and wind to build energy grids upon, creating new green jobs.

The Ojai Valley, where I live, is known for airflow patterns that lock in airborne pollutants during the day, trapped in the Valley. The 2040 General Plan must strongly **defend the 5-pound air emissions limit for the Ojai Valley.** And buffers between oil and gas facilities and residential and schools should be increased from 1,500 to 2,500'.

805-640-1133 Fax: 805-640-7899 Cell: 805-798-0158
dulanie@sbcglobal.net

Dulanie Ellis-La Barre
206 So. Blanche St., Ojai, CA 93023

Flaring is another, frankly, insane practice in today's climate change crisis. It should be allowed only in case of emergencies or testing purposes. The new General Plan **MUST maintain Policy COS-7.8**, as recommended by the Board of Supervisors, so that wells are required to collect gases and use or remove them. The complaint about addressing this being "too costly" from the fossil fuel industry has always, and will always, be their excuse and failure to help right this self-caused crisis. ***Frankly, Ventura County should immediately begin phasing out all fossil fuel development and production, given that we are the fastest warming county in the entire country!***

Fracking must be abandoned in Ventura County - if for no other reasons than FRACKING REQUIRES ENORMOUS USE OF WATER and contaminates aquifers. The droughts are only going to get worse, we cannot afford to destroy our water sources because of fracking - not to mention the role fracking plays in prompting earthquakes. We have enough to worry about without encouraging more earthquakes in Southern California.

Ventura County, for all its beauty and fertility of land and sea, has been in bed with the oil and gas industry, in the drilling and agricultural pesticides, for far too long and at great cost to our home environment and the future of life as we know it in Ventura County.

For example:

- A 2-day 'heat bomb' last year wiped out the avocado and citrus harvests in Ojai
- Rivers are drying up: Ventura has been over-drafting their water supply from the Ventura River at Foster Park for years and is blaming Ojai (who cut their water use by 40%)
- With sea level rise, we can expect saltwater intrusion (already a problem) to inundate the Oxnard Plain and devastate food production.
- Oxnard and Ventura coastal residential areas and harbors will be flooded.
- The Navy base is already trying to prepare for sea rise and impact to military abilities
- Wildfire storms will continue to devastate wild lands and our communities

Climate change is no longer theory. Our General Plan must be a robust response. We must implement rigorous, measurable, immediate steps in our General Plan if we are to the very real challenges we face.

With great expectation that you will respond favorably, we remain,
Sincerely yours,

Dulanie & Douglas La Barre



805-640-1133 Fax: 805-640-7899 Cell: 805-798-0158
dulanie@sbcglobal.net

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Sunday, February 9, 2020 7:03 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Jeannette Welling

Contact Information:

2450 Pleasant Way Unit Gm Thousand Oaks, CA 91362

Comment On:

Draft Environmental Impact Report

Your Comment:

Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet.

Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.

The DEIR would allow flaring if conveyance by pipeline is deemed infeasible, creating another loophole that could allow oil producers to simply claim that the cost is too high and continue with business as usual.

Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Monday, February 10, 2020 8:09 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

John Brooks

Contact Information:

None

Comment On:

Draft EIR

Your Comment:

The Climate Action Plan isn't good enough.

Ventura County needs a Climate Action Plan with measurable targets and outcomes, as a separate document.

Policies set in the GenPlan are not measurable or enforceable. Language used in the plan, such as policies that "encourage" and "support" action, are not sufficient to drive the kind of change necessary to meet greenhouse gas reduction targets.

I am calling for a separate Climate Action Plan to fill the gaps in the draft General Plan: The county decided not to have a separate Climate element of the General Plan, and instead integrated climate-related policies into the other elements, such as "Land Use" and "Housing." Climate policies are included among these different sections, and compiled in Appendix B of the Plan. Climate was not the primary focus or concern, and these groups lacked the expertise to put forward adequate, science-backed climate policy to guide the next 20 years.

Bigger Buffer Requirements

The current plan allows for oil and gas facilities to be located too close to schools and homes.

The current draft plan sets a 1500 ft minimum between oil & gas facilities and homes and schools. This is completely inadequate. The negative health impacts of emissions can be seen as much as a mile away from facilities. We are demanding a minimum 2500 ft. (~half a mile) distance from schools and homes for new oil & gas projects.

We must Stop Trucking Oil

All newly permitted oil wells should be required to transport oil & wastewater via pipelines, not trucks.

Most of the oil and wastewater produced from drilling is transported by trucks. These trucks go through or near our neighborhoods carrying hazardous materials, emitting toxic air pollution, and contributing significantly to the addition of greenhouse gases. The current plan protects oil companies by giving them the loophole to default to additional trucking, instead of installing pipelines if oil companies claim the cost of pipeline connection is too high.

The wasteful Flares must stop

I am calling for no new flares in Ventura County.

Flares waste a finite natural resource that can be used for energy production. Venting and flaring release toxic gases and powerful climate pollutants like methane into the atmosphere. Under the proposed general plan oil companies would

be allowed to continue venting and flaring without restrictions, if they claim the added cost of treating gas on-site or constructing pipeline connections is too high; this technicality lets oil companies carry on with business as usual. Instead, join us in insisting that flaring and venting in all new oil wells be prohibited, except in cases of emergency or testing purposes.

Thank you

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Monday, February 10, 2020 9:42 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Rain Perry

Contact Information:

mizzperry@gmail.com

Comment On:

draft for public comment of 2040 general plan

Your Comment:

Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet.

Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.

Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

Simmons, Carrie

From: Swift, Rebecca
Sent: Friday, February 14, 2020 4:46 PM
To: General Plan Update
Cc: Bennett, Steve
Subject: watershed

In light of the litigation the city of Ventura has began as a counter suit against the Santa Barbara Channel Keepers, I am EXTREMELY concerned that the County of Ventura should also be very worried. I reside in the County of Ventura, work for the County of Ventura and was served by the City Of Ventura. With all the overlap of city and county PLEASE review any and all watershed documents that may have been proposed and placed on the "back burner" in anticipation that this issue will eventually include the County Of Ventura. Water rights, clean water availability, federal government, State and local ordinances do have to be considered as we look forward to the year 2040

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Friday, February 14, 2020 11:52 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Susan Chapin

Contact Information:

8056493506

Comment On:

Draft Environmental Impact Report

Your Comment:

revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions. The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

Simmons, Carrie

From: John Brooks <johnbrooks69@gmail.com>
Sent: Monday, February 17, 2020 1:01 PM
To: General Plan Update
Subject: One more thing

This preface by Oxnard resident Steve Nash sums up the feelings of many that the EIR is not sufficient:
“The entire assumption of a General Plan and its supporting documentation is to have a forward-looking plan to deal with land use, potential significant impacts and their mitigation measures within a geographical area.

It is my belief, and the belief of many others, that climate disruption caused by greenhouse gas emissions is the primary concern that has to be addressed in this type of document. Any plan that attempts to provide a framework for mitigating significant impacts that does not place climate change at the very forefront of significant impacts is a deeply flawed document and doomed to fulfill its “raison d’etre” which, ultimately, is to secure a safe and prosperous future for the residents and the environment under its jurisdiction.”

Get busy formulating a real climate action plan!

John Brooks
Oak View

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Tuesday, February 18, 2020 12:21 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

John Cloonan

Contact Information:

johncloonan@yahoo.com

Comment On:

The responsibility of the Board decision to support the constituents not commerce.

Your Comment:

Sunday, February 16, 2020

Re: Draft General Plan and DEIR

Ventura County Board of Supervisors:

I am urging you to take meaningful action on the above documents coming before you that are schedule to have the public comments close this 27th.

Your physical and mental health and the health of your constituents as well as others in California, and indeed our global family are at stake when you make your decisions. Meaningful, measurable enforceable reductions to meet California's climate goals are necessary.

California's perspective, guidelines and procedures are antiquated as are our County's own. It is necessary for you as individuals and as a Board, to take serious and bold measures to reel in the oil industry. Oil has had its day and stockholders have benefitted nicely. Ventura County and its citizens have benefitted from the oil industry, also. But the County, State, and Nation have suffered the health and climate consequences of lax regulation. Even if technology finds a "clean burn" solution - the end of oil can be expected.

The Los Angeles Sustainability Plan, aimed at meeting the goals of the Paris Climate Agreement, has clear and bold goals: "By eliminating fossil fuel production in the county, including drilling, production and refining, the county will protect its residents from harmful local pollution that inequitably burdens low-income communities and communities of color." And this comes from the second largest oil-producing county in California. We need a similar goal for Ventura County.

I realize there are challenges you all face in this threading the needle legal world. It falls to you to do so for the sake of

those with lives on the line in a polluted world. We will all ultimately benefit from measurable, enforceable reductions sufficient to meet California's climate goals. It is clear to me, and I suspect to you in your personal quiet times of contemplation, that in the final analysis, there is an overriding benefit to the population of this county for the adoption of the strongest possible measures to insure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

All the best.

John

John Cloonan
31 N Laurel St #1
Ventura, CA 93001-5066
johncloonan@yahoo.com

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 19, 2020 1:30 PM
To: Simmons, Carrie
Subject: FW: Please make strong climate policy!

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Christopher Tull <info@email.actionnetwork.org>
Sent: Wednesday, February 19, 2020 9:46 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Please make strong climate policy!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather. I want strong climate policy and a goal to be carbon neutral by 2045.

My family and community are counting on you to make a strong plan that helps us mitigate climate impacts. With tipping points accelerating, we cannot go halfway! We want courageous leadership to set goals we can hang our hopes and efforts on.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

I want policies like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and effective benchmarks for reducing emissions from tailpipes.

I want an EIR that covers major climate impacts and a systematic plan that will assure carbon neutrality no later than 2045.

Thank you—

Christopher Tull

ctull17@gmail.com

446 Deodar Ave.

Oxnard, California 93030

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 19, 2020 4:40 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Jim Whitney

Contact Information:

jim.whitney@yahoo.com

Comment On:

the draft environmental impact report.

Your Comment:

The buffers for locating oil and gas facilities a safe distance from schools and homes are inadequate. Studies show adverse health impacts from oil and gas facilities at distances of at least half a mile. Buffers should be increased from the current proposal of 1,500 feet to 2,500 feet.

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 19, 2020 4:45 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Jim Whitney

Contact Information:

jim.whitney@yahoo.com

Comment On:

the draft environmental impact report.

Your Comment:

Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 19, 2020 4:58 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Jim Whitney

Contact Information:

jim.whitney@yahoo.com

Comment On:

the draft environmental impact report.

Your Comment:

Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

/Users/Blackfoot/Desktop/Screen Shot 2020-02-19 at 4.53.21 PM.png

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 19, 2020 5:02 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Jim Whitney

Contact Information:

jim.whitney@yahoo.com

Comment On:

the draft environmental impact report.

Your Comment:

Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.



The voice of business since 1949!

VCEDA's Mission Statement: To advocate for policies, legislation and programs that stimulate business and a vital economy as the foundation for a vibrant quality of life in Ventura County.

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Bruce Stenslie, EDC-VC

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

800 South Victoria Avenue, L#1740

Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

On September 10, 2019, over the objection of the Ventura County Economic Development Association (VCEDA), your board voted 3-2 against taking a closer look at how new policies and programs proposed within the new General Plan will impact our regional economy and Ventura County residents. They voted to limit the economic analysis to only a handful of programs and solely on their impact to County departmental budgets – which is in no way a complete impact analysis.

In the months that have followed that decision, numerous additional policies and programs have found their way into the draft document – all proposed by members of the Board of Supervisors, and all without vetting through the advisory committees meant to provide oversight and input into revising the County's General Plan. As has been the case throughout this process, their impacts lack adequate study.

VCEDA had hoped that the draft General Plan's DEIR would address this lack of analysis. Unfortunately, that is not the case. Therefore, **we respectfully request that the DEIR be re-circulated so that further study and analysis might take place** to address the following comments:

3.0 Project Description

3-4 Proposed General Plan Organization

The DEIR explains that the GPU establishes 15 new land use designations, the DEIR states, without support or analysis, that these designations "would be consistent with land uses and densities/intensities allowed under the current (2018) zoning designations for each affected parcel." But what does this mean? That the existing zoning designations are at or below the densities and intensities allowed by the new GPU designations? Or that the new GPU designations would not permit any additional density or intensity than the existing zoning designations? These are two wholly different things and the project description is so vague that a reader cannot determine which is occurring.

Relatedly, on page 3-5, the DEIR states that “minimum” lot sizes permitted in the zoning code will be maintained, but makes no mention of maximum lot sizes.

There are statements throughout the DEIR that allude to the GPU permitting “relatively higher intensity residential, commercial, mixed use, and industrial land uses within the Existing Community area designation and the Urban area designation” – yet nowhere in the Project Description is this expressly explained. How intense and dense? Where? What amount additional buildout will be accommodated?

3-6 and 7 Land Use Planning and Growth Management

It is apparent that the County is seeking to look to its cities to accommodate growth. This approach will necessarily increase environmental impacts within the cities and no analysis of these reasonably foreseeable potential impacts is included in the DEIR.

3-11 Housing Element

The use of the existing Housing Element as a “placeholder” is a significant flaw in the Amendment and DEIR analysis. The County is well aware that the increase in the RHNA allocation that is known to occur will significantly affect most of the other elements of the General Plan and the environmental analysis.

Not only does the decision to exclude the pending housing element result in improper piecemealing (see comment above), inclusion of a “placeholder” element results in a meaningless, inaccurate, and incomplete Project Description.

3-19 Land Use Diagram

Project Description implies that the new General Plan designations will increase density and intensity, but provide no details as to where or by how much. The DEIR reads, “Under the 2040 General Plan relatively higher intensity residential [], commercial [], mixed use and industrial land use designations would apply to approximately 1.2 percent of land in the unincorporated county.” How much higher? Where? Figures 3-2a and 3-2b are at such a large scale, it is impossible to tell where the designations are, let alone how they differ from what currently exists or in what locations additional density and intensity will be permitted. How much more development can occur as a result of these changes and what will be the potential impacts of this change? A reader has no way of knowing.

4.0 Environmental Analysis

4-1 Approach to Environmental Analysis

CEQA does not permit an agency to bury required information, that forms the cornerstone of the analysis, in a 1,000+ page appendix. The DEIR says, “The reader is referred to the Background Report for all other setting information.” Yet the BR is more than 1,000 pages long, not counting any appendices, and is not organized in a way that coincides with the chapters of the DEIR.

Background Report 3-89 to 3-90 and 3-97

Improper segmentation. Concedes that the County cannot meet post 2020 housing growth needs and commercial growth needs (see also BR 3-134), concedes that “up-zoning” would be required to meet SCAG plan housing obligations. DEIR is devoid of any analysis regarding this apparent conflict. The “up-zoning” needs to be analyzed as part of this project and this analysis.

As noted elsewhere, the underlying development potential methodology utilizes outdated (2014) RHNA numbers which effectively masks the disparity between “potential” and actual development that will take place through horizon 2040. (Burying the magnitude of land use impact)

4.11 Land Use and Planning

4.11 Thresholds of Significance

Failure to analyze internal inconsistency, or consistency between the updated GP and the existing Area Plans that are not amended. The DEIR states that Threshold 25(1) of the ISAG asks whether the project is consistent with the community character policies and development standards in the Ventura County General Plan goals, policies and programs, or applicable Area Plan. The DEIR goes on to explain that this threshold will not be considered in this DEIR because “this draft EIR is an evaluation of an update to the Ventura County General Plan goals, policies and programs, and Area Plans under which future projects would be evaluated.” However, failing to analyze this threshold means that there is no analysis of internal consistency. The Project Description chapter of the DEIR explains that very few changes are made to the Area Plans, therefore the Land Use & Planning chapter of the DEIR should consider whether the changes in the land use designations are consistent with all policies that are unchanged. See comment above regarding the Ventura Avenue Plan’s protection and expansion of oil field uses.

4.11-3 Issues Not Discussed Further

Failure to analyze internal inconsistency, or consistency between the updated GP and the existing Area Plans that are not amended. Relatedly, regarding the unchanged Area Plans, the DEIR states, without support or analysis, that “[t]he Area Plan policies and implementation programs related to these issues are consistent with the 2040 General Plan policies and implementation programs, which are addressed in the following impact discussions. Therefore, the environmental effects of the Area Plan goals and policies are not addressed separately in this section.”

4.11-4 2040 General Plan Policies and Implementation Programs

Improper segmentation. Policy LU-1.3 states that the County will work with SCAG “to direct state regional housing needs allocations predominantly to cities...” What does this mean? The RHNA methodology is already available and estimates a significant number of new units to be accommodated within the unincorporated county. Further, cities are likely to push back on their significantly higher RHNA allocations, and push those units out to the County such that the final number will likely be even greater. For all these reasons, and the ones identified in our comments on the Project Description, the entirety of the GPU should be paused until the RHNA allocations are finalized.

See also comments above regarding Background Report pp. 3-89 to 3-90, 3-97.

4.11-18 Impact 4.11-1

Failure to analyze the land use impacts (and all other impacts) associated with the new land use designations. GP 2040 creates 13 new land use categories (or 15 – see below comment regarding inconsistency within the DEIR on the Project Description) with distinct development standards—yet there is no real analysis of how the installation of 13/15 new use classes that did not previously exist would not create a conflict with uses established pursuant to the previous 6 use classes under GP 2005. Notably, the DEIR concedes that the new land use classifications will result in development at a higher intensity in locations where residential, commercial, and industrial uses exist. Yet there is no explanation of how this intensification will be accomplished to avoid incompatibility. (As has been the case throughout the DEIR, Section 4.11 consists of a laundry list of LU policies, but, when it comes to explaining the role those policies play in avoiding or mitigating a potential impact (e.g. incompatible uses), the DEIR fails to provide that critical explanation/analysis)

4.11-19 Impact 4.11.1

Vague and inconsistent project description. The analysis describes the GPU as establishing 13 new land use designations, but the Project Description says there are 15 (see page 2-6).

4.11-21 Impact 4.11-1

Vague and inconsistent project description – unsupported conclusions in the analysis regarding compatibility. The DEIR states that “Policies LU-4.1 and LU-4.2 would reduce incompatible land uses by specifying densities and/or intensities of allowed uses within each land use designation and maintaining continuity with neighboring zoning, land uses, and parcel sizes.” But neither of these policies do this, or specify densities or intensities in any way.

4.11-22 Impact 4.11-3

DEIR cannot conclude that the GPU is consistent with the RHNA when the GPU includes only a “placeholder housing element” and improperly segments the Housing Element and accommodation of the RHNA from its Project Description and the analyses contained in the DEIR. The DEIR states that “Implementation of the 2040 General Plan policies and programs listed above, coordination of the RHNA with housing element updates, and compliance with applicable regulations would ensure that development under the 2040 General Plan is consistent with the RHNA.” This essentially argues that the GP is consistent with the RHNA because the County will change the GP in the very near future to accommodate the RHNA. This is nonsensical. For all the reasons provided in our comments on the Project Description, the RHNA, which is imminent and the County’s own estimate will be released while the DEIR is out for public review in the month of February, accommodating the RHNA may likely require changing the designations identified in the GPU and the analysis of the same provided in this DEIR. This is exactly why CEQA prohibits improper segmentation of related projects.

4.14 Population and Housing

4.14-1 Regulatory Setting, Environmental Setting

DEIR excludes all relevant discussion regarding both regulatory setting and environmental setting, and instead forces a reader to find the information buried in the BR.

No discussion is provided regarding SB 330 (Housing Crisis Act of 2019).

4.14-6 through 8, Impact 4.14-1

See piecemealing comments above. This impact addresses the County's ability to accommodate its imminent RHNA allocation. The discussion explains how "it is anticipated that the County will have to identify additional land that would meet state standards for lower-income inventory site requirements" and that "identifying sufficient sites for this next [RHNA] cycle will be a challenge."

But the draft RHNA numbers are already available, and per the DEIR's text, will be finalized while the DEIR is out for public review. The RHNA sites should be identified and considered as part of this DEIR. Knowing that land will be imminently re-designated in the near future, as part of the Housing Element Update, makes the analysis in the DEIR meaningless.

6.0 Alternatives

6.6 Environmentally Superior Alternative

The Dense Cores Alternative is selected as the environmentally superior alternative. The analysis fails to consider whether this alternative is feasible given the land available for development in the Existing Community and Urban land use categories. It also fails to address the impacts on surrounding cities. Significant concentration of population and housing adjacent to existing cities has the potential to create significant effects in those cities. This is not considered.

As noted in this letter's introduction, given the breadth of impacts not studied, nor impacts with suggested mitigation measures, VCEDA respectfully requests a re-circulation and distribution of the DEIR in the hopes that additional analysis will address these deficiencies.

You may contact me directly if you have questions specific to the comments listed above, or if you require a more detailed analysis.

Sincerely,



Sandy E. Smith
VCEDA Policy Chair

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Thursday, February 20, 2020 7:41 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Christina Pasetta

Contact Information:

Christina.pasetta@patagonia.com

Comment On:

Oil and Gas buffer zone minimums

Your Comment:

2500 feet is still too close to people and shared spaces for these polluting and destroying entities but that is the minimum we can demand as a buffer zone for these oil and gas extractive and explorative practices.

No more oil.

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Thursday, February 20, 2020 10:36 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Leah Kolt

Contact Information:

Dendub22@gmail.com

Comment On:

draft plan

Your Comment:

The proposed 1500 ft minimum between oil & gas facilities, homes and schools is way too close for comfort and safety .
At least a mile is needed to outdistance the emissions.

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Friday, February 21, 2020 12:53 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Nina Danza

Contact Information:

prettycheapjewelry@gmail.com

Comment On:

EIR and draft plan

Your Comment:

Provide a computation of all GHG emissions in ONE EASY TO FIND LOCATION OF THE PLAN. Include everything! err on the side of overestimating and not omitting sources. CHANGE GOALS and MITIGATION MEASURE SO THE State reaches carbon neutrality by 2045. THE USA IS NOT A LEADER for climate change. CALIFORNIA has that role for our country and VENTURA COUNTY has the money and citizen support to fill that role. DO NOT weaken our state with a poor climate change element in the general plan.

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 10:39 AM
To: Simmons, Carrie
Subject: FW: Climate change has impacts!

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Pamela Holley-Wilcox <info@email.actionnetwork.org>
Sent: Friday, February 21, 2020 5:30 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has impacts!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. We can also expect more extreme weather, producing both droughts (with associated wildfire risk) and floods.

My family and community are counting on you to ensure that the draft EIR addresses the full scope of environmental impacts and mitigations.

This means that all greenhouse gas emissions must be counted based on the most current science.

I favor using a wide variety of methods to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a comprehensive and systematic plan. This is important to me because I care about the world my grandchildren will inhabit. That world will be shaped by the planning you do now.

Thank you.

Pamela Holley-Wilcox

pamelahw@icloud.com

4013 Galapagos Way

Oxnard, California 93035

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 10:39 AM
To: Simmons, Carrie
Subject: FW: Climate change has environmental impacts!

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Fiona Bremner <info@email.actionnetwork.org>
Sent: Friday, February 21, 2020 4:58 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a systematic plan.

In addition, I feel the plan should restore the decisions of the Board of Supervisors to require that all new wells collect gases rather than flare or vent and also that gas-fueled lawn and garden equipment should be banned.

Thank you—

Fiona Bremner

Fiona Bremner

fbremner@rocketmail.com

418 S. Dos Caminos

Ventura, California 93003

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 10:40 AM
To: Simmons, Carrie
Subject: FW: Climate change has environmental impacts!

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Mark Mendelsohn <info@email.actionnetwork.org>
Sent: Friday, February 21, 2020 3:23 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Mark Mendelsohn

mmendels33@gmail.com

8076 Crystal PI

Ventura, California 93004

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 10:41 AM
To: Simmons, Carrie
Subject: FW: general plan

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: richard@range-realty.com <richard@range-realty.com>
Sent: Friday, February 21, 2020 8:10 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: general plan

Greetings,

The County General Plan proposed does not address the conflict with CEQA, EIR, Fire Department, insurance companies, and Costal Plan regarding brush clearance for fire protection. Specifically, a house on a ridge requires much more, buy hundreds of feet, clearance than a house on the flat.

Ask the homeowners on Mipoloma Road that lost their houses.

Richard Gray, Broker
Range Realty

415 E. High St.
Moorpark, CA 93021
805-529-6626

DRE 00933987

Simmons, Carrie

From: Josep Volpe <bluesurfvan@gmail.com>
Sent: Saturday, February 22, 2020 10:43 AM
To: General Plan Update
Subject: Comment on future policies

Please consider that we are facing a much worse future for all our health if we continue to put profits for the petroleum industry before people's' health. That is not to say there is not room for plenty of income and profits to be made. Just please do it sensibly with renewable energy. Stop all fracking immediately. Push for electric vehicles. Improve public transportation. Encourage bicycle use, etc. You know how to do it. It will just take the political will to stand up to the petroleum industry that is harming everyone in Ventura County, let alone the entire planet.

Thank you for listening to reason.
Sincerely,
Mary Volpe

Simmons, Carrie

From: Harmony Eckberg <harmonyeckberg@yahoo.com>
Sent: Saturday, February 22, 2020 11:58 AM
To: General Plan Update
Subject: Comments on new Draft Environmental Impact Report

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Ventura County must protect our quality of life with bold action on climate in its General Plan Update. This document sets the policies that drive all land-use decisions for the next 20 years, but the current draft is completely inadequate in addressing the climate crisis.

A recent [report](#) in the Washington Post confirmed that we are the fastest-warming county in the continental U.S.

We have seen the catastrophic effect of a warming world in the fierce winds that whipped the Thomas and Woolsey fires out of control and we will not forget the suffering it caused our families and neighbors.

Climate change is caused by fossil fuel production and consumption. We must do our part to reduce oil production through thoughtful, rigorous policy to phase it out.

Your written comments will let the Board of Supervisors know your concerns...if you don't write, they won't know.

Buffer Requirements – The proposed buffers for locating oil and gas facilities a safe distance from schools and homes are inadequate. Studies show adverse health impacts from oil and gas facilities at distances of at least half a mile.

Action Needed: Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet.

Trucking vs. Pipeline – Currently, oil and produced water from local oil wells are mostly transported by truck. Trucking creates safety hazards on county roads, exposes residents to toxic diesel pollution, and causes substantial amounts of greenhouse gas emissions. Draft General Plan Policy COS-7.7 attempts to address this problem by requiring newly permitted oil wells to use pipelines instead of trucks to transport oil and produced water.

However, the DEIR attempts to undermine Policy COS-7.7, concluding that the added costs of constructing pipeline connections make this policy infeasible and may lead to a loss of petroleum resources. The DEIR proposes to allow trucking if pipelines are deemed infeasible. This would create a loophole allowing oil companies to simply claim that the cost of a pipeline connection is too high.

Action Needed: Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.

Flaring – Draft General Plan Policy COS-7.8 requires gases from all new discretionary oil and gas wells to be collected and used, or removed for sale or proper disposal, instead of being flared or vented to the atmosphere. The policy would allow flaring only in cases of emergency or for testing purposes. This is important because venting and flaring release both toxic gases and powerful climate pollutants like methane to the atmosphere.

The DEIR tries to undermine this policy, too. It concludes that the added costs of treating the gas on site or constructing pipeline connections would make this requirement infeasible and may lead to a loss of petroleum resources. The DEIR instead would allow flaring if conveyance by pipeline is deemed infeasible, creating another loophole that could allow oil producers to simply claim that the cost is too high and continue with business as usual.

Action Needed: Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

Climate Action Plan – The draft General Plan and the DEIR conclude that the county’s greenhouse gas emissions would have significant impacts. However, the Climate Action Plan proposed as part of the General Plan is inadequate and will not reduce emissions in a meaningful way. Most proposed Climate Action Plan policies are vague and aspirational, relying on noncommittal assurances that the county will “encourage” and “support” change rather than clearly require measurable reductions in climate pollution.

Climate Action Plan policies must result in measurable, enforceable reductions sufficient to meet California’s climate goals. This is important because the General Plan and related Climate Action Plan can be used to streamline approval of future development projects. The county may not carefully analyze the climate consequences of future projects — including discretionary oil and gas development — if those projects claim they’re consistent with the Climate Action Plan. If the Climate Action Plan consists mostly of vague, voluntary, or otherwise unenforceable policies, future projects could easily be found consistent and could evade proper environmental review.

Action Needed: Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

Greenhouse Gas “Super-Emitters” – A recent NASA study documents that several Ventura County facilities, including oil and gas operations, are “super-emitters” of powerful climate pollutants. Stationary source emissions, including those from oil and gas operations, make up approximately 26 percent of all emissions in California. The General Plan must include strong policies to detect and curb emissions from these “super-emitters.”

Action Needed: The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

Sincerely,

Harmony Eckberg

Simmons, Carrie

From: Michael Shapiro <michael@michaeljshapiro.com>
Sent: Saturday, February 22, 2020 12:32 PM
To: General Plan Update
Subject: My Comments Re: County's Draft Climate Action portion of the proposed County General Plan

To Whom It May Concern -

I must strongly express my objections to the latest draft of Ventura County's Draft Climate Action Plan part of the proposed new General Plan. Frankly - this draft is shockingly flawed given the ample input that has already been presented by countless non-profit organizations and citizens who have been participating in the meetings sponsored by the County in order to build and organize a broad consensus of agreement.

One of the most striking parts was a chart that illustrated where the County foresaw future oil & gas extraction projects but — tragically — omitted any similar chart/schematic for where foresaw significant set-aside spaces for where an ambitious (for example) Green Industrial Park might be developed to manufacture alternative, clean-green energy-producing jobs, i.e., wind-turbines and/or solar-panel manufacturing. That omission is preposterous given the level of alarm bells already sounding that warn us about climate change in general, and how Ventura County specifically has been “heating-up” faster than all the other California counties.

No where in the current draft has the “consumption side” of oil and gas and the necessity that significant reduction of same must be taken into account. It simply can't be “business as usual” when it comes to the future consumption and use of dangerous fossil fuels. And if significant consumption reduction is favored, then that goal should be reflected in the amount of future oil and gas production - which must also have significant reductions and certainly not maintain current levels or even worse — expand output. This is dangerous and unacceptable to any citizen who cares about combatting climate change.

Finally — no where did I read that the so-called FIVE POUND LIMIT for the Ojai Valley was being preserved. The health and welfare of the Ojai Valley depends on this limit to be maintained and enforced throughout the duration of any new 20-Year General Plan. To do otherwise could be considered criminal and would signal an obvious intentional effort to ignore the health and welfare of the County citizens that choose to reside in the greater Ojai Valley.

These above are but several of the deficiencies discovered in the latest County Draft of the new Twenty-Year General Plan. Your draft seems to me to be entirely incomplete and inadequate and it's painfully obvious that it greatly favors the oil and gas extraction industry when it comes to combatting adverse local and global climate changes now taking place at an alarmingly accelerating rate. We must do much-much better! Back to the drawing boards!

Sincerely -

Michael J. Shapiro

805-889-7105

Michael Shapiro
michael@michaeljshapiro.com

Simmons, Carrie

From: Richard Gould <rickgould11@me.com>
Sent: Saturday, February 22, 2020 2:13 PM
To: General Plan Update
Subject: Carbon emissions

Take the bull by the horns;
Set the carbon emissions levels at lower levels than ever before. Invite other Cities to be bold with us.
It will cost jobs in the short run but slow the devastating Heating of. Land and ocean Sent from my iPhoneL

Simmons, Carrie

From: Tom Erickson <tomatbob@yahoo.com>
Sent: Saturday, February 22, 2020 4:29 PM
To: General Plan Update
Subject: Decisively addressing the climate crisis

Greetings. As a long-time Ventura County resident, I wanted to be sure to let you know how worried I am about the climate crisis. The news is so bleak, and decisions made for our general plan are going to be crucial for our lives. Please do everytihng you can to phase out oil and gas production and consumption as soon as possible, and accelerate the cleanup of toxic sites. The time for dithering on this is way past!

Thank you, Tom Erickson

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 10:38 AM
To: Simmons, Carrie
Subject: FW: Climate change has environmental impacts!

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Noah Aist <info@email.actionnetwork.org>
Sent: Saturday, February 22, 2020 11:50 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Noah Aist

aistnoah8@gmail.com

8892 Tacoma Street

Ventura, California 93004

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 10:38 AM
To: Simmons, Carrie
Subject: FW: Climate change has environmental impacts!

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Ally Gialketsis <info@email.actionnetwork.org>
Sent: Saturday, February 22, 2020 7:04 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Ally Gialketsis

agialketsis@gmail.com

380 Teloma Drive

Ventura, California 93003

Simmons, Carrie

From: Shelley DuPratt <shdupratt@gmail.com>
Sent: Sunday, February 23, 2020 7:51 AM
To: General Plan Update
Subject: General Plan 2040

To Whom It May Concern,

Climate change is here, its effects are already evident in our county. The General Plan update fails to provide enough emissions reduction to meet the state-mandated goals. A robust plan, with the help of technical and scientific input, needs to be included for the 2040 General Plan, including a strong defense of the five pound air emissions limit for the Ojai Valley.

Sincerely,
Michele DuPratt
Ojai, CA

Simmons, Carrie

From: Emily Hirsch <emilyrenehirsch@gmail.com>
Sent: Sunday, February 23, 2020 8:00 AM
To: General Plan Update
Subject: General Plan 2040

To Whom It May Concern,

The effects of climate change are overwhelmingly evident in our county. The General Plan update does not provide high enough emissions reduction to meet the state-mandated goals. A stronger plan, with the help of technical and scientific input, needs to be included for the 2040 General Plan, including a strong defense of the five pound air emissions limit for the Ojai Valley.

Thank you,
Emily
Ojai, CA

Simmons, Carrie

From: P. Lyn Middleton <plyn.pspace@gmail.com>
Sent: Sunday, February 23, 2020 3:36 PM
To: General Plan Update
Subject: P.LynMiddleton/Climate

As a ventura county resident, here below are what I copied and what I see that needs done. Cfrog says it all. I agree! See Below. We need to do everything to help our world.

Thank you, P. Lyn Middleton/ 204 N. Blanche Street / Ojai CA 93023

Buffer Requirements – The proposed buffers for locating oil and gas facilities a safe distance from schools and homes are inadequate. Studies show adverse health impacts from oil and gas facilities at distances of at least half a mile.

Action Needed: Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet.

Trucking vs. Pipeline – Currently, oil and produced water from local oil wells are mostly transported by truck. Trucking creates safety hazards on county roads, exposes residents to toxic diesel pollution, and causes substantial amounts of greenhouse gas emissions. Draft General Plan Policy COS-7.7 attempts to address this problem by requiring newly permitted oil wells to use pipelines instead of trucks to transport oil and produced water.

However, the DEIR attempts to undermine Policy COS-7.7, concluding that the added costs of constructing pipeline connections make this policy infeasible and may lead to a loss of petroleum resources. The DEIR proposes to allow trucking if pipelines are deemed infeasible. This would create a loophole allowing oil companies to simply claim that the cost of a pipeline connection is too high.

Action Needed: Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.

Flaring – Draft General Plan Policy COS-7.8 requires gases from all new discretionary oil and gas wells to be collected and used, or removed for sale or proper disposal, instead of being flared or vented to the atmosphere. The policy would allow flaring only in cases of emergency or for testing purposes. This is important because venting and flaring release both toxic gases and powerful climate pollutants like methane to the atmosphere.

The DEIR tries to undermine this policy, too. It concludes that the added costs of treating the gas on site or constructing pipeline connections would make this requirement infeasible and may lead to a loss of petroleum resources. The DEIR instead would allow flaring if conveyance by pipeline is deemed infeasible, creating another loophole that could allow oil producers to simply claim that the cost is too high and continue with business as usual.

Action Needed: Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

Climate Action Plan – The draft General Plan and the DEIR conclude that the county’s greenhouse gas emissions would have significant impacts. However, the Climate Action Plan proposed as part of the General Plan is inadequate and will not reduce emissions in a meaningful way. Most proposed Climate Action Plan policies are vague and aspirational,

relying on noncommittal assurances that the county will “encourage” and “support” change rather than clearly require measurable reductions in climate pollution.

Climate Action Plan policies must result in measurable, enforceable reductions sufficient to meet California’s climate goals. This is important because the General Plan and related Climate Action Plan can be used to streamline approval of future development projects. The county may not carefully analyze the climate consequences of future projects — including discretionary oil and gas development — if those projects claim they’re consistent with the Climate Action Plan. If the Climate Action Plan consists mostly of vague, voluntary, or otherwise unenforceable policies, future projects could easily be found consistent and could evade proper environmental review.

Action Needed: Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

Greenhouse Gas “Super-Emitters” – A recent NASA study documents that several Ventura County facilities, including oil and gas operations, are “super-emitters” of powerful climate pollutants. Stationary source emissions, including those from oil and gas operations, make up approximately 26 percent of all emissions in California. The General Plan must include strong policies to detect and curb emissions from these “super-emitters.”

Action Needed: The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

For Ojai residents:

The 2040 General Plan must include a strong defense of the five-pound air emissions limit for the Ojai Valley. All projects subject to CEQA review must include an evaluation of the totality of air emissions in order to understand and mitigate the impacts to local air quality.

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Sunday, February 23, 2020 4:53 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Thomas McCormick

Contact Information:

tom3ojai@gmail.com

Comment On:

Appendix B. Climate Change

Your Comment:

NASA, working with the California Air Resources Board using InfraRed sensing while flying over California have determined that a third of California methane emissions can be traced to super emitters in the oil industry. In Ventura County, NASA has identified five methane super emitters at oil facilities. The General Plan must include regulation to eliminate methane emissions.

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 10:36 AM
To: Simmons, Carrie
Subject: FW: Climate change has environmental impacts!

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Martina Gallegos <info@email.actionnetwork.org>
Sent: Sunday, February 23, 2020 10:10 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Martina Gallegos

Martina Gallegos

Coyo123@icloud.com

532 Paseo Nogales

Oxnard , California 93030

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 10:37 AM
To: Simmons, Carrie
Subject: FW: We're in a Climate Emergency!

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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P. (805) 654-2497 | F. (805) 654-2509
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Clint Fultz <info@email.actionnetwork.org>
Sent: Sunday, February 23, 2020 8:18 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: We're in a Climate Emergency!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I am deeply about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management and supporting HR763 The Energy Innovation and Carbon Dividend Act.

We want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Clint Fultz

Clint Fultz

djbelieve@protonmail.com

787 St Charles Dr Apt 8

Thousand Oaks , California 91360

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 10:37 AM
To: Simmons, Carrie
Subject: FW: Comment re: Draft VC2040 General Plan

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Barbara Leighton <beleighton@yahoo.com>
Sent: Sunday, February 23, 2020 8:08 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comment re: Draft VC2040 General Plan

To: Ventura County Board of Supervisors

From: Barbara Leighton
4102 Greenwood St.
Newbury Park, CA 91320

As a resident of Ventura County, I am very concerned about the future of our region and life on earth due to worsening climate change impacts.

Ventura County's General Plan is an opportunity to address these serious threats to human health and safety. If business as usual continues, impacts are bound to quicken the pace of becoming more and more severe. This is the time to make beneficial changes before conditions worsen – both locally and globally.

I agree with recommendations made by CFROG and the 350 Ventura County Climate Hub!

We need to muster our strength to shape a better future for generations to come. If we work together, I believe we can overcome the obstacles that block a thriving life-filled future.

Thank you for taking time to consider this matter carefully.

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 10:37 AM
To: Simmons, Carrie
Subject: FW: VC2040 General Plan Comments

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Gordon Clint <ghclint@yahoo.com>
Sent: Sunday, February 23, 2020 3:50 PM
To: ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>
Cc: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: VC2040 General Plan Comments

To: Board of Supervisors
cc: Susan Curtis
From: Gordon Clint
4102 Greenwood Street
Newbury Park, CA 91320

I am signing on to this letter because I care about the deteriorating condition of my County and planet. We must approve a plan that will provide a just and sustainable future. Please strengthen the climate aspects of the 2040 General Plan consistent with the following concerns:

With worsening climate change impacts, we reiterate and amplify the concerns the people expressed in January of last year about "climate change and GHGs, and the effects of continued oil and gas extraction including secondary effects related to climate change, air quality, water quality, water supply, traffic, noise, odors, aesthetics, and hazards."

Our county is warming faster than any other in the nation, our ocean is becoming more hostile to marine life, our last drought was the most intense and lasted longest, and our

history of costly floods will be dwarfed when future atmospheric rivers pour over our valleys. Our house is on fire. We need a thorough plan and environmental impacts analysis based on the latest science.

Ventura County's plan matters. Our larger cities are making climate action plans and look for your example of leadership. The environmental impact from what we do to mitigate climate impacts at the global scale is profoundly influential in trying to stop runaway climate change. This is explained in a new report Insights from the California Energy Policy Simulator about the role of the State of California in the world. Ventura County as a local government hit hardest by climate impacts must step up and meet serious goals. "Insights about California's climate policies are at the forefront of global efforts to battle climate change. The state's leadership and success so far have helped maintain momentum despite political headwinds. If California faltered, global efforts to reduce GHG emissions would be dealt a major setback. Meanwhile, the severe risks from runaway global warming are becoming more tangible as the state suffers from wildfires supercharged by climate change."

A. Four Overall Comments:

We are grateful for the expertise at the law firm of Shute, Mihaly and Wineberger retained by CFROG regarding CEQA. We have appreciated their past comments. We join them in continuing to request the following:

1. Count ALL GHGs that result from activity in our county: Count all burning of oil and gas originating in our county and count all fugitive methane from wells in our county and from methane entering our county that was not counted at the jurisdiction of origin. Do the math on the GHG footprint for heavy exports. We want to mitigate our fair share of all climate impacts from activities within Ventura County. We have to know what they are. Worrying about double counting is not acceptable. Just worry that you haven't counted every cause of climate impacts that we are morally and legally responsible to mitigate with a comprehensive inventory and a systematic plan.

2. Use the latest science to calculate GWP of methane: The global warming potential of GWP is nearly 40 percent greater than what you are using. The International Panel on Climate Change states that over a 20 year period, methane has a GWP of 84 compared to carbon dioxide (up from their previous estimate of 72). The US EPA estimates it at 87 and recent scientific experts put the estimate at 96. We must know the true environmental impact of methane emissions. A complete and scientifically valid GHG inventory is required for a CEQA-compliant Climate Action Plan.

3. Use the emissions reduction goal from Governor Brown's Executive Order B-18-55 "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing greenhouse gas emissions." It is an inadequate compromise, but not as much as the SB 32 goal of 80% below 1990 levels by 2050. City of LA plans to stay within a net zero carbon budget between now and 2045. The

proposed GHG reductions in the VC2040 Draft of 41 percent below 2015 levels by 2030, 61 percent by 2040, and 80 percent by 2050 are not ambitious enough for us to do our part to mitigate the climate chaos happening faster than scientists have predicted.

4. Policies and programs must meet the goal: It does not take an in-depth analysis to see that this plan will not achieve the 2030 goal of 40% reduction in GHGs below 1990 levels. A new report Insights from the California Energy Policy Simulator shows that the State of California will fall short of that goal by at least 15 and as much as 45 MMT CO₂e. We have and continue to advocate for a goal aligned with Governor Brown's Executive Order to achieve carbon neutrality as soon as possible and no later than 2045.

B. Some Comments about Impacts and Mitigation

The environmental impacts that concern us are those resulting from governments not making and carrying out plans to mitigate climate change. Your draft analysis does not include most of them. Table B in the Executive Summary is not even half finished. Some of the more serious impacts are missing from the draft analysis. Here are a few of our concerns:

1. Aesthetics, Scenic Resources and Light Pollution and Agriculture and Forest Resources: Mitigation programs are needed to protect our resources from degradation from significant climate impacts. The loss of soil in particular is associated with the downfall of civilizations.

2. Air Quality: The emissions impacts from exceeding criteria pollutant thresholds and also greenhouse gases seem significant and can be mitigated.

3. Biological Resources: The new implementation program is a good start to "update the Initial Study Assessment Guidelines, Biological Resources Assessment report criteria and evaluate discretionary development that could potentially impact sensitive biological resources". Two kinds of impacts are missing. 1) Climate Change. A major mitigation is the restoration of wetlands which should be at a 2:1 or greater ratio. Stormwater management is another mitigation that reverses the loss of vegetation from drought and floods and supports the restoration of all of the indigenous biology that makes an ecosystem function to maintain the small water cycles. 2) Toxic Pesticide and Herbicide Use and Drift. This must be part of the agenda of a Program for Protection of Sensitive Biological Resources to promulgate the mitigations provided by Integrated Pest Management. Pest management policy must align with the recommendations of the California Department of Pesticide Regulation Roadmap for Integrated Pest Management some of which have climate mitigation co-benefits.

4. Energy: We want a workshop to learn how it is deemed less than significant to allow wasteful, inefficient, or unnecessary consumption of energy resources.

5. Greenhouse Gas Emissions: The climate change impacts are so dire that the mitigations need to be benchmarked to be achieved before it is too late to reverse runaway climate chaos. At minimum we demand a systematic plan for decarbonization of county facilities and electrification of the transportation system.

6. Hazards, Hazardous Materials, and Wildfire: The impacts of toxic explosions, leaks, and spills and the drift of regulated materials and the ignorance of the public about toxic impacts must be addressed where feasible through mitigations that regulate the use and transport of hazardous materials. We have recommended feasible mitigations for people being exposed to the risk of wildfires that have not been accepted by decision-makers.

7. Hydrology and Water Quality: Impacts from climate change and poor land management have led to grave threats to water supply and water quality. These are highly significant--ground water overdraft, overuse and degradation of water quality, erosion, flooding, and siltation. (Impact 4.10-12) The failure to restore small water cycles to keep stormwater in the uplands and maintain forest health is one of the most serious impacts being mitigated in many places through a paradigm shift about stormwater management. Mitigation is essential--water is life. It requires an integrated water management plan that involves every sector working on every mitigation of which we are aware.

8. Land Use and Planning We want an analysis of incompatible land uses and new development with negative health implications. Closing wells near sensitive sites is a mitigation. Environmental Justice is not examined in the draft EIR.

9. Mineral and Petroleum Resources: We want an analysis of the impact of the scenario in which wells have been put on hold and the operator cannot close the wells for lack of funds. We have no choice. The wells must be closed properly. Fields must be restored to functioning ecosystems to help mitigate climate change impacts. We need insurance as well as bigger bonds.

10. Traffic and Transportation: Tailpipe emissions is an extremely significant environmental impact. The mitigation aimed for in the CTM-C: Vehicle Miles Traveled (VMT) Reduction Program needs assurances of effectiveness via a clear description of what "conditions warrant providing additional mitigations and programs"? This is far too vague to be a mitigation for this significant impact. We have no alternative but to reliably cut GHGs in the transportation sector.

11. Utilities: Failure to develop wholesale and commercial scale renewable energy generation and microgrids is a significant environmental impact because it has forced us to have to get our electricity from fossil fuels via transmission lines that spark wildfires. Community microgrids are a feasible mitigation.

12. Waste Management: Failure to properly manage waste has a highly significant environmental impact, especially when it produces methane super-emitter landfills that

is driving climate change, but also the failure to reuse and recycle consumer goods and the materials and equipment discarded by commercial enterprises. We need a more comprehensive approach for mitigation of these impacts.

C. The following policy recommendations for the Draft Plan could help the Plan achieve the GHG reduction goals to mitigate climate change impacts and help the EIR be more relevant to the climate crisis.

Land Use and Community Character: We endorse the comments submitted by Bruce Smith to more firmly assure preservation of agricultural land and open space. We point out the lack of analysis of Environmental Justice policy issues.

Circulation, Transportation, and Mobility:

1. No overriding considerations should allow a project to NOT reduce VMT unless all of the vehicles have zero emissions that will use the proposed project.
2. CTM 3-9 to widen SR 118 has a significant environmental impact.
3. Benchmarks to reduce VMT need to be more clear and the plan needs a review with public input every two years until 2028 and then no longer than every five years.
4. Parking programs should be included in ways that reduce single-occupancy car trips.

Public Facilities, Services, and Infrastructure:

1. Enroll residents in a program to reduce CO2 emissions in their neighborhoods. Ex: Cool Block or Transition Streets.
2. PFS 2.1 must be revised to say include rather than encourage 'Sustainable Plans and Operations' in order to be considered a mitigation of climate change impacts from greenhouse gas emissions.
3. Policy PFS 7.1 should be revised to delete the need for access to gas. The environmental impact from use of natural gas requires carbonizing buildings beginning with no gas connections to new residences . It is therefore contradictory to ensure access to gas.
4. Local renewable energy generation must be part of the mitigation plan for reducing transmission facility fire hazard risk. This is not the same as "Smart Grid Technology". You need experts who know the cutting edge of this field to help write coherent policy on this topic.
5. Zero Waste The County shall achieve zero waste (via a suite of policies to reduce, reuse, and recycle) with no organic waste going to landfills by 2023
6. Zero Waste Policy for Meetings and Events Design and implement a zero waste policy for meetings and events sponsored or permitted by the County to minimize waste and rescue surplus edible food
7. Compostable Take-Out Foodware Require that take-out foodware be made with material compostable in solid waste processing facilities within 60 days
8. Reduce Solid Waste by Phasing Out Single-Use Plastic Evaluate how to best reduce solid waste generation per capita by at least 15% by 2030 including phasing out single-use plastics including but not limited to plastic straws, plastic utensils, plastic take-out containers, and expanded polystyrene
9. Ban Expanded Polystyrene

Conservation and Open Space:

1. Reduce oil and gas production by 40% by 2025 via higher monitoring standards and 2500 ft buffer zones near sensitive sites; reduce production to zero by no later than 2040.
2. Phase-Out of Oil and Gas Production The County shall prohibit new drilling and shall regulate existing wells to assure steady closing of wells beginning near residential and commercial areas.
3. Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.
4. Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.
5. Detect and curb methane emissions from "super-emitter" sites as identified by NASA.
6. Tax oil and gas production, and related uncaptured methane to raise the needed revenues to fund urgent climate programs to replace high-emission vehicles with a priority on trucking and freight companies, fishing businesses, general contractors and K-12 schools.
7. Require a fully accountable performance bond for all new wells to cover cost of closure Cite LAT article (maybe put on website and link to it).
8. Establish an insurance fund that oil and gas producers contribute to that will cover accidents and closing wells if the producer goes bankrupt.
9. Ban gas-fueled lawn and garden equipment. (Ex: City of Ojai)
10. Accelerate capture of legacy HFCs Enlist the public and private to find and destroy existing stocks of HFC's (refrigerant gases with extremely high Global Warming Potential).
11. Develop and adopt building codes based on best practices for use of low embodied carbon concrete and set targets for use of low GHG concrete alternatives. Ex: Bay Area Air Quality Management District and King Co, WA.
12. Encourage climate-safe and climate-resilient development through zoning reform and removal of limits on height, density, and minimum parking requirements to enable and promote walkability and a mix of uses for homes and businesses, parks and transit.
13. Create a master local clean energy siting and funding plan for wholesale distributed solar energy plus storage in commercial scale projects producing energy needs by 2030.
14. Provide energy efficiency benchmarking and rebates for low-income housing and renters as well as low-interest loans for small businesses to reduce energy use; assist owners of existing buildings to switch from natural gas to electricity.
15. Prepare sustainable building, siting, landscaping and passive heating and cooling practice guidelines, with a priority on low-income housing, that reduce consumption of non-renewable resources and that include climate and fire-safety in pre-approved plans.
16. Energy Efficiency to Reduce Electricity Use Use Energy Efficiency to Deliver 15% of Projected Needs for electricity in the county by 2023; and 30% by 2030.
17. Efficiency Building Standards for Retrofits Prioritize energy and water efficiency building standards and work to retrofit existing buildings.
18. Decarbonize County Buildings Develop a county building electrification plan eliminating natural gas use in County-owned facilities.
19. Decarbonize All Building Types Develop an electrification plan with goals for GHG

emission reductions through renewable energy that evaluates and prioritizes programs for local solar, energy storage and demand response (DR) that disconnects all buildings from gas service by 2050. Include incentives for deep retrofits of inefficient buildings.

Agriculture:

1. Integrated Pest Management where toxic pesticides are a last resort. Create a program that promotes the principles (systems approach, building trust, and effective communication) and pursues the recommendations of the Roadmap for Integrated Pest Management from the University of California and CA Department of Pesticide Regulation. Environmental impacts from toxic pesticides are not described in the Background Report. The Roadmap to an Organic California Policy Report by CCOF Foundation offers information for mitigations and climate action. A workshop is needed.
2. Inorganic Nitrogen Based Fertilizers Set benchmarks for reducing use of inorganic N fertilizer and encourage optimized use of organic and inorganic fertilizer for greatest efficiency in closed nutrient cycles, monitor for nutrient runoff from fields and encourage the use of cover crops and green manure crops to reduce or avoid nitrous oxide (N₂O) emissions and nutrient runoff.
3. Diversified Cropping Systems Encourage farmers to include 1 – 5% of beneficial insect attracting plants in a planted crop, and other methods, such as crop rotation, perennial mowed cover crop in orchards, and integrating multiple species or varieties to enhance the biological and economic stability by spreading economic risk and buffering against pest invasions and extreme weather events, and increase carbon sequestration.
4. Reward Regenerative Farmers with Digestate and Compost from Food Waste Research feasibility of a program for composting food waste for use by farmers and landscapers who use regenerative practices that sequester certified amounts of CO₂.

Water Resources:

1. At least 30,000 acre-feet per year must come from storm water capture by 2035
2. All rainfall must be retained onsite in soil and reservoirs.
3. Slow It. Spread It. Sink It! The County shall enforce Best Management Practices (BMP) and Low Impact Development (LID) for new developments.
4. Recycle all wastewater for beneficial reuse by 2035.
5. Reduce potable water use per capita by 22% by 2025 and 25% by 2035: Offer incentives for water conservation features, including drought tolerant landscaping, permeable materials in standard parkway design guidelines, street trees, infiltration, greywater, and water-saving plumbing.
6. Close oil and gas wells and injection wells near aquifers as a top priority.
7. Create a Master Plan to develop the full potential of integrated water management to infiltrate the ground and recharge aquifers; support reforestation and restoration of watershed ecosystems; conserve and protect groundwater resources, and clean up creeks, streams, and estuaries.
8. Support Santa Clara River Loop Trail and Ventura River Trail Development

Economic Vitality:

1. Agricultural Diversification should include reference to regenerative practices to create biodiversity with opportunities for community members to visit farms.
2. Small Business Promotion. Support approval of caretaker residential space on

- business property to reduce VMT and more financial strength for small businesses.
3. Green Economy. Prioritize youth and immigrants for workforce development in industries that promote and enhance environmental sustainability, including GHG reductions, climate adaptation, resiliency and local renewable energy generation, storage and distribution, including solar power, wind power, wave energy, regenerative organic farming and value-added agriculture-related activities, and other appropriate renewable sources.
 4. Maritime Economy. Facilitate a sustainable maritime economy using restorative aquaculture techniques that restore ocean health and biodiversity while reviving pre-human fisheries abundance. For example, restore sand-bottom kelp forests and increase kelp forests with flexible floating fishing reefs where the seafloor is otherwise too deep for kelp.
 5. Promote Fire-Resistant Infill and Revitalization. Encourage infill development that serves as firebreak rather than as additional fuel for wildfires.
 6. Create a Collaborative Structure for Innovation for a Resilient Future. The structure should be able to make decisions and create a way forward for zoning, building and materials and environmental health to allow options for a resilient future, include government officials, innovators and public as described in submissions from Sustainable Living Research Initiative.
 7. Parking Infrastructure. Develop parking policies to reduce single occupancy trips associated with employees and business activity to reduce Vehicle Miles Traveled.
 8. Master Plan for Distributed Energy Resources and Community Microgrids. Prepare a map of siting options for renewable energy generation and storage facilities and coordinate the identification of financing options for renewable energy resource development, including solar, wind, wave, storage and community microgrids both in front of and behind the meter.

In summary, with the accelerating tipping points, we cannot go half-way in our vision. We need extraordinary courage to set goals we can hang our hopes and efforts on. We want completeness and clarity so we can see how the emissions reduction plan adds up. We want respect for climate science to tell us the truth. We want more ambition. A 2016 decision of the state legislature in SB32 is just not good enough as a goal. We want to see a systematic plan that will assure carbon neutrality no later than 2045.

Simmons, Carrie

From: garry star <gstar42@hotmail.com>
Sent: Monday, February 24, 2020 9:55 AM
To: General Plan Update
Subject: Climate Action Plan (CAP) is seriously incomplete

Buffers should be increased from the currently proposed 1,500 feet to 2,500 feet. Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.

Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 9:45 AM
To: Simmons, Carrie
Subject: FW: comment: Draft General Plan 2040

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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For online permits and property information, visit [VC Citizen Access](#)



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From: Offerman, Steve <Steve.Offerman@ventura.org>
Sent: Monday, February 24, 2020 9:43 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Downing, Clay <clay.downing@ventura.org>
Subject: comment: Draft General Plan 2040



PO Box 1164

Ventura, CA 93002-1164

February 23, 2020

Dear Members of the Ventura County Board of Supervisors:

I write to you today on behalf of the 300 plus members of the Channel Islands Bicycle Club. My goal is twofold:

First, we wish to thank you for your leadership in multi-modal transportation. We cyclists are keenly aware and highly appreciative of the 29 miles of Class II bike lanes recently added to county roads and of the commitment of an unprecedented \$6 million in general funds designated new bike lanes on these same roads. Together, they support a healthier, safer, more active populace and reduce the need for car trips. Thank you.

Second, we wish both to applaud the robust, active transportation elements of the Draft General Plan 2040 and to encourage their implementation. In particular, we support the plan's commitment to policies that allow those who wish to travel on foot or by bike to do so safely, specifically:

- Encouraging bicycling, walking, public transportation and other forms of alternative transportation to reduce vehicle miles traveled, traffic congestion and greenhouse gas emissions.
- Expanding Safe Routes to School.
- Efficient land use patterns to reduce the need for single use car trips.
- Countywide bicycle lanes and trail systems connecting our community.
- Bicycle facility design that prioritizes cyclists' safety and visibility.
- Safe pedestrian crossings.
- Multi-modal choices that make driving alone an option rather than a necessity.
- Separated or buffered pedestrian and bicycle paths along County Road Networks that are designated Overweight Vehicle Corridors and STAA designated Terminal Access Routes.

- Constructing abandoned railroad rights-of-way for active transportation -- particularly the Santa Paula Branch Line Railroad Class 1 Bike Trail.
- Prioritizing an inclusive, regionally connected and consistently signed bicycle network such as that put forth in VCTC's Bicycle Wayfinding Plan. Such a network would connect our towns and important destinations within each community.

We thank you for progress made to date and look forward to a Ventura County that encourages healthier, less polluting living.

Sincerely,

Leslie Ogden

President, Channel Islands Bicycle Club

Simmons, Carrie

From: Karen Lindberg <k.lindberg5@verizon.net>
Sent: Monday, February 24, 2020 11:42 AM
To: General Plan Update
Subject: General plan /Environmental impact plan- comments

Hi,

I am a citizen that is deeply concerned about the impact of climate change on our county. I have noticed we have many oil wells in our county. I think our action plan should be aggressive like the LA plan and the Paris agreement. We need to have a goal of eliminating fossil fuel production in the county, including drilling, production and refining.

Also I agree with the following policies:

1. Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.
2. Flaring should be allowed only in cases of emergency or for testing purposes.
3. Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

Thank you,

Karen Lindberg and John Tarascio, Newbury Park residents
1207 Knollwood Drive,
Newbury Park, CA 91320



February 24, 2020

Sent via email

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, California 93009-1740
susan.curtis@ventura.org
GeneralPlanUpdate@ventura.org

Re: Request for 90-Day Comment Deadline Extension on the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan

Dear Ms. Curtis:

The Center for Biological Diversity respectfully requests an extension of the comment period for the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan (State Clearinghouse No. 2019011026). The current 45 day comment period imposes a deadline of February 27, 2020, and is inadequate to allow full review of (1) the Draft EIR which covers complex issues in its 598 pages plus six appendices, including a 1034 page background report and (2) the Public Review Draft of the General Plan, which is 463 pages and includes four appendices.

It is simply not possible for the public to meaningfully review and comment on these documents in such a short timeframe. Due to the sheer volume and complexity of the materials, we believe an additional 90 days is required. Extending the deadline to May 27, 2020 would allow for a more comprehensive review and more useful comments. We therefore respectfully request that you consider extending the comment period an additional 90 days.

Thank you for your attention to this matter.

Sincerely,

J.P. Rose
Urban Wildlands Staff Attorney
Center for Biological Diversity
660 S. Figueroa Street, Suite 1000
Los Angeles, California 90017
jrose@biologicaldiversity.org

Comments on Draft 2040 County General Plan and DEIR

Bruce Smith, AICP
3457 San Pablo St.
Ventura, CA 93003
February 24, 2020

The following are my comments based on my cursory review of the Draft 2040 General Plan and DEIR:

DRAFT 2040 COUNTY GENERAL PLAN:

Land Use and Community Character Element:

LU-3.3 Range of Uses in the Existing Community Designation (pg. 2-12):

This policy states in part: ...*"The County shall allow the appropriate zoning, population densities, and building intensities based on the adopted Area Plan or, where no Area Plan exists, by the applicable Existing Community Map contained in Appendix A.*

Because of the degree of specificity on the Existing Community Maps, the County shall require a General Plan amendment for any zone change within an Existing Community."

(Emphasis added)

It appears that the zoning maps and population density and building intensity tables for Existing Communities of the current General plan have not been included in Appendix A of the Draft General Plan. As such, the requirement for a General Plan amendment for any zone change within an Existing Community would be without legal basis, since there would be nothing to amend in the Draft General Plan. Although it could be argued that a zone change that is inconsistent with Table 2-1 of the proposed General Plan would require a General Plan Amendment, such zone changes could be potentially inconsistent with the Guidelines for Orderly Development (retain land uses and development at pre-established levels) and could cause potential impacts that have not been discussed in the DEIR.

Having no building intensity standards for Existing Communities would be inconsistent with the requirements of existing California General Plan law since these areas would have no building intensity standards (i.e., maximum lot coverage). (See comments regarding Table 2-2).

Table 2-1 General Plan Land Use Designations and Zoning Compatibility Matrix

(pg. 2-19):

As I stated in my May 2019 comments on the Preliminary Draft, the RA (Rural Agriculture) zone is not compatible with the Agricultural designation and should be eliminated therefrom. The RA zone predates the adoption of the Agricultural designation of the current General Plan, is listed under the heading of “Rural Residential Zones” in the Non-Coastal Zoning Ordinance, and allows many land uses that are incompatible with the purpose of the Agricultural designation. For example, the RA zone allows:

- Assembly Uses
- Intermediate and Residential Care of 7 or More Persons
- Cemeteries and Accessory Crematories, Columbaria and Mausoleums
- Cultural Heritage Sites with Historic Repository
- Colleges and universities
- Schools, elementary and secondary (boarding and nonboarding)
- Correctional Institutions
- Libraries
- Mobilehome Parks
- Camps
- Campgrounds
- Golf Courses and/or Driving Ranges
- Recreational Vehicle Parks
- Retreats
- Recyclables Collection Centers

Failure to eliminate the RA Zone from the Agricultural designation will potentially cause significant adverse impacts regarding the loss of agricultural soils/crops, is growth inducing, and is inconsistent with the purpose and intent of the SOAR Ordinance. The Draft EIR does not currently discuss or analyzed these impacts.

If for some reason the County seeks to allow the RA zone under the ECU-Agricultural designation (not subject to SOAR), then the purpose and intent should be clearly stated and any potential impacts discussed in the EIR.

Table 2-2 Land Use Designations and General Development Standards (Pg. 2-21)

As I stated in my May 2019 comments on the Preliminary Draft, this table contains no maximum lot coverage standards for the urban Residential Designations and contains a footnote stating: “*Maximum lot coverage is per appropriate County Zoning classification.*” However, the Non-Coastal Zoning Ordinance states that the Maximum Percentage of Building Coverage standard for each zone is: “*As determined by the General Plan or Applicable Area Plan.*” With the exception of the Saticoy Area Plan, all

Area Plans and Existing Communities not covered by an Area Plan currently contain maximum lot coverage standards. Moreover, this table fails to make reference to LU-10.3 Maximum Lot Coverage Nonconforming Lots (pg. 2-39). Therefore, this table needs to be corrected to make reference to maximum lot coverage standards contained in the Area Plans, Existing Community tables of the current countywide General Plan, and LU-10.3.

In addition, it appears that the zoning maps and population density and building intensity tables of each of the Existing Communities outside of an Area Plan of the current countywide General Plan have been eliminated in the proposed General Plan. This creates an inconsistency with State General Plan law since the Existing Community areas outside of an Area Plan would have no building intensity standards (see preceding comment regarding policy LU-3.3) and makes the Draft General Plan internally inconsistent. Therefore, these zoning maps and population density and building intensity tables should be added to either Appendix A, or an expanded Chapter 11 to address both Area Plans and Existing Communities.

ECU-Rural (ECU-R) (pg. 2-28), first paragraph is confusing and subject to misinterpretation, and should be modified to read:

This designation applies within the boundaries of an Existing Community designated area and provides a physical transition between the outer edges of an Existing Community or Urban Area and nearly adjacent ~~a~~Agricultural and ~~e~~Open ~~s~~Space designated areas and uses. ~~The ECU-Rural designation generally applies to the outer edges of Existing Community and Urban Areas and~~ around sensitive natural resources within the boundaries of an Existing Community designated area. Typical building types include large-lot single family homes in a rural setting.

PARKS & RECREATION LAND USE DESIGNATION (pg. 2-44) – *“This designation provides for parks and recreation facilities and associated recreation uses. The Parks and Recreation (PR) designation is only allowed in areas designated as Existing Community, Area Plans, or Areas of Interest under Policy LU-1.2.”* (Emphasis added)

This land use designation is apparently being created as a place saver for; 1) a future General Plan Amendment to actually designate specific properties with this designation and 2) a future Zoning Ordinance amendment to create a “REC” zone which would governing uses and development/operational standards.

Since the designation 1) only has a general description of allowed land uses (*parks and recreation facilities and associated recreation uses*), 2) the only development standard is *5% maximum lot coverage*, and 3) the designation is *allowed in areas designated Community, Area Plans, or Areas of Interest*, it is unclear how this designation is intended to be used. If the purpose is to change the land use designation of existing or planned parks and recreational facilities from Open Space, Agricultural, Rural, Existing Community and/or Urban designations to Parks and Recreation(PR), then that should be clearly stated. Moreover, the text of the Draft General Plan and Background Report should clearly state the current problem that the PR designation is intended to solve. In addition, it is unclear how the PR designation and the REC zoning would be consistent with the SOAR Ordinance on lands that are currently designated Open Space, Agricultural or Rural.

If the unstated purpose of the PR designation is that it should only be applied to lands that are currently designated Existing Community or Urban, then the reference to Area Plans should be qualified by Unincorporated Urban Center of said Plans. In addition, since the reference to Areas of Interest would mean that most of the south half of the County would be eligible for re-designation from Agricultural, Open Space and Rural to PR, such re-designations would generally require a countywide vote under the provisions of the SOAR Ordinance. Unless this is clearly the Board's intent, the reference to Areas of Interest should be eliminated.

LU-12.1 Parks and Recreational Facilities (pg. 2-46).

"The County shall support the development of parks and recreation facilities within areas designated as Existing Community, Area Plans, or Areas of Interest."

My comments regarding PARKS & RECREATION LAND USE DESIGNATION above, also apply to this policy. In addition, this policy seems overly broad in that a proposed park and recreational facility may have significant adverse, un-mitigatable impacts such as the loss of agricultural soils or the loss of natural resources. This policy, as worded, may prevent the County from denying such a project. The DEIR does not discuss these potential impacts.

Chapter 11 – Area Plans:

The last paragraph on page 11-1 states: *"Table 11-1 shows the compatibility between land use designations in the countywide General Plan and Area Plans. The solid squares indicate a directly compatible relationship between the two designations, and the empty square indicates limited compatibility because of a restriction from the development standards."*

State law requires that a General Plan (including Area Plans) be internally consistent. Table 11-1 is replete with errors and needs to be comprehensively reviewed and corrected, especially in light of the zoning compatibility matrix of each Area Plan and Table 2-1 of the Draft countywide General Plan. As an example, the table incorrectly shows several Urban Residential designations of the Area Plans to be directly compatible with the Rural, ECU-Rural, Agricultural, ECU Agricultural, Open Space, and ECU-Open Space designations of the countywide General Plan. In addition, the table incorrectly shows Rural Residential Designations of the Area Plans to be directly compatible with the Agricultural, ECU-Agricultural, Open Space, and ECU-Open Space designations of the countywide General Plan. Additionally, the Open Space designations of the Area Plans are incorrectly shown as being directly compatible with the Agricultural and ECU-Agricultural designations of the countywide General Plan. Other inconsistencies exist within the table as well.

Neither the text of Chapter 11 nor Table 11-2 explains what is generally or precisely meant by “...empty square indicates limited compatibility because of a restriction from the development standards.” Without explanation, this phrase is meaningless.”

Unless Table 2-1 is corrected, the proposed General Plan will be internally inconsistent, exposing the County to a significant legal challenge in court.

Appendices:

Appendix A - Area Plan and Existing Community Land Use Maps:

As I stated in my comments on Table 2-2, Appendix A should make reference to maximum lot coverage standards contained in the Area Plans, and include the maximum lot coverage standards of each of the Existing Communities in the current countywide General Plan.

General Comment regarding maps: Because of the scale of many of the maps, the Existing Community boundaries and land use designations within the Existing Community areas are unreadable and cannot be checked for accuracy. In addition, many of the land use designation labels on the maps are misplaced or unclear as to what parcels they apply to.

Figure A-2: General Plan Land Use Diagram - Lake Sherwood/Hidden Valley Area Plan: This map shows land use designations of some of the Existing Community areas that are within the Thousand Oaks Area Plan, which is confusing.

Figure A-8: General Plan Land Use Diagram - Thousand Oaks Area Plan: This map shows land use designations of some of the Existing Community areas that are within the Lake Sherwood/Hidden Valley Area Plan, which is confusing. In addition, the labels for land use designations within the Camarillo Area of Interest are unnecessary.

Figure A-21: General Plan Land Use Diagram - North Simi Valley: It is unclear what parcels the ECU-Open Space designation applies to since it is in an area that is outside of an Existing Community.

Figure A-23: General Plan Land Use Diagram - Santa Susana: The boundaries of the Existing Community along the north and northwest are confusing.

DRAFT ENVIRONMENTAL IMPACT REPORT:

6.5.2 Alternative 2: Existing Community and Urban Area Designations Alternative (pg. 6-15):

Third paragraph states in part that *“Very Low Density or Low Density Residential lands outside of the Existing Community area designation (boundary) and Urban area designation (boundary) would remain the same as under the 2040 General Plan.”* (emphasis added). This is incorrect since the Very Low Density and Low Density Residential designations are only consistent with the Existing Community and Urban area designations, and are inconsistent with Rural, Agricultural and Open Space designations. Therefore, this sentence should be removed.

Pg. 6-16, Second paragraph, first sentence:

This sentence states: *“In addition, this alternative would employ policy incentives and disincentives to focus future population, housing, and employment growth within the Urban and Existing Community area designations.”* The feasibility and effectiveness of these incentives and disincentives is highly questionable, especially the transfer of development rights from Rural, Agricultural and Open Space designated lands.

Pg. 6-16, Fourth paragraph, first sentence:

“Overall population growth, housing, and employment projections for this alternative would be the same as under the 2040 General Plan.” This sentence is confusing in light of the next sentence of the paragraph that states that this alternative: *“... would result in substantially higher rates of population and job growth within these area designations relative to the 2040 General Plan.”* Therefore, the first sentence should be deleted.

Comparison of Significant Environmental Effects (pg. 6-16)

First sentence states: *“This alternative would focus new development (e.g., more housing units, increase commercial square footage) anticipated to result from population growth that is forecast to occur over the life of the 2040 General Plan within a smaller disturbance footprint.”* (emphasis added). This statement is illogical since the Draft 2040 General Plan’s Very Low Density and Low Density Residential designated areas would be changed to more intense land use designations, which would result in greater disturbances to the existing physical and planned environment.

Many of the other positive effects of this alternative seem to be based on the expectation of transfer of development rights from Rural, Agricultural and Open Space designated lands; however, there is no quantification of impacts and the benefits are based on an incentive that is highly speculative.

6.5.3 Alternative 3: Dense Cores Alternative

This alternative suffers from the same deficiencies as the preceding alternative: there is no quantification of impacts and the benefits are based on an incentive that is highly speculative.



February 24, 2020

VIA ELECTRONIC MAIL

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Re: Comments on Ventura County 2040 General Plan Draft Environmental Impact Report (State Clearinghouse No. #2019011026)

Dear Ms. Curtis:

On behalf of Aera Energy, LLC (“Aera”), we respectfully submit the enclosed comments on the Draft Environmental Impact Report (“DEIR”) prepared for the County of Ventura’s (“County”) proposed update to its existing General Plan (“GP 2040”).

As you may already know, Aera is the largest onshore oil and gas producer in the County, as well as its ninth largest tax-payer. Aera’s production operations within the County also generate significant downstream revenue for local businesses. In 2018, Aera’s local business expenditures exceeded forty million dollars. Aera’s daily production activities involve nearly one hundred full-time employees and several hundred contractors and vendors, all of whom in turn contribute to the long-term economic health and vitality of the County.

Our review of the DEIR has disclosed several categories of concern. As you are aware, the County must disclose and meaningfully evaluate all foreseeable direct and indirect physical consequences of its proposed action—the adoption of GP 2040. Based on our review of the DEIR, it is clear that the County has failed to fulfill its obligation in this regard. For example:

- In evaluating the consequences of adopting GP 2040, the DEIR relies on incomplete, erroneous or scientifically discredited information;
- In evaluating the consequences of adopting GP 2040, the DEIR ignores readily foreseeable impacts and/or misstates the severity of impacts;
- The DEIR proposes mitigation measures, the implementation of which is infeasible for a variety of known technological, legal and economic reasons;
- The DEIR and the Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020 (hereinafter, “Background

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager
February 24, 2020
Page 2

Report”) are incomplete with respect to their discussions of the environmental setting and regulatory setting; and

- The DEIR and Background Report fail to disclose and consider the fact that several proposed policies, implementing programs and mitigation measures are preempted by state and federal law and/or cannot be carried out without unlawfully impairing vested property rights.

We address these categories of concern in further detail in the Table of DEIR and Background Report Comments enclosed herewith and incorporated herein by reference.

In an effort to improve the technical and textual accuracy and adequacy of the DEIR and Background Report, as well as the GP 2040 Policies and Goals described therein, we have included several comments, proposed revisions and clarification requests in the enclosed Table of DEIR and Background Report Comments. We ask that this letter and all enclosed materials be included in the record of proceedings in this matter and carefully considered by the County.

Finally, it is our expectation that the extensive comments noted herein will be given the same careful consideration as comments submitted by others outside our industry, given the importance of this document to the current and future residents of Ventura County. It is our expectation that complete and thoughtful responses will be prepared for each of the comments enclosed herewith, and the DEIR will be revised and recirculated accordingly. A mere “comment noted or comment received” will not suffice. We look forward to working with County staff to resolve the issues addressed herein and we further look forward to recirculation of a DEIR that meets the applicable legal standards.

As requested, we are providing the name of our point of contact, mailing address and email address as follows:

William J. Spear III, Manager of Operations
3382 N. Ventura Avenue
Ventura, CA 93001
E-mail: WJSpear@aeraenergy.com

Sincerely,



William J. Spear III
Ventura Manager of Operations
Aera Energy, LLC



Table of DEIR and Background Report Comments

| Document & Page No. | Comment/Proposed Revision/Clarification Request |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DEIR: pg. 4.1-16 | Policy NV-1.12. The DEIR does not address the consequences of shifting the “scenic approach” designation to Canada Larga and Ventura Ave. Such a shift is expected to conflict with the long terms use objectives of the North Ventura Ave Area Plan, which are industrial in nature. |
| DEIR: pg. 4.1-23 | The DEIR does not disclose the impacts associated with implementation of Program J itself, nor does it disclose whether Program J implementation would adversely impact the existing built environment, foreseeable future development or introduce conflicting use pattern objectives. Additionally, the DEIR does not disclose which highways would be affected by implementation, which makes it impossible to evaluate the scope of impact. |
| DEIR: pg. 4.1-23 | The DEIR does not acknowledge or address the fact that certain facilities (such as oil and gas drill sites) cannot be sited so they are not readily seen, given known drilling and operational constraints. Such realities should be considered in the DEIR. |
| DEIR: pg. 4.1-25 | In its discussion of Open Space, the DEIR states that development is “to be sited and designed to prevent significant degradation of a scenic view or vista.” Again, the DEIR does not consider the fact that various authorized uses can only be installed in specific locations, which could foreseeably include installation in a location containing a scenic view or vista. |
| DEIR pg. 4.3-5 | Methodology. The DEIR utilizes various definitions of “sensitive receptors” in Section 4.3. The County states that “sensitive receptors are considered to be populations or uses that are more susceptible to the effects of air pollution than the general population”. Therefore, a residence would not be considered a “sensitive receptor”. The DEIR must explain why a typical residence would be excluded from any assessment of toxic air contaminants. |
| DEIR pg. 4.3-6 | Thresholds of Significance. The DEIR concludes that there are no known safe concentrations of toxic air contaminants (TAC). The DEIR should provide a reference to scientific studies that support this statement. Everyone in the County is exposed to TACs due to second-hand smoke, products of combustion, etc. Does this mean no one in the County is “safe”? Why would any additional development be allowed in the County under these conditions? |
| DEIR pg. 4.3-8 | Policy COS 7.8. The County is proposing a policy that requires gases from new discretionary oil and gas wells to be collected and used in order to minimize flaring. Landfills and wastewater treatment plants commonly employ flares to incinerate gas from those facilities. This policy should be expanded to include any flare associated with a discretionary project. If not, the DEIR should be revised to describe how the pollution from a flare at a landfill or wastewater treatment facility differs from a flare at an oil and gas well. |
| DEIR pg. 4.3-15 | Under Impact 4.3-2, the DEIR states that, “Further, as actual construction phasing is not known, it is possible that emissions may exceed or be below modeled emissions shown in Table 4.3-2. Nonetheless, based on conservative modeling, it is likely that emissions would exceed countywide and Ojai Valley thresholds at some point during buildout of the 2040 General Plan.” Yet, the DEIR provides no evidence to support the assumption that emissions would exceed countywide thresholds. Instead, the DEIR discloses that |

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| | population growth for the County will be negligible through 2040, which contradicts the assumption that construction associated with such growth would exceed applicable thresholds. |
| DEIR: pg. 4.3-15 | Mitigation Measures AQ-1a and AQ-1b are duplicative. Measure AQ-1b does not provide any mitigation benefits over and above those stated in Measure AQ-1a. |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. This mitigation measure requires “[p]re-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations.” Although this mitigation measure will decrease fugitive dust emissions, no analysis is provided in the DEIR regarding the amount of water that will be needed or where the water will be obtained. The DEIR must analyze all potential impacts. This mitigation measure could have substantial impacts on water use and have the unintended consequence of increasing emissions of GHGs, PM2.5, and NOx by having to utilize water trucks. The DEIR needs to be revised and recirculated to analyze these potential impacts. |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. This mitigation measure requires “treatment” of various portions of future construction sites within the County to minimize fugitive dust. A treatment option listed is “periodic watering”. Again, this mitigation measure could have substantial impacts on water use and have the unintended consequence of increasing emissions of GHGs, PM2.5, and NOx by having to utilize water trucks. The DEIR needs to be revised and recirculated to analyze these potential impacts. |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. The DEIR concludes that after mitigation, “criteria air pollutants and precursors would be minimized through the use of the highest rate [sic] diesel engines available”. The highest rated diesel engines as determined by the U.S. Environmental Protection Agency are Tier 4 engines, which offer substantially reduced NOx emissions. Contrary to the statement in the DEIR, none of the mitigation measures listed in Section 4.3 require the use of Tier 4 engines for nonroad diesel-fired construction equipment. The DEIR must clarify whether Tier 4 engines are in fact required to mitigate NOx emissions at all discretionary construction projects. |
| DEIR pg. 4.3-17 | The NOx emissions listed in Table 4.3-3 can only be achieved using Tier 4 engines on all nonroad diesel-fired construction equipment. For example, NOx emissions are limited to less than 3.0 g/bhp-hr for a Tier 3 nonroad engine rated between 100 hp and 750 hp. It is not uncommon for construction companies to use diesel equipment rated at 250 hp. operating at a 50% load factor over an 8-hour day, this Tier 3 unit would emit around 7 lb/day of NOx, which is substantially higher than the NOx emissions estimated in Table 4.3-3. The DEIR should specify whether Table 4.3-3 is based on using Tier 4 engines exclusively. |
| DEIR pg. 4.3-21 | The DEIR relies on the 2005 Land Use Handbook that recommends 500 ft setbacks on highly used roads greater than 50,000 vehicles per day. This 2005 document is now outdated as CARB released their advisory Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways in 2017. The more recent research concludes, “near-roadway pollution exposure had been previously underestimated and that people living as much as 1,000 feet from freeways were being adversely impacted by poor air quality”. The DEIR needs to be updated to reflect this more current research and recirculated to disclose that research to the public and decision makers. |
| DEIR pg. 4.3-21 | The DEIR proposes modifying policy COS-7.2 to require new discretionary oil wells be located a minimum of 1,500 ft from a residence and 2,500 ft from a school. As stated in |

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| | <p>previous comments, the DEIR allows schools and residences to be sited within 500 ft of a high-traffic freeway. CARB routinely states that diesel exhaust is responsible for 70% of the cancer risk from airborne toxics in California (for example https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts). If 500 ft is sufficient to protect a person from diesel exhaust that accounts for 70% of the cancer risk, how can anyone justify a larger buffer zone around a discretionary oil well due to presumed toxic air contaminants? The existing zoning standards are adequate to protect the public from new oil wells; the imposition of the proposed new policy is not supported by scientific evidence.</p> |
| DEIR pg. 4.3-22 | <p>Policy HAZ-10.X. When describing setback requirements for transportation corridors, residences are included within the discussion of sensitive receptors. As stated above in a preceding comment, the County should more clearly identify when residences are considered sensitive receptors.</p> |
| DEIR: pg. 4.4-2 | <p>Recommended textual change shown in bold and underline: “Based on an updated review of the CNDDDB, as well as a search of the California Native Plant Society (CNPS), Inventory of Rare and Endangered Plants of California database, the U.S. Fish and Wildlife Service (USFWS), and the Information for Planning and Consultation database, there are 75 additional special-status plant species known or with potential to occur in Ventura County (Table 4.4-1) (CNDDDB 2019; CNPS 2019; USFWS 2019).”</p> |
| DEIR: pg. 4.4-10 | <p>Recommended textual change shown in bold and underline: “the County’s aerial imagery and other relevant biological GIS data layers such as wetlands, waterbodies, vegetation, habitat connectivity and wildlife corridors; and updated CNDDDB, CNPS, Inventory of Rare and Endangered Plants of California database, and USFWS Information for Planning and Consultation database search results (CNDDDB 2019; CNPS 2019; USFWS 2019).”</p> |
| DEIR: pg. 4.4-14 | <p>Recommended textual change shown in bold and underline: “Based on the review and recommendation of a qualified biologist the County shall identify sensitive biological resources as part of any land use designation change to the General Plan Land Use Diagram or zone designation change to the Zoning Ordinance that would intensify the uses in a given area. The County shall prioritize conservation of areas with sensitive biological resources. (MPSP) [Source: New Policy]”</p> <p>It is critical that a qualified biologist ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc.</p> |
| DEIR: pg. 4.4-15 | <p>Recommended textual change shown in bold and underline: “Consideration of Impacts to Wildlife Movement. When considering proposed discretionary development, County decision-makers the County shall consider the development’s potential project-specific and cumulative impacts on the movement of wildlife on the recommendation of and based on evidence supplied by a qualified biologist at a range of spatial scales including local scales (e.g., hundreds of feet) and regional scales (e.g., tens of miles). (RDR) [Source: Wildlife Corridor Policy 3/19/19]”</p> <p>It is critical that a qualified biologist ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc.</p> |
| DEIR: pg. 4.4-16 | <p>Recommended textual change shown in bold and underline: “Policy COS-1.13: Partnerships for Protection of Natural and Biological Resources. The County shall</p> |

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| | continue to work in partnership with agencies, organizations, <u>property owners, business owners</u> and entities responsible for the protection, management, and enhancement of the county's biological resources.” |
| DEIR: pg. 4.4-17 | Recommended textual change shown in bold and underline: “ Program A: Standards for Compact Development. The County shall update the Non-Coastal Zoning Ordinance to include development standards for project design that features compact development adjacent to scenic or sensitive biological resources, <u>as determined by a qualified biologist.</u> [Source: New Program]” It is critical that a qualified biologist to ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc. |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program D: Research Feasibility of Updating Vegetation Maps. In partnership with other natural resource agencies, <u>businesses owners, property owners</u> and organizations, the County shall explore the feasibility of updating vegetation maps for unincorporated areas to facilitate the accurate analysis of potential impacts of development on vegetation communities and other sensitive biological resources.” It is critical that all impacted entities are involved in the partnership of updating vegetation maps. |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program E: Update Non-Coastal Zoning Ordinance Standards for Vegetation Communities. Based on the results of Implementation Program COS-D, (updated vegetation mapping), the County shall develop or modify regulations and development standards to ensure adequate protections for vegetation <u>mapping</u> , if necessary.” |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program F: Evaluate Increase to Standard Setback from Wetland. <u>A County-approved, qualified biologist</u> shall evaluate whether a standard 200-foot setback from wetlands should apply to development in order to improve water quality, reduce the impacts of flooding and provide adequate protection for sensitive biological resources [Source: New Program]” |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program H: County Tree Planting Program. The County shall plant at least one thousand <u>native-species</u> trees annually on County property. [Source: New Program].” |
| DEIR: pg. 4.4-20 | Recommended textual change shown in bold and underline: “The Rural land use designation would allow for low-density and low-intensity land uses such as residential <u>uses es</u> and other rural uses which are maintained in conjunction with agricultural and horticultural uses.” |
| DEIR: pg. 4.4-21 | Recommended textual change shown in bold and underline: “. . . invasive, nonnative species), as a result of future development under the 2040 General Plan. Future development under the 2040 General Plan that could result in impacts on biological resources <u>and therefore may require project-specific environmental review under CEQA.</u> ” |
| DEIR: pg. 4.4-31 | Recommended textual change shown in bold and underline: “Policies COS-1.7, COS-1.8, COS-1.9, COS-1.10, and COS-1.11 include requirements <u>to requirements</u> for environmental review for projects within 300 feet of wetland habitat, implementation of |

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| | 100-foot setbacks from wetland habitat, incorporation of protective design features to avoid impacts to riparian habitat.” |
| DEIR: pg. 4.7-3 | Policy Haz 4.2. The DEIR should disclose the location of known, active faults (this information is readily available) and examine the physical consequences of linear infrastructure around same. Since the location of anticipated development and the type of development in such locations is known and disclosed in the DEIR, the rerouting consequences can be considered, quantified and mitigated now. |
| DEIR: pg. 4.7-3 | Policy Haz 4.6. This policy potentially interferes with state water board regulations regarding storm water run-off pollution prevention. |
| DEIR: pg. 4.7-4 | Policy Haz 4-15. The DEIR assumes, without any credible supporting evidence, that “extraction wells” cause or contribute to land subsidence. It can be shown, by readily available substantial evidence, that rock matrices within the County are not susceptible to land subsidence with proper material balance. |
| DEIR: pg. 4.8-1 | Incomplete Regulatory Setting. There is no mention of the California Global Warming Solutions Act of 2006 (AB32), the Regulation for Mandatory Reporting of Greenhouse Gas Emissions (MRR), or State Cap and Trade program in the DEIR. It is imperative that these regulations be identified and discussed in the DEIR (as opposed to being discussed in passing in the 1000+ page Background Report). |
| DEIR pg 4.8-5 | The California Air Resources Board (CARB) partnered with Scientific Aviation Inc. to measure methane emissions within California. Their report Statewide Airborne Methane Emissions, Measurement Survey dated May 13, 2019 concludes, “landfill sites were found to be the largest methane emitters on a per site basis”. The report describes how an aircraft flew 18 times around the Toland Road Landfill in Ventura County on October 16, 2017 and another 16 laps on May 14, 2018 measuring methane emissions. Using this data, the report concludes that the methane emissions from the Toland Road Landfill averages 2,364.9 kg/hr, which equates to approximately 20,700 MT/yr of methane. The DEIR assigns methane a global warming potential of 28, so the Toland Road Landfill would average 580,000 MT/yr CO ₂ e based on this CARB sponsored study. The DEIR estimated the GHG emissions from the same landfill to be 22,591 MT CO ₂ e from waste generated from unincorporated Ventura County during 2015 and 74,701 MT CO ₂ e from “waste-in-place”; for a total of 97,292 MT/yr CO ₂ e from the Toland Road Landfill. The DEIR should evaluate the various methods of determining GHG emissions from landfills to inform the readers that the GHG emissions from solid waste could be significantly higher than the estimates provided in the DEIR. |
| DEIR pg. 4.8-5 | The GHG emissions from solid waste in the County are further underestimated by ignoring the composting operations within the County. Although a properly operated composting operation can decrease methane emissions from waste, the process is designed to create CO ₂ . The DEIR needs to be updated to account for waste diverted from landfills, which would include composting operations. |
| DEIR pg. 4.8-5 | The 2015 baseline GHG inventory for stationary sources is listed as 275,096 MT CO ₂ e in Table 4.8-1. This estimate is described in Appendix D as representing GHG from oil and gas operations and the source is “CARB Mandatory Reporting Rule – 2016 (Latest available as of 11/6/2017)”. Various entities report their GHG emissions to CARB via their Mandatory Reporting Regulation (MRR). The regulation requires that the reported GHG emissions be verified by a third-party approved by CARB. After verification, CARB publishes a list of all entities reporting under the MRR and posts on their website |

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| | <p>(https://ww2.arb.ca.gov/mrr-data). This CARB published data shows that only three entities in the County reported in 2016 under the Oil and Gas Production industry sector. These three oil and gas production entities in Ventura County reported a total of 21,702 MT CO₂e. To put this in perspective, California State University, Channel Islands reported 84,042 MT CO₂e for the same timeframe. Nevertheless, the DEIR erroneously construes oil and gas operations as a major source of GHG emissions in the County. This misleads the public and the decision makers.</p> |
| DEIR 4.8-5 | <p>In lieu of focusing on GHG data specific to the County, the DEIR apparently applies data for the entire State to estimate GHG emissions from the County with no explanation as to why. Oil production and processing techniques vary throughout the State depending on the geologic formation being produced. CARB has recognized this variability and has developed carbon intensity values for the numerous crude oils needed to fuel California. As stated above, a total of three oil and gas production entities in Ventura County reported a total of 21,702 MT CO₂e. These three facilities produced approximately 6,570,000 bbls of crude oil in 2016 versus the total crude oil production of 7,729,845 bbls within the County. As such, these three facilities accounted for 85% of Ventura County's oil production. Applying the County's technique of estimating GHG emissions based on the amount of crude oil production, the oil and gas production and processing sector represented approximately 25,500 MT CO₂e emissions in 2016, which is significantly less than the GHG baseline estimate listed in the DEIR for stationary sources. The DEIR must explain why it is more accurate to ignore data specific to the County and rely on a generalized dataset.</p> |
| DEIR pg. 4.8-6 | <p>The projected GHG emissions from the "solid waste" sector as presented in Table 4.8-2 are more fully described in Appendix D. The methane emission projections for waste-in-place at in service landfills appear to be questionable. For example, the methane emissions from the Toland Road Landfill decreases from 74,701 MT CO₂e in 2015 to 66,248 MT CO₂e in 2020 for an 11% decrease in GHG emissions. Comparing the Simi Valley Landfill, which emitted 172,093 MT CO₂e in 2015 and dropping to 171,552 MT CO₂e in 2020 for only a 0.3% decrease. Considering that the Toland Road Landfill is scheduled to remain in service longer than any other landfill, please explain why the GHG emissions from the Toland Road Landfill decrease at much faster rate than the Simi Valley Landfill.</p> |
| DEIR pg. 4.8-6 | <p>The GHG projections from stationary sources provided in Table 4.8-2 appear to be based on the County's projections of increasing oil production. In Appendix D, the EIR utilizes a baseline oil production of 8,428,402 bbls/yr in 2015. By 2020, oil production in the County is forecasted to increase to 8,819,019 bbls/yr, accounting for a 4.6% increase in oil production over this five-year span. California provides annual summaries of oil production by county. The most recent report (www.conservation.ca.gov/calgem/pubs_stats/annual_reports/Pages/annual_reports.aspx) published by the Division of Oil, Gas and Geothermal Resources (DOGGR), now the California Geologic Energy Management Division, available is for 2018 and lists oil production in the County as 6,894,516 bbls/yr. Looking back to 2013, the same agency reported oil production from Ventura County as 8,973,076 bbls/yr. As reported by California, oil production in the County dropped 23% over a five-year span from 2013 to 2018, yet the DEIR projects oil production increasing 4.6% during a five-year span from 2015 to 2020. The DEIR needs to clearly describe why the County is projecting a drastic</p> |

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| | <p>turnaround in County oil production starting in 2019 and continuing into the foreseeable future. This assumption directly impacts the GHG projections listed in Table 4.8-2 and is not consistent with historical data or commonly available market projections.</p> |
| DEIR pg. 4.8-6 | <p>In the DEIR analysis of Impact 4.12-3, the County concludes that the 2040 General Plan could hamper or preclude access to oil and gas resources. The DEIR considers this impact to be “potentially significant” even after considering available mitigation measures. Section 4.8 of the DEIR needs to be modified to describe how oil production in the County is projected to steadily increase into the foreseeable future, while the DEIR concludes in Section 4.12 that the General Plan could “preclude expansion of existing oil and gas operations, ... thereby hampering or precluding access to the resource.”</p> |
| DEIR pg. 4.8-6 | <p>The numerous errors made to overstate the GHG emissions from stationary sources are compounded when making projections in Table 4.8-2 to the point that these estimates cannot be taken seriously. First, the 2015 baseline emissions from stationary sources should be closer to 25,500 MT CO₂e using data from the County (as calculated above); not 275,096 MT CO₂e based on data from outside the County. Secondly, oil production is contracting in the County and not expanding as assumed in the DEIR. From 2013 through 2018, crude oil production in the County dropped on average 415,700 bbls/yr. Using this trajectory, crude oil production in the County should be closer to 6,100,000 bbls in 2020, as opposed to 8,819,019 bbls projected in the DEIR. Using the same method as utilized in the DEIR to project GHG emissions, the 2020 GHG emissions from stationary sources should be around 20,000 MT CO₂e (calculated as 25,500 MT CO₂e * 6,100,000 bbls / 7,729,845 bbls)</p> |
| DEIR 4.8-9 | <p>In describing the County’s obligation under CEQA, the DEIR states, “a lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emission resulting from a project.” As the County has chosen to particularly focus on oil and gas production in this DEIR, the County has fallen short of its obligation to describe the impact on GHG emissions due to the 2040 General Plan. There is consensus that climate change is a global issue. GHG reductions are necessary and the County must play a part, but the County cannot by itself thwart the impacts of climate change. To measure global issues such as climate change, the DEIR should not be geographically confined to County. Crude oil is a worldwide commodity openly traded on exchanges. As the DEIR notes in Section 4.12, only 31% of the crude oil consumed in California is produced in State. Shutting down all oil production in the County will not decrease the market for crude oil. To the contrary, California will just import more crude oil from other countries, with the same portion of the refined products, including gasoline and diesel, being transported to the County’s consumers. Therefore, GHG impacts due to oil and gas production in the County is dependent on the amount of carbon associated with the crude oil produced within the County. CARB publishes Carbon Intensity values for the various crude oil sources under their Low Carbon Fuel Standard Regulation. The most recent published data is from 2018 (https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/2018_crude_average_ci_value_final.pdf). In this report, CARB determined, on an annual average, the Carbon Intensity of the crude oil used in California during 2018 was 12.35 gCO₂e/MJ. According to the same report, the crude oil produced from the Ventura Field, the largest oil production field in the County, had a Carbon Intensity of 4.54 gCO₂e/MJ. As such, the crude oil from the Ventura Field results in 63% less GHG</p> |

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| | emissions than the average crude oil used in California. The DEIR should be revised to describe the climate change benefits realized should the 2040 General Plan promote the continued use and expansion of crude oil produced within the County. |
| DEIR 4.8-23 | Policy COS 7.4. The County is proposing a policy to “require discretionary development for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible”. Is it the County’s position that only oil and gas exploration and production development projects contribute GHG emissions? If not, then such a policy should be expanded to include all discretionary development projects. By limiting this policy to oil and gas exploration and production development projects, the County is making an arbitrary determination not based on any facts presented in the record. |
| DEIR 4.8-23 | Policy COS 7.7. The County is proposing a policy to “require new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be trucked.” Numerous development projects can result in increased trucking including warehouses, agricultural processing facilities, military installations, and distribution centers. If the County is concerned with GHG emissions from trucking, why would this proposed policy be limited to new discretionary oil wells? There is no data in the DEIR suggesting that new discretionary oil wells are anticipated to cause a significant increase in GHG emissions due to trucking. The proposed policy should be revised to address discretionary development projects that would actually increase trucking or the County is making an arbitrary determination not based on any facts presented in the record. |
| DEIR 4.8-25 | The County is proposing to evaluate the feasibility of establishing a local tax on oil and gas operations. Later in Section 4.8 the DEIR states that increased taxes on oil and gas facilities may reduce GHG emissions. SB32 designates “the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases.” CARB has established a cap-and-trade program to regulate GHG sources, including oil and gas operations. In fact, the County attempts to rely on a GHG emission inventory from CARB in the DEIR to estimate the GHG emissions from stationary sources in the County. These stationary sources purchase GHG allowances during CARB authorized auctions to mitigate their GHG emissions. CARB then invests the auction proceeds to reduce GHG emissions in California. The County cannot usurp authority designated to a State agency. |
| DEIR 4.8-25 | GP 2040 and the accompanying DEIR does not establish a nexus between county GHG emissions and potentially establishing a local tax on oil and gas operations. As demonstrated in the County’s own documents, the DEIR concludes that stationary sources only contribute 14.5% of the calculated GHG emissions countywide in 2015 (even while overstating stationary source emissions as discussed in other comments). Transportation accounted for 36.5%, solid waste handling was 17.6% and buildings attributed 17%; all greater than the dramatically overstated GHG emissions from stationary sources, while understating GHG emissions from County operated solid waste operations. Why would the County not consider establishing/increasing local taxes on transportation fuels or establishing/increasing gate fees at the County landfills? Both sectors contribute significantly more GHG emissions in the County than oil and gas operations. If taxing an activity reduces GHG emissions from that sector (a highly speculative position), then why would increased taxes/fees from transportation and solid waste disposal not decrease GHG emissions? The County appears to be arbitrarily |

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| | burdening a single industry sector by increasing taxes with no regard to the data presented in the DEIR. |
| DEIR pgs. 4.8-11 through 4.8-37 | Multiple 2040 General Plan Policies and Implementation Programs are listed in this section (GHG). However, a significant number of these Policies and Programs have absolutely nothing to do with Greenhouse Gas Emissions or climate change (examples include Policies CTM-2.1, CTM-2.10, CTM-2.19, PFS-4.4, COS-2.10, WR-4.1, Implementation Program J, Implementation Program M, etc.) |
| DEIR pg. 4.8-23 | Policy COS 7.4. The DEIR does not consider the consequences of, defects of, or infeasibility of this policy. California and the County are net importers of energy—as an importer, the County cannot necessarily control whether imported energy is provided from 100 renewable sources. Thus, this policy is potentially infeasible to implement. |
| DEIR pg. Pg. 4.8-50 | Recommended textual change shown in bold and underline: “... the County cannot meaningfully quantify the effect of all its 2040 General Plan policies and programs on future GHG emissions, and <u>there therefore</u> , it cannot conclude, at this program level of analysis, that future GHG emissions in the county under the 2040 General Plan would be sufficiently reduced to meet the State’s 2030 or post-2030 targets.” |
| DEIR pg. Pg. 4.8-52 | Recommended textual change shown in bold and underline: “However, due to the County’s minimal growth, most of the forecast GHG emissions in 2030 and beyond are caused or influenced by <u>from</u> energy use in existing buildings, vehicle use and travel behavior on existing transportation systems, landfilled waste, and agricultural uses where the County has limited authority to enforce stringent actions resulting in GHG reductions beyond what have been already been included in the 2040 General Plan and the mitigation measures identified in Impact 4.8-2.” |
| DEIR pg. 4.9-7 | Policy HAZ – 5.5. The DEIR fails to define “alternative technology” for management of hazardous waste. It is unclear whether such technology even exists. Furthermore, the DEIR fails to disclose and evaluate the consequences of onsite treatment of hazardous waste. The location of future development is known, as is the location of future development expected to involve onsite use of hazardous materials (e.g. industrial uses). The foreseeable potential impacts of onsite waste treatment at these locations must be evaluated in the DEIR. |
| DEIR pg. 4.9-24 | The term “structure” is undefined for purposes of brush clearing. As a result, a reader of the DEIR cannot determine the scope of physical consequences associated with brush clearing (amount of soil disturbed, amount of vegetation disturbed, impacts to water quality from soil disturbance). Moreover, the DEIR fails to disclose and consider such physical consequences, which may be severe, depending on how the term “structure” is defined. |
| DEIR pg. 4.10-5 | <p>“Policy PFS-6.5. Stormwater Drainage Facilities. The County shall require that stormwater drainage facilities are properly designed, sited, constructed, and maintained to efficiently capture and convey runoff for flood protection and groundwater recharge. (RDR).”</p> <p>The DEIR does not define what constitutes “stormwater drainage facilities” (e.g. drain, basin, treatment plant). As such it is impossible to determine the scope of the policy and any associated physical consequences (such as construction disturbance).</p> |
| DEIR pg. 4.10-5 | “Policy PFS-6.7. Flood Control and Beach Sand Nourishment. The County shall include beach sand nourishment as an important factor in the design and maintenance of |

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| | <p>flood control facilities. (SO) <i>[New Policy]</i>”</p> <p>The DEIR does not define the term “flood control facilities.” Again , this makes it impossible to understand the applicability and scope of this policy.</p> |
| DEIR pg. 4.10-5 | <p>Recommended textual change shown in bold and underline: Policy HAZ-2.1: Principal Floodway Purpose. The County should limit <u>new</u> land use in the regulatory floodway, as identified in the Ventura County Flood Plain Management Ordinance, limited to open space, agriculture, <u>pre-existing structures</u> or passive to low intensity recreational uses, subject to the approval of the County Public Works Agency. The floodway’s principal use should be maintained for safely conveying floodwater away from people and property while protecting ecological functions of the <u>Ventura</u> river. (RDR) <i>[Source: Existing GPP Policy 2.10.2.1, modified].</i>”</p> |
| DEIR pgs. 4.11-7 through 4.11-88 | <p>The DEIR’s definition of and treatment of oil and gas resources as separate from/different from mineral resources is a significant error and is inconsistent with superior state/federal law as well as controlling court decisions. The DEIR’s mischaracterization of oil and gas as not amounting to a mineral resource renders all analyses and impact conclusions relating to same legally defective.</p> |
| DEIR pg. 4.11-8 | <p>Policy LU 6.1. Agricultural Buffers: The DEIR vaguely describes the imposition of buffers for agricultural uses without any measurable values/distances for these buffers. Thus it is impossible to evaluate the consequences such buffers will have on future adjacent land uses. Moreover, the DEIR is inconsistent with respect to the imposition of buffers at measureable distances for certain uses as opposed to others. Certain, measurable buffer distances (such as the proposed setback for oil and gas production) are imposed, while other uses are subject to no such measureable setbacks. This will result in a nonsensical patchwork of development. Reading the DEIR’s land use section as a whole, a future mineral extraction use in a location zoned for extraction would be held to a measurable setback in terms of future expansion, but a residential use with no measureable setback limitations could be installed immediately adjacent to a mineral extraction use.</p> |
| DEIR pg. 4.11-16 | <p>Policy HAZ-2.3. The DEIR fails to disclosure what constitutes an “incompatible land use.” This disclosure cannot be deferred, given that the scope and number of uses deemed “incompatible” will have dramatic physical consequences. If a large number of uses are “incompatible,” then the near-total inability to develop in the flood plain is a direct physical consequence that must be considered now.</p> |
| DEIR pgs. 4.11-1 through 4.11-24 | <p>The GP 2040 zoning map/land use map referenced throughout the DEIR’s land use section is not contained in the land use section. A reader has no way to review this section side-by-side with the maps being referenced.</p> |
| DEIR pg. 4.12-8 | <p>COS Revised Policy 7.2. As discussed above, the setback criteria proposed with adoption of GP 2040 affects selected, targeted industries. While oil and gas operations cannot expand to within 1500 feet of a “sensitive” use, such “sensitive” uses could certainly expand to within mere feet of existing oil and gas operations. This evidences the fact that this setback measure is not being adopted for a legally proper purpose.</p> |
| DEIR pg. 4.12-8 | <p>Policy COS 7.3. This Policy unlawfully impairs vested property rights and disregards well-settle controlling law concerning a mineral owner’s right to recover resources from his or her sub-surface property. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed.</p> |

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| DEIR pg. 4.12-8 | Policy COS 7.7. This policy is preempted by state and federal regulations. The DEIR disregards this. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed. |
| DEIR pg. 4.12-21 | The DEIR concedes that the majority of the COS policies to be adopted as part of the proposed GP 2040 are adopted for the express purpose of phasing out local oil and gas production within the County. The DEIR further concedes that the County will, as a direct result of this proposed phase-out, need to import foreign sources of oil and gas, and further acknowledges that the importation of such sources will have a more severe GHG production impact than reliance on local oil and gas resources. The DEIR then unlawfully punts on consideration of that more severe impact by stating that those impacts will occur "outside the GP 2040 plan area." This abdication of responsibility for GHG analysis is not only hypocritical given GP 2040's objective of combating climate change, but also unlawful. The more severe GHG impacts associated with the importation of foreign oil and gas are known and must be considered now. To omit this evaluation is to deprive the public and decision makers of the ability to fully and fairly understand and consider the impacts of adopting GP 2040. |
| DEIR pg. 4.12-21 | <p>The DEIR's unsupported conclusions regarding horizontal drilling access are demonstrably false. The DEIR states that: "[w]hile the amended policy would put limitations on the placement of new discretionary oil and gas wells, it would not necessarily prohibit access to the oil and natural gas resources being sought. In resource locations near sensitive land uses, directional drilling (including horizontal drilling) techniques could be utilized.</p> <p>Ample evidence, readily available to the DEIR preparers, disproves the foregoing. The aforementioned GP 2040 Policy (COS 7.2) impairs access to and recovery of approximately 80 million bbls of reserves/resources. The structural makeup of the reservoirs containing these reserves does not allow for horizontal drilling due to an average bed thickness of 2ft. A vertically stacked thinly bedding reservoir would require hundreds of wells to produce the 400-1500ft of interval and this is not economically viable in any historical economic condition. Directional drilling would not be possible to replace all of the reserves/resources due to terrain surrounding this area limiting surface locations as well the reservoir structural need to drill north-south directional paths from east or west locations.</p> |
| DEIR pg. 4.12-27 | COS Policy 7.8. This policy is not only preempted, but is also inconsistent with VCAPD rule 54 as it notes that all new well gas would be piped through the same gathering system in existing fields. Outside of running a new pipeline to a different gas processing system, there would be no way to break out the gas from the general field production that goes through the current gathering system through the gas plant, sales point, or flare. |
| DEIR pg. 4.13-14 | The elimination of back up alarms on equipment creates a direct, increased safety risk that is not considered in the DEIR. |
| DEIR pgs. 4.13-1 through 4.13-29 | The DEIR makes numerous, unsupported assumptions regarding the noise generated by oil and gas operations. Oil and gas operations generate noise equivalent to other industrial uses. The DEIR does not, and cannot, provide evidence demonstrating that oil and gas production generates noise above and beyond the noise levels generated by industrial activities, let alone that it produces objectionable noise. |



24 February 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, California 93009-1740
susan.curtis@ventura.org, GeneralPlanUpdate@ventura.org

Re: Request for 90-Day Comment Deadline Extension on the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan

Dear Ms. Curtis:

The California Native Plant Society (CNPS) respectfully requests an extension of the comment period for the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan (State Clearinghouse No. 2019011026).

The current 45 day comment period imposes a deadline of February 27, 2020, and is inadequate to allow full review of:

- (1) the Draft EIR which covers complex issues in its 598 pages plus six appendices, including a 1,034 page background report and
- (2) the Public Review Draft of the General Plan, which is 463 pages and includes four appendices.

It is simply not possible for CNPS to meaningfully review and comment on these documents in such a short timeframe.

CNPS has a long collaborative history with the Ventura County Planning Division and wishes to ensure that that good relationship is maintained, and that the botanical resources of Ventura County are given the appropriate level of attention it deserves.

Due to the sheer volume and complexity of the materials, we believe an additional 90 days is required. Extending the deadline to May 27, 2020 would allow for a more comprehensive review and more useful comments.

Respectfully,

David L. Magney, CNPS Rare Plant Program Manager
Certified California Consulting Botanist No. 0001

Nicholas Jensen, PhD, CNPS Conservation Scientist



City of Camarillo

601 Carmen Drive • P.O. Box 248 • Camarillo, CA 93011-0248

February 21, 2020

Ventura County Resource Management Agency Via E-Mail: GeneralPlanUpdate@ventura.org
Planning Division
Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

RE: Response to Ventura County 2040 General Plan EIR (SCH No. #2019011026)

Dear Ms. Curtis:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (EIR) for the Ventura County 2040 General Plan that has been prepared by the County of Ventura for public review pursuant to the California Environmental Quality Act (CEQA) Guidelines. After reviewing the EIR, we submit the following comments for your consideration.

Agricultural Land and Buffers to Protect Sensitive Receptors

City's Position: The EIR should require buffers around City jurisdictions and require farming techniques that will protect existing sensitive receptors from strong, unpleasant odors associated with hemp farming.

Reasoning: The EIR only addresses agricultural odors from the standpoint of ensuring that new sensitive receptors are not placed in proximity to existing agricultural uses without providing disclosure to new uses and that it does not limit the right to farm. The EIR should address odor impacts associated with types of agricultural crops – and how they are farmed – that may have a substantial odor impact on existing sensitive receptors. The County should ensure that existing sensitive receptors will not be adversely impacted based on the introduction of new types of crops being farmed such as industrial hemp.

Very Low Density Residential (VLDR)

City's Position: To ensure that development in the County adjacent to development in the City is compatible, the VLDR designation should have a maximum density of three units per acre.

Reasoning: The General Plan Land Use Element proposes a land use category of predominantly Very Low Density Residential (VLDR) within the Camarillo Sphere of Influence north of the City limits. Page 2-21 of the County Land Use and Community Character Element indicates this designation would have a maximum density of four dwelling units per acre with a minimum lot size of 10,000 square feet. This is in conflict with Page 2-36, which indicates the VLDR designation has a maximum density of three dwelling units per acre. The City of Camarillo

General Plan Land Use Element designates this area in the Sphere of Influence, north of the City limits, as Rural Density Residential (2.5 dwelling units per acre). This is consistent with the designation of most of the land that is in the City adjacent to the City boundary line, which is designated Rural Density Residential.

Local Infrastructure

City's Position: Policies in the County General Plan should ensure new development on County land within and adjacent to the City Sphere of Influence is compatible with surrounding land uses in the City and that the use will not adversely impact local infrastructure.

Reasoning: The increase in density and 10,000 square foot minimum lot size in the VLDR designation adjacent to City limits within the City's Sphere of Influence needs to be analyzed in the EIR with respect to land use compatibility with adjacent development within the City, and impacts on City utilities and streets, as these areas may be annexed and connected to City infrastructure.

Wireless Communication Facilities

City's Position: The General Plan should encourage cooperation between the County and Cities for the proper placement and design of wireless communication facilities.

Reasoning: The City has provided comments to the County to oppose the placement of an 80-foot tall mono-Eucalyptus along Pleasant Valley Road at Bridgehampton Way, which divides the City and County boundaries. Pleasant Valley Road is a designated scenic corridor in the Camarillo General Plan Community Design Element and the proposed wireless facility would not be consistent with the City General Plan. The County should have policies discouraging new macro wireless facilities adjacent to City boundaries, unless they are stealth and consistent with height structures in the surrounding area. The County General Plan should have policies to ensure new wireless facilities are properly sited and designed to avoid land use incompatibility; that it will not be inconsistent with the City General Plan; and that it will not result in an adverse aesthetic impact.

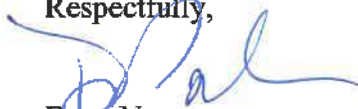
SCAG Data Forecasts

City's Position: The County should use data consistent with the SCAG population forecasts.

Reasoning: Table 5-2 – Forecasted Growth of Incorporated Cities within Ventura County indicates Camarillo's population to be 79,900 in 2040. The City has verified that SCAG has incorporated the data provided to SCAG during the Local Input Process for the 2020 RTP/SCS. The population forecasts that are being used by SCAG are: 75,240 in 2035 and 76,093 in 2045.

Thank you, once again, for the opportunity to comment.

Respectfully,



Dave Norman
City Manager

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 1:46 PM
To: Simmons, Carrie
Subject: FW: TOTALLY FRUSTRATED TRYING TO SUBMIT A COMMENT ONLINE!!!

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



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From: Norene Charnofsky <ncharnofsky@gmail.com>
Sent: Monday, February 24, 2020 12:51 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: TOTALLY FRUSTRATED TRYING TO SUBMIT A COMMENT ONLINE!!!

Dear Ms. Curtis:

I have written a comment about the Climate Action Plan proposed in the General Plan Update and tried mightily to submit it as an online comment. I have repeatedly failed in cracking the code that proves I'm human (I guess that is what it's trying to prove.). I keep coming up "invalid".

HOW FRUSTRATING. Now I have to write the message all over again. I hope you can help me get it to the Board of Supervisors or to whomever it should go to! Thank you so much. **Someone should check that code. I bet a lot of people have just given up!!!**

TO WHOM IT MAY CONCERN;

Regarding the Climate Action Plan in the General Plan Update, I agree with the comments submitted by the organization CFROG.

Especially, I feel that the Climate Action Plan policies must result in measurable, enforceable reductions in pollution, sufficient to meet the climate goals of our State. If the Climate Action Plan is vague, voluntary or not enforceable, future projects might "skate by" and avoid proper environmental review.

The Climate Action Plan and corresponding policies in the General Plan must require specific, measurable, enforceable reductions in greenhouse gas emissions.

Thank you for your attention to this crucially important matter!

Sincerely,
Norene Charnofsky
10180 Norwalk St.
Ventura, CA 93004

Nova Clite
275 N. Kalorama Street, #303A
Ventura, CA 93001

February 24, 2020

RE: Comments on Ventura County draft General Plan, Draft EIR, Draft Climate Action Plan

According to a recent study of data by the Washington Post, with an average temperature increase of 2.6 degrees Celsius since preindustrial times, Ventura ranks as the fastest-warming county in the Lower 48 states. It is critical that Ventura County gets its climate policies right in the General Plan Update which extends to 2040 – if the proposed plan is accepted as is, we'll be getting nothing less than a guarantee for a climate crisis by the next plan update.

My comments are about specific issues related to the oil and gas industry operations in our County that the draft plan and EIR inadequately address, or completely overlook.

Flaring at Oil and Gas Facilities

Flaring is a poorly regulated and controlled process that releases toxic and greenhouse gases into the atmosphere. The draft EIR puts substantial weight on the costs to industry for controlling flaring, including alternative means for transporting the gases. The draft EIR *DOES NOT CONSIDER* the costs and societal impacts of climate change of allowing greenhouse and toxic gas releases from oil and gas facilities. Rather, the draft EIR treats climate change mitigation as a nice wish-list item best ignored, perhaps just too complicated for the authors to consider seriously.

Methane Releases Not Addressed:

The draft EIR does not consider the potential impacts, including the public health and economic impacts, due to climate change forcing by releases of greenhouse gases to the atmosphere. Climate change mitigation is treated as a nice but non-consequential “wish list” item rather than a real and necessary goal for long-term management of oil and gas production in the County. The EIR considers short-term costs to oil producers more important than the future insurmountable costs that would be incurred by all Ventura County residents in the face of uncontrolled warming, drought, and sea level rise (proposed revised policies COS-7.7 and COS-7.8). The Ventura County Climate Action Plan must include immediate, robust action to mitigate climate change. Stringent controls on proposed new oil and gas well development should be imposed to prevent release of greenhouse gases, prevent flaring, require monitoring and mitigation of methane releases. To do less is to place the short-term profits of a non-sustainable extractive industry over the long-term health and well-being of Ventura and State of California residents.

According to NASA's Jet Propulsion Laboratory's methane source finder website (<https://earthdata.nasa.gov/esds/competitive-programs/access/msf>), based on data collected during State of California funded fly-over surveys during 2016-2017, Ventura County is a significant source of methane leaks to the atmosphere. Methane is 85 times more potent at trapping heat in the atmosphere as compared to carbon dioxide, therefore the County's Climate Action Plan must address methane leaks

to protect human health and the environment. Ventura County methane sources include oil and gas production wellfields and related facilities as well as landfills.

The draft Environmental Impact Report mentions methane once and with no consideration of the climate change impact or the need to mitigate this potent greenhouse gas. The State-funded NASA data were available to the consultant writing the EIR; there is absolutely no excuse to ignore these data in the EIR or CAP. All potential methane leak sources within Ventura County must be inventoried and addressed as part of the Climate Action Plan, including permit modifications requiring monitoring, leak mitigation action requirements, strict deadlines for addressing methane leaks, and reporting to authorities and the general public.

Abandoned Oil/Gas Wells and Cost to Taxpayers Not Addressed

Abandoned oil and gas wells are a big problem in the State of California and Ventura County that will cost the taxpayer millions of dollars. In its report released January 23, 2020 (<https://ccst.us/reports/orphan-wells-in-california/>), the California Council on Science and Technology (CCST) announced:

“Responding to a request from the Division of Oil, Gas, and Geothermal Resources, now the California Geologic Energy Management Division (CalGEM), under the California Department of Conservation, the California Council on Science and Technology (CCST) conducted a study entitled “Orphan Wells in California: An Initial Assessment of the State’s Potential Liabilities to Plug and Decommission Orphan Oil and Gas Wells.” Orphan wells are wells that have no known responsible operator or no financially viable operator capable of plugging the well and decommissioning the well’s production facilities. An active or idle well can potentially become an orphan well when deserted by a financially insolvent operator. Responsibilities for plugging and decommissioning these wells may ultimately fall to the State. As the United States’ fourth largest producer of crude oil and fifteenth of natural gas, with approximately 107,000 active and idle wells in the state, the issue of ensuring that resources exist to properly plug and decommission every well is significant for California.

The CCST report uses broad categorizations to screen for wells that may already be orphaned or that are at high risk of becoming orphan wells soon. The analysis finds that 5,540 wells in California may already have no viable operator, and that the potential net liability for the State appears to be about \$500 million, after subtracting available bonds. An additional 69,425 economically marginal and idle wells could become orphaned in the future.”

Abandoned wells pose a significant potential source of greenhouse emissions, toxic and flammable gas leaks, groundwater pollution, and other hazards. The LA Times and Center for Public Integrity published their investigation into this matter on February 6, 2020 (<https://www.latimes.com/projects/california-oil-well-drilling-idle-cleanup/#nt=lik0promoLarge-7030col1-7030col1>).

“The Times/Public Integrity investigation found that bonds posted to the state by California’s seven largest drillers, which account for more than 75% of oil and gas wells, amount to about \$230, on average, for every well they must decommission. Other bonds held by federal and local regulators don’t significantly raise those amounts.

Comments on Ventura County draft General Plan, Draft EIR, Draft Climate Action Plan
February 24, 2020

By contrast, the average per-well cost for capping wells and dismantling associated surface infrastructure in California is between \$40,000 and \$152,000, depending on whether a well is in a rural or urban area, according to a study released in January by the California Council on Science and Technology.”

There is a shocking number of abandoned or idle wells in Ventura County, many near residents (see interactive map in LA Times article). The General Plan Update must include provisions requiring oil and gas producers to fully-fund and properly abandon non-producing wells. Permits should strictly prohibit the transference of low-producing wells from large profitable companies to small limited liability corporations, which subsequently file for bankruptcy. Especially alarming is the reported costs for decommissioning offshore oil facilities which will be in the billions of dollars and have long-term impacts to Ventura County’s natural environment and fisheries if not properly addressed.

The California oil industry is in rapid decline and climate change is upon us – NOW is the time to require the industry take full responsibility for oil and gas production facilities and wells for the full lifespan of the facility.

The County Board needs to pull back the draft Climate Action Plan and enter a more robust and effective planning process to address this existential threat. The Climate Action Plan must be based on sound science, not a weak “environmental impact report” that takes better care of a dying industry than the people of Ventura County.

Thank you,

[signed]

Nova Clite, PG (CA #8482)
nova3773@gmail.com

Simmons, Carrie

From: Barb Miller <b.miller@verizon.net>
Sent: Monday, February 24, 2020 2:48 PM
To: General Plan Update
Subject: General Plan

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Dear Board of Supervisors:

No doubt about it. Climate change is here. According to [a recent study](#) of data by the Washington Post, with an average temperature increase of 2.6 degrees Celsius since preindustrial times, Ventura ranks as the fastest-warming county in the Lower 48 states.

However the good news is that General Plan Update gives us all the opportunity to begin workable and effective plans to mitigate it.

It is imperative that The Climate Action Plan (CAP) include the technical and scientific input needed for a meaningful CAP from teams qualified in solving the problem and able to produce a robust plan capable of meeting the greenhouse Gas (GHG) emission reduction goals.

Much of Climate change is caused by fossil fuel production and consumption. Ventura County needs to meet the goals of the Paris Climate Agreement, eliminating fossil fuel production and protecting its residents from harmful local pollution.

It's not going to be easy, but it's not easy to watch our county burn from climate change induced drought, or flood as a result of global warming. The crisis is upon us but so is the opportunity. I urge you to develop a general plan based on science and faces the crisis from climate change.

Thank you,

Barb Miller
313 Manzanita St.
Camarillo, C 93012

b.miller@verizon.net

February 24, 2020

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, California 93009

Via email: GeneralPlanUpdate@ventura.org

Re: General Plan Update Draft Environmental Impact Report Comments

Dear Ms. Curtis,

The Oxnard Chamber of Commerce advocates for policies that will lead to both economic growth and a stronger community. The Chamber works on behalf of over 500 businesses and organizations that employ more than 30,000 people. We promote the business and economic well-being of Oxnard's diverse community to benefit enterprises, large and small. The Chamber advocates for public policies that continue the creation and retention of jobs in order to promote a healthy Oxnard economy.

We appreciate the opportunity to comment on the General Plan's Draft Environmental Impact Report (DEIR). This collaboration allows the Chamber to continue to support policies that will create both a sustainable energy future and a growing economy for our region.

One of the overarching concerns with the DEIR is the lack of specificity related to how the environment is actually protected by these proposals. This is in part due to the descriptions surrounding many of the suggested policies being very vague and lacking sufficient details. Not only does this make these projects more difficult to explain and comprehend, but it also allows for more room for error when attempting to implement such projects.

Additionally, the analysis surrounding the various projections and forecasts in the DEIR is often flawed, biased, and misleading as part of a larger effort to discredit Ventura oil and gas producers who make significant contributions to the County. In section 6.4.6, Carbon Neutrality, the rejection is appropriate. However, it severely understates the number of individuals employed in the oil and gas industry. Would the DEIR consider adding jobs that would be impacted by a complete shutdown? It should consider service employees, contractors, accountants, food service vendors. Jobs in the oil and gas industry are high paying and cannot simply be replaced with a mass quantity of green energy jobs. A proper comparison of salaries would be important to fully understand the impacts of the proposed policies.

Furthermore, in 2018, the industry provided more than \$56 million to state and local taxes, of which \$21 million that went to supporting Ventura County schools and public safety agencies. The DEIR did not address where this significant portion of the budget would be addressed.

Housing is perhaps the most important issue facing Ventura County. The DEIR does not sufficiently address solutions to this issue and the potential impacts of its proposals. Implementation Program AG-X, Mitigation Measure GHG-1, or Policy COS-6.5 are all items that impact the availability of affordable housing. The General Plan outlines policies that limit the construction and development of new affordable housing. Why is Implementation Haz X not considered a hindrance to building more affordable housing? A suitable alternative would continue to allow natural gas since it is the most affordable and reliable heat source for low-income houses. The DEIR does not take into consideration sky high electricity bills as the alternative to natural gas.

Residents have entrusted the Planning Department with this process. The DEIR has the potential to play a significant role in creating a sustainable economic future, but only if it is carefully tailored to the greater needs of Ventura County. We urge you to revise and recirculate it to the public.

Sincerely,



Nancy Lindholm
President/CEO

Simmons, Carrie

From: Michelle Danna <mdanna@cityofcamarillo.org>
Sent: Monday, February 24, 2020 3:11 PM
To: General Plan Update
Subject: Response to Ventura County 2040 General Plan EIR (SCH No. #2019011026)
Attachments: 2020 02-21-20 VC2020 General Plan EIR Comments.pdf

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Ms. Curtis:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (EIR). We submit the attached comments for your consideration.

Kind regards,
Michelle



Michelle Glueckert D'Anna, Community Relations Officer

City of Camarillo | 601 Carmen Drive | Camarillo, CA 93010

P [\(805\) 388-5370](tel:8053885370) | F (805) 383-5631

mdanna@cityofcamarillo.org | www.cityofcamarillo.org

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City of Camarillo

601 Carmen Drive • P.O. Box 248 • Camarillo, CA 93011-0248

February 21, 2020

Ventura County Resource Management Agency Via E-Mail: GeneralPlanUpdate@ventura.org
Planning Division
Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

RE: Response to Ventura County 2040 General Plan EIR (SCH No. #2019011026)

Dear Ms. Curtis:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (EIR) for the Ventura County 2040 General Plan that has been prepared by the County of Ventura for public review pursuant to the California Environmental Quality Act (CEQA) Guidelines. After reviewing the EIR, we submit the following comments for your consideration.

Agricultural Land and Buffers to Protect Sensitive Receptors

City's Position: The EIR should require buffers around City jurisdictions and require farming techniques that will protect existing sensitive receptors from strong, unpleasant odors associated with hemp farming.

Reasoning: The EIR only addresses agricultural odors from the standpoint of ensuring that new sensitive receptors are not placed in proximity to existing agricultural uses without providing disclosure to new uses and that it does not limit the right to farm. The EIR should address odor impacts associated with types of agricultural crops – and how they are farmed – that may have a substantial odor impact on existing sensitive receptors. The County should ensure that existing sensitive receptors will not be adversely impacted based on the introduction of new types of crops being farmed such as industrial hemp.

Very Low Density Residential (VLDR)

City's Position: To ensure that development in the County adjacent to development in the City is compatible, the VLDR designation should have a maximum density of three units per acre.

Reasoning: The General Plan Land Use Element proposes a land use category of predominantly Very Low Density Residential (VLDR) within the Camarillo Sphere of Influence north of the City limits. Page 2-21 of the County Land Use and Community Character Element indicates this designation would have a maximum density of four dwelling units per acre with a minimum lot size of 10,000 square feet. This is in conflict with Page 2-36, which indicates the VLDR designation has a maximum density of three dwelling units per acre. The City of Camarillo

General Plan Land Use Element designates this area in the Sphere of Influence, north of the City limits, as Rural Density Residential (2.5 dwelling units per acre). This is consistent with the designation of most of the land that is in the City adjacent to the City boundary line, which is designated Rural Density Residential.

Local Infrastructure

City's Position: Policies in the County General Plan should ensure new development on County land within and adjacent to the City Sphere of Influence is compatible with surrounding land uses in the City and that the use will not adversely impact local infrastructure.

Reasoning: The increase in density and 10,000 square foot minimum lot size in the VLDR designation adjacent to City limits within the City's Sphere of Influence needs to be analyzed in the EIR with respect to land use compatibility with adjacent development within the City, and impacts on City utilities and streets, as these areas may be annexed and connected to City infrastructure.

Wireless Communication Facilities

City's Position: The General Plan should encourage cooperation between the County and Cities for the proper placement and design of wireless communication facilities.

Reasoning: The City has provided comments to the County to oppose the placement of an 80-foot tall mono-Eucalyptus along Pleasant Valley Road at Bridgehampton Way, which divides the City and County boundaries. Pleasant Valley Road is a designated scenic corridor in the Camarillo General Plan Community Design Element and the proposed wireless facility would not be consistent with the City General Plan. The County should have policies discouraging new macro wireless facilities adjacent to City boundaries, unless they are stealth and consistent with height structures in the surrounding area. The County General Plan should have policies to ensure new wireless facilities are properly sited and designed to avoid land use incompatibility; that it will not be inconsistent with the City General Plan; and that it will not result in an adverse aesthetic impact.

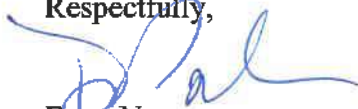
SCAG Data Forecasts

City's Position: The County should use data consistent with the SCAG population forecasts.

Reasoning: Table 5-2 – Forecasted Growth of Incorporated Cities within Ventura County indicates Camarillo's population to be 79,900 in 2040. The City has verified that SCAG has incorporated the data provided to SCAG during the Local Input Process for the 2020 RTP/SCS. The population forecasts that are being used by SCAG are: 75,240 in 2035 and 76,093 in 2045.

Thank you, once again, for the opportunity to comment.

Respectfully,



Dave Norman
City Manager

Simmons, Carrie

From: Newell ML (Michele) at Aera <MLNewell@aeraenergy.com>
Sent: Monday, February 24, 2020 12:30 PM
To: Curtis, Susan; General Plan Update
Cc: Spear WJ (William) at Aera
Subject: Aera comments on General Plan Update
Attachments: Aera Energy LLC - Technical Comments on General Plan 2040 DEIR - 02-24-2020 FINAL.pdf

Importance: High

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Ms. Curtis:

On behalf of Aera Energy LLC, please see the attached letter presenting comments on the General Plan 2040 Draft Environmental Impact Report. Please ensure that these comments are made part of the record of proceedings.

If you have questions, please reach out to Will Spear, Aera's Manager of Operations. His contact information is on the letter and he is also cc'd on this e-mail. Thank you.

Sincerely,

Michele Newell

Public Affairs

Aera Energy LLC

Office - 805-648-8202

FAX – 805-648-8205

MLNEWELL@AERAENERGY.COM

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February 24, 2020

VIA ELECTRONIC MAIL

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Re: Comments on Ventura County 2040 General Plan Draft Environmental Impact Report (State Clearinghouse No. #2019011026)

Dear Ms. Curtis:

On behalf of Aera Energy, LLC (“Aera”), we respectfully submit the enclosed comments on the Draft Environmental Impact Report (“DEIR”) prepared for the County of Ventura’s (“County”) proposed update to its existing General Plan (“GP 2040”).

As you may already know, Aera is the largest onshore oil and gas producer in the County, as well as its ninth largest tax-payer. Aera’s production operations within the County also generate significant downstream revenue for local businesses. In 2018, Aera’s local business expenditures exceeded forty million dollars. Aera’s daily production activities involve nearly one hundred full-time employees and several hundred contractors and vendors, all of whom in turn contribute to the long-term economic health and vitality of the County.

Our review of the DEIR has disclosed several categories of concern. As you are aware, the County must disclose and meaningfully evaluate all foreseeable direct and indirect physical consequences of its proposed action—the adoption of GP 2040. Based on our review of the DEIR, it is clear that the County has failed to fulfill its obligation in this regard. For example:

- In evaluating the consequences of adopting GP 2040, the DEIR relies on incomplete, erroneous or scientifically discredited information;
- In evaluating the consequences of adopting GP 2040, the DEIR ignores readily foreseeable impacts and/or misstates the severity of impacts;
- The DEIR proposes mitigation measures, the implementation of which is infeasible for a variety of known technological, legal and economic reasons;
- The DEIR and the Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020 (hereinafter, “Background

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager
February 24, 2020
Page 2

Report”) are incomplete with respect to their discussions of the environmental setting and regulatory setting; and

- The DEIR and Background Report fail to disclose and consider the fact that several proposed policies, implementing programs and mitigation measures are preempted by state and federal law and/or cannot be carried out without unlawfully impairing vested property rights.

We address these categories of concern in further detail in the Table of DEIR and Background Report Comments enclosed herewith and incorporated herein by reference.

In an effort to improve the technical and textual accuracy and adequacy of the DEIR and Background Report, as well as the GP 2040 Policies and Goals described therein, we have included several comments, proposed revisions and clarification requests in the enclosed Table of DEIR and Background Report Comments. We ask that this letter and all enclosed materials be included in the record of proceedings in this matter and carefully considered by the County.

Finally, it is our expectation that the extensive comments noted herein will be given the same careful consideration as comments submitted by others outside our industry, given the importance of this document to the current and future residents of Ventura County. It is our expectation that complete and thoughtful responses will be prepared for each of the comments enclosed herewith, and the DEIR will be revised and recirculated accordingly. A mere “comment noted or comment received” will not suffice. We look forward to working with County staff to resolve the issues addressed herein and we further look forward to recirculation of a DEIR that meets the applicable legal standards.

As requested, we are providing the name of our point of contact, mailing address and email address as follows:

William J. Spear III, Manager of Operations
3382 N. Ventura Avenue
Ventura, CA 93001
E-mail: WJSpear@aeraenergy.com

Sincerely,



William J. Spear III
Ventura Manager of Operations
Aera Energy, LLC



Table of DEIR and Background Report Comments

| Document & Page No. | Comment/Proposed Revision/Clarification Request |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DEIR: pg. 4.1-16 | Policy NV-1.12. The DEIR does not address the consequences of shifting the “scenic approach” designation to Canada Larga and Ventura Ave. Such a shift is expected to conflict with the long terms use objectives of the North Ventura Ave Area Plan, which are industrial in nature. |
| DEIR: pg. 4.1-23 | The DEIR does not disclose the impacts associated with implementation of Program J itself, nor does it disclose whether Program J implementation would adversely impact the existing built environment, foreseeable future development or introduce conflicting use pattern objectives. Additionally, the DEIR does not disclose which highways would be affected by implementation, which makes it impossible to evaluate the scope of impact. |
| DEIR: pg. 4.1-23 | The DEIR does not acknowledge or address the fact that certain facilities (such as oil and gas drill sites) cannot be sited so they are not readily seen, given known drilling and operational constraints. Such realities should be considered in the DEIR. |
| DEIR: pg. 4.1-25 | In its discussion of Open Space, the DEIR states that development is “to be sited and designed to prevent significant degradation of a scenic view or vista.” Again, the DEIR does not consider the fact that various authorized uses can only be installed in specific locations, which could foreseeably include installation in a location containing a scenic view or vista. |
| DEIR pg. 4.3-5 | Methodology. The DEIR utilizes various definitions of “sensitive receptors” in Section 4.3. The County states that “sensitive receptors are considered to be populations or uses that are more susceptible to the effects of air pollution than the general population”. Therefore, a residence would not be considered a “sensitive receptor”. The DEIR must explain why a typical residence would be excluded from any assessment of toxic air contaminants. |
| DEIR pg. 4.3-6 | Thresholds of Significance. The DEIR concludes that there are no known safe concentrations of toxic air contaminants (TAC). The DEIR should provide a reference to scientific studies that support this statement. Everyone in the County is exposed to TACs due to second-hand smoke, products of combustion, etc. Does this mean no one in the County is “safe”? Why would any additional development be allowed in the County under these conditions? |
| DEIR pg. 4.3-8 | Policy COS 7.8. The County is proposing a policy that requires gases from new discretionary oil and gas wells to be collected and used in order to minimize flaring. Landfills and wastewater treatment plants commonly employ flares to incinerate gas from those facilities. This policy should be expanded to include any flare associated with a discretionary project. If not, the DEIR should be revised to describe how the pollution from a flare at a landfill or wastewater treatment facility differs from a flare at an oil and gas well. |
| DEIR pg. 4.3-15 | Under Impact 4.3-2, the DEIR states that, “Further, as actual construction phasing is not known, it is possible that emissions may exceed or be below modeled emissions shown in Table 4.3-2. Nonetheless, based on conservative modeling, it is likely that emissions would exceed countywide and Ojai Valley thresholds at some point during buildout of the 2040 General Plan.” Yet, the DEIR provides no evidence to support the assumption that emissions would exceed countywide thresholds. Instead, the DEIR discloses that |

| | |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | population growth for the County will be negligible through 2040, which contradicts the assumption that construction associated with such growth would exceed applicable thresholds. |
| DEIR: pg. 4.3-15 | Mitigation Measures AQ-1a and AQ-1b are duplicative. Measure AQ-1b does not provide any mitigation benefits over and above those stated in Measure AQ-1a. |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. This mitigation measure requires “[p]re-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations.” Although this mitigation measure will decrease fugitive dust emissions, no analysis is provided in the DEIR regarding the amount of water that will be needed or where the water will be obtained. The DEIR must analyze all potential impacts. This mitigation measure could have substantial impacts on water use and have the unintended consequence of increasing emissions of GHGs, PM2.5, and NOx by having to utilize water trucks. The DEIR needs to be revised and recirculated to analyze these potential impacts. |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. This mitigation measure requires “treatment” of various portions of future construction sites within the County to minimize fugitive dust. A treatment option listed is “periodic watering”. Again, this mitigation measure could have substantial impacts on water use and have the unintended consequence of increasing emissions of GHGs, PM2.5, and NOx by having to utilize water trucks. The DEIR needs to be revised and recirculated to analyze these potential impacts. |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. The DEIR concludes that after mitigation, “criteria air pollutants and precursors would be minimized through the use of the highest rate [sic] diesel engines available”. The highest rated diesel engines as determined by the U.S. Environmental Protection Agency are Tier 4 engines, which offer substantially reduced NOx emissions. Contrary to the statement in the DEIR, none of the mitigation measures listed in Section 4.3 require the use of Tier 4 engines for nonroad diesel-fired construction equipment. The DEIR must clarify whether Tier 4 engines are in fact required to mitigate NOx emissions at all discretionary construction projects. |
| DEIR pg. 4.3-17 | The NOx emissions listed in Table 4.3-3 can only be achieved using Tier 4 engines on all nonroad diesel-fired construction equipment. For example, NOx emissions are limited to less than 3.0 g/bhp-hr for a Tier 3 nonroad engine rated between 100 hp and 750 hp. It is not uncommon for construction companies to use diesel equipment rated at 250 hp. operating at a 50% load factor over an 8-hour day, this Tier 3 unit would emit around 7 lb/day of NOx, which is substantially higher than the NOx emissions estimated in Table 4.3-3. The DEIR should specify whether Table 4.3-3 is based on using Tier 4 engines exclusively. |
| DEIR pg. 4.3-21 | The DEIR relies on the 2005 Land Use Handbook that recommends 500 ft setbacks on highly used roads greater than 50,000 vehicles per day. This 2005 document is now outdated as CARB released their advisory Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways in 2017. The more recent research concludes, “near-roadway pollution exposure had been previously underestimated and that people living as much as 1,000 feet from freeways were being adversely impacted by poor air quality”. The DEIR needs to be updated to reflect this more current research and recirculated to disclose that research to the public and decision makers. |
| DEIR pg. 4.3-21 | The DEIR proposes modifying policy COS-7.2 to require new discretionary oil wells be located a minimum of 1,500 ft from a residence and 2,500 ft from a school. As stated in |

| | |
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| | <p>previous comments, the DEIR allows schools and residences to be sited within 500 ft of a high-traffic freeway. CARB routinely states that diesel exhaust is responsible for 70% of the cancer risk from airborne toxics in California (for example https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts). If 500 ft is sufficient to protect a person from diesel exhaust that accounts for 70% of the cancer risk, how can anyone justify a larger buffer zone around a discretionary oil well due to presumed toxic air contaminants? The existing zoning standards are adequate to protect the public from new oil wells; the imposition of the proposed new policy is not supported by scientific evidence.</p> |
| DEIR pg. 4.3-22 | <p>Policy HAZ-10.X. When describing setback requirements for transportation corridors, residences are included within the discussion of sensitive receptors. As stated above in a preceding comment, the County should more clearly identify when residences are considered sensitive receptors.</p> |
| DEIR: pg. 4.4-2 | <p>Recommended textual change shown in bold and underline: “Based on an updated review of the CNDDDB, as well as a search of the California Native Plant Society (CNPS), Inventory of Rare and Endangered Plants of California database, the U.S. Fish and Wildlife Service (USFWS), and the Information for Planning and Consultation database, there are 75 additional special-status plant species known or with potential to occur in Ventura County (Table 4.4-1) (CNDDDB 2019; CNPS 2019; USFWS 2019).”</p> |
| DEIR: pg. 4.4-10 | <p>Recommended textual change shown in bold and underline: “the County’s aerial imagery and other relevant biological GIS data layers such as wetlands, waterbodies, vegetation, habitat connectivity and wildlife corridors; and updated CNDDDB, CNPS, Inventory of Rare and Endangered Plants of California database, and USFWS Information for Planning and Consultation database search results (CNDDDB 2019; CNPS 2019; USFWS 2019).”</p> |
| DEIR: pg. 4.4-14 | <p>Recommended textual change shown in bold and underline: “Based on the review and recommendation of a qualified biologist the County shall identify sensitive biological resources as part of any land use designation change to the General Plan Land Use Diagram or zone designation change to the Zoning Ordinance that would intensify the uses in a given area. The County shall prioritize conservation of areas with sensitive biological resources. (MPSP) [Source: New Policy]”</p> <p>It is critical that a qualified biologist ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc.</p> |
| DEIR: pg. 4.4-15 | <p>Recommended textual change shown in bold and underline: “Consideration of Impacts to Wildlife Movement. When considering proposed discretionary development, County decision-makers the County shall consider the development’s potential project-specific and cumulative impacts on the movement of wildlife on the recommendation of and based on evidence supplied by a qualified biologist at a range of spatial scales including local scales (e.g., hundreds of feet) and regional scales (e.g., tens of miles). (RDR) [Source: Wildlife Corridor Policy 3/19/19]”</p> <p>It is critical that a qualified biologist ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc.</p> |
| DEIR: pg. 4.4-16 | <p>Recommended textual change shown in bold and underline: “Policy COS-1.13: Partnerships for Protection of Natural and Biological Resources. The County shall</p> |

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| | continue to work in partnership with agencies, organizations, <u>property owners, business owners</u> and entities responsible for the protection, management, and enhancement of the county's biological resources.” |
| DEIR: pg. 4.4-17 | Recommended textual change shown in bold and underline: “ Program A: Standards for Compact Development. The County shall update the Non-Coastal Zoning Ordinance to include development standards for project design that features compact development adjacent to scenic or sensitive biological resources, <u>as determined by a qualified biologist.</u> [Source: New Program]” It is critical that a qualified biologist to ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc. |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program D: Research Feasibility of Updating Vegetation Maps. In partnership with other natural resource agencies, <u>businesses owners, property owners</u> and organizations, the County shall explore the feasibility of updating vegetation maps for unincorporated areas to facilitate the accurate analysis of potential impacts of development on vegetation communities and other sensitive biological resources.” It is critical that all impacted entities are involved in the partnership of updating vegetation maps. |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program E: Update Non-Coastal Zoning Ordinance Standards for Vegetation Communities. Based on the results of Implementation Program COS-D, (updated vegetation mapping), the County shall develop or modify regulations and development standards to ensure adequate protections for vegetation <u>mapping</u> , if necessary.” |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program F: Evaluate Increase to Standard Setback from Wetland. <u>A County-approved, qualified biologist</u> shall evaluate whether a standard 200-foot setback from wetlands should apply to development in order to improve water quality, reduce the impacts of flooding and provide adequate protection for sensitive biological resources [Source: New Program]” |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program H: County Tree Planting Program. The County shall plant at least one thousand <u>native-species</u> trees annually on County property. [Source: New Program].” |
| DEIR: pg. 4.4-20 | Recommended textual change shown in bold and underline: “The Rural land use designation would allow for low-density and low-intensity land uses such as residential <u>uses es</u> and other rural uses which are maintained in conjunction with agricultural and horticultural uses.” |
| DEIR: pg. 4.4-21 | Recommended textual change shown in bold and underline: “. . . invasive, nonnative species), as a result of future development under the 2040 General Plan. Future development under the 2040 General Plan that could result in impacts on biological resources <u>and therefore may require project-specific environmental review under CEQA.</u> ” |
| DEIR: pg. 4.4-31 | Recommended textual change shown in bold and underline: “Policies COS-1.7, COS-1.8, COS-1.9, COS-1.10, and COS-1.11 include requirements <u>to requirements</u> for environmental review for projects within 300 feet of wetland habitat, implementation of |

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| | 100-foot setbacks from wetland habitat, incorporation of protective design features to avoid impacts to riparian habitat.” |
| DEIR: pg. 4.7-3 | Policy Haz 4.2. The DEIR should disclose the location of known, active faults (this information is readily available) and examine the physical consequences of linear infrastructure around same. Since the location of anticipated development and the type of development in such locations is known and disclosed in the DEIR, the rerouting consequences can be considered, quantified and mitigated now. |
| DEIR: pg. 4.7-3 | Policy Haz 4.6. This policy potentially interferes with state water board regulations regarding storm water run-off pollution prevention. |
| DEIR: pg. 4.7-4 | Policy Haz 4-15. The DEIR assumes, without any credible supporting evidence, that “extraction wells” cause or contribute to land subsidence. It can be shown, by readily available substantial evidence, that rock matrices within the County are not susceptible to land subsidence with proper material balance. |
| DEIR: pg. 4.8-1 | Incomplete Regulatory Setting. There is no mention of the California Global Warming Solutions Act of 2006 (AB32), the Regulation for Mandatory Reporting of Greenhouse Gas Emissions (MRR), or State Cap and Trade program in the DEIR. It is imperative that these regulations be identified and discussed in the DEIR (as opposed to being discussed in passing in the 1000+ page Background Report). |
| DEIR pg 4.8-5 | The California Air Resources Board (CARB) partnered with Scientific Aviation Inc. to measure methane emissions within California. Their report Statewide Airborne Methane Emissions, Measurement Survey dated May 13, 2019 concludes, “landfill sites were found to be the largest methane emitters on a per site basis”. The report describes how an aircraft flew 18 times around the Toland Road Landfill in Ventura County on October 16, 2017 and another 16 laps on May 14, 2018 measuring methane emissions. Using this data, the report concludes that the methane emissions from the Toland Road Landfill averages 2,364.9 kg/hr, which equates to approximately 20,700 MT/yr of methane. The DEIR assigns methane a global warming potential of 28, so the Toland Road Landfill would average 580,000 MT/yr CO ₂ e based on this CARB sponsored study. The DEIR estimated the GHG emissions from the same landfill to be 22,591 MT CO ₂ e from waste generated from unincorporated Ventura County during 2015 and 74,701 MT CO ₂ e from “waste-in-place”; for a total of 97,292 MT/yr CO ₂ e from the Toland Road Landfill. The DEIR should evaluate the various methods of determining GHG emissions from landfills to inform the readers that the GHG emissions from solid waste could be significantly higher than the estimates provided in the DEIR. |
| DEIR pg. 4.8-5 | The GHG emissions from solid waste in the County are further underestimated by ignoring the composting operations within the County. Although a properly operated composting operation can decrease methane emissions from waste, the process is designed to create CO ₂ . The DEIR needs to be updated to account for waste diverted from landfills, which would include composting operations. |
| DEIR pg. 4.8-5 | The 2015 baseline GHG inventory for stationary sources is listed as 275,096 MT CO ₂ e in Table 4.8-1. This estimate is described in Appendix D as representing GHG from oil and gas operations and the source is “CARB Mandatory Reporting Rule – 2016 (Latest available as of 11/6/2017)”. Various entities report their GHG emissions to CARB via their Mandatory Reporting Regulation (MRR). The regulation requires that the reported GHG emissions be verified by a third-party approved by CARB. After verification, CARB publishes a list of all entities reporting under the MRR and posts on their website |

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| | <p>(https://ww2.arb.ca.gov/mrr-data). This CARB published data shows that only three entities in the County reported in 2016 under the Oil and Gas Production industry sector. These three oil and gas production entities in Ventura County reported a total of 21,702 MT CO₂e. To put this in perspective, California State University, Channel Islands reported 84,042 MT CO₂e for the same timeframe. Nevertheless, the DEIR erroneously construes oil and gas operations as a major source of GHG emissions in the County. This misleads the public and the decision makers.</p> |
| DEIR 4.8-5 | <p>In lieu of focusing on GHG data specific to the County, the DEIR apparently applies data for the entire State to estimate GHG emissions from the County with no explanation as to why. Oil production and processing techniques vary throughout the State depending on the geologic formation being produced. CARB has recognized this variability and has developed carbon intensity values for the numerous crude oils needed to fuel California. As stated above, a total of three oil and gas production entities in Ventura County reported a total of 21,702 MT CO₂e. These three facilities produced approximately 6,570,000 bbls of crude oil in 2016 versus the total crude oil production of 7,729,845 bbls within the County. As such, these three facilities accounted for 85% of Ventura County's oil production. Applying the County's technique of estimating GHG emissions based on the amount of crude oil production, the oil and gas production and processing sector represented approximately 25,500 MT CO₂e emissions in 2016, which is significantly less than the GHG baseline estimate listed in the DEIR for stationary sources. The DEIR must explain why it is more accurate to ignore data specific to the County and rely on a generalized dataset.</p> |
| DEIR pg. 4.8-6 | <p>The projected GHG emissions from the "solid waste" sector as presented in Table 4.8-2 are more fully described in Appendix D. The methane emission projections for waste-in-place at in service landfills appear to be questionable. For example, the methane emissions from the Toland Road Landfill decreases from 74,701 MT CO₂e in 2015 to 66,248 MT CO₂e in 2020 for an 11% decrease in GHG emissions. Comparing the Simi Valley Landfill, which emitted 172,093 MT CO₂e in 2015 and dropping to 171,552 MT CO₂e in 2020 for only a 0.3% decrease. Considering that the Toland Road Landfill is scheduled to remain in service longer than any other landfill, please explain why the GHG emissions from the Toland Road Landfill decrease at much faster rate than the Simi Valley Landfill.</p> |
| DEIR pg. 4.8-6 | <p>The GHG projections from stationary sources provided in Table 4.8-2 appear to be based on the County's projections of increasing oil production. In Appendix D, the EIR utilizes a baseline oil production of 8,428,402 bbls/yr in 2015. By 2020, oil production in the County is forecasted to increase to 8,819,019 bbls/yr, accounting for a 4.6% increase in oil production over this five-year span. California provides annual summaries of oil production by county. The most recent report (www.conservation.ca.gov/calgem/pubs_stats/annual_reports/Pages/annual_reports.aspx) published by the Division of Oil, Gas and Geothermal Resources (DOGGR), now the California Geologic Energy Management Division, available is for 2018 and lists oil production in the County as 6,894,516 bbls/yr. Looking back to 2013, the same agency reported oil production from Ventura County as 8,973,076 bbls/yr. As reported by California, oil production in the County dropped 23% over a five-year span from 2013 to 2018, yet the DEIR projects oil production increasing 4.6% during a five-year span from 2015 to 2020. The DEIR needs to clearly describe why the County is projecting a drastic</p> |

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| | <p>turnaround in County oil production starting in 2019 and continuing into the foreseeable future. This assumption directly impacts the GHG projections listed in Table 4.8-2 and is not consistent with historical data or commonly available market projections.</p> |
| DEIR pg. 4.8-6 | <p>In the DEIR analysis of Impact 4.12-3, the County concludes that the 2040 General Plan could hamper or preclude access to oil and gas resources. The DEIR considers this impact to be “potentially significant” even after considering available mitigation measures. Section 4.8 of the DEIR needs to be modified to describe how oil production in the County is projected to steadily increase into the foreseeable future, while the DEIR concludes in Section 4.12 that the General Plan could “preclude expansion of existing oil and gas operations, ... thereby hampering or precluding access to the resource.”</p> |
| DEIR pg. 4.8-6 | <p>The numerous errors made to overstate the GHG emissions from stationary sources are compounded when making projections in Table 4.8-2 to the point that these estimates cannot be taken seriously. First, the 2015 baseline emissions from stationary sources should be closer to 25,500 MT CO₂e using data from the County (as calculated above); not 275,096 MT CO₂e based on data from outside the County. Secondly, oil production is contracting in the County and not expanding as assumed in the DEIR. From 2013 through 2018, crude oil production in the County dropped on average 415,700 bbls/yr. Using this trajectory, crude oil production in the County should be closer to 6,100,000 bbls in 2020, as opposed to 8,819,019 bbls projected in the DEIR. Using the same method as utilized in the DEIR to project GHG emissions, the 2020 GHG emissions from stationary sources should be around 20,000 MT CO₂e (calculated as 25,500 MT CO₂e * 6,100,000 bbls / 7,729,845 bbls)</p> |
| DEIR 4.8-9 | <p>In describing the County’s obligation under CEQA, the DEIR states, “a lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emission resulting from a project.” As the County has chosen to particularly focus on oil and gas production in this DEIR, the County has fallen short of its obligation to describe the impact on GHG emissions due to the 2040 General Plan. There is consensus that climate change is a global issue. GHG reductions are necessary and the County must play a part, but the County cannot by itself thwart the impacts of climate change. To measure global issues such as climate change, the DEIR should not be geographically confined to County. Crude oil is a worldwide commodity openly traded on exchanges. As the DEIR notes in Section 4.12, only 31% of the crude oil consumed in California is produced in State. Shutting down all oil production in the County will not decrease the market for crude oil. To the contrary, California will just import more crude oil from other countries, with the same portion of the refined products, including gasoline and diesel, being transported to the County’s consumers. Therefore, GHG impacts due to oil and gas production in the County is dependent on the amount of carbon associated with the crude oil produced within the County. CARB publishes Carbon Intensity values for the various crude oil sources under their Low Carbon Fuel Standard Regulation. The most recent published data is from 2018 (https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/2018_crude_average_ci_value_final.pdf). In this report, CARB determined, on an annual average, the Carbon Intensity of the crude oil used in California during 2018 was 12.35 gCO₂e/MJ. According to the same report, the crude oil produced from the Ventura Field, the largest oil production field in the County, had a Carbon Intensity of 4.54 gCO₂e/MJ. As such, the crude oil from the Ventura Field results in 63% less GHG</p> |

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| | emissions than the average crude oil used in California. The DEIR should be revised to describe the climate change benefits realized should the 2040 General Plan promote the continued use and expansion of crude oil produced within the County. |
| DEIR 4.8-23 | Policy COS 7.4. The County is proposing a policy to “require discretionary development for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible”. Is it the County’s position that only oil and gas exploration and production development projects contribute GHG emissions? If not, then such a policy should be expanded to include all discretionary development projects. By limiting this policy to oil and gas exploration and production development projects, the County is making an arbitrary determination not based on any facts presented in the record. |
| DEIR 4.8-23 | Policy COS 7.7. The County is proposing a policy to “require new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be trucked.” Numerous development projects can result in increased trucking including warehouses, agricultural processing facilities, military installations, and distribution centers. If the County is concerned with GHG emissions from trucking, why would this proposed policy be limited to new discretionary oil wells? There is no data in the DEIR suggesting that new discretionary oil wells are anticipated to cause a significant increase in GHG emissions due to trucking. The proposed policy should be revised to address discretionary development projects that would actually increase trucking or the County is making an arbitrary determination not based on any facts presented in the record. |
| DEIR 4.8-25 | The County is proposing to evaluate the feasibility of establishing a local tax on oil and gas operations. Later in Section 4.8 the DEIR states that increased taxes on oil and gas facilities may reduce GHG emissions. SB32 designates “the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases.” CARB has established a cap-and-trade program to regulate GHG sources, including oil and gas operations. In fact, the County attempts to rely on a GHG emission inventory from CARB in the DEIR to estimate the GHG emissions from stationary sources in the County. These stationary sources purchase GHG allowances during CARB authorized auctions to mitigate their GHG emissions. CARB then invests the auction proceeds to reduce GHG emissions in California. The County cannot usurp authority designated to a State agency. |
| DEIR 4.8-25 | GP 2040 and the accompanying DEIR does not establish a nexus between county GHG emissions and potentially establishing a local tax on oil and gas operations. As demonstrated in the County’s own documents, the DEIR concludes that stationary sources only contribute 14.5% of the calculated GHG emissions countywide in 2015 (even while overstating stationary source emissions as discussed in other comments). Transportation accounted for 36.5%, solid waste handling was 17.6% and buildings attributed 17%; all greater than the dramatically overstated GHG emissions from stationary sources, while understating GHG emissions from County operated solid waste operations. Why would the County not consider establishing/increasing local taxes on transportation fuels or establishing/increasing gate fees at the County landfills? Both sectors contribute significantly more GHG emissions in the County than oil and gas operations. If taxing an activity reduces GHG emissions from that sector (a highly speculative position), then why would increased taxes/fees from transportation and solid waste disposal not decrease GHG emissions? The County appears to be arbitrarily |

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| | burdening a single industry sector by increasing taxes with no regard to the data presented in the DEIR. |
| DEIR pgs. 4.8-11 through 4.8-37 | Multiple 2040 General Plan Policies and Implementation Programs are listed in this section (GHG). However, a significant number of these Policies and Programs have absolutely nothing to do with Greenhouse Gas Emissions or climate change (examples include Policies CTM-2.1, CTM-2.10, CTM-2.19, PFS-4.4, COS-2.10, WR-4.1, Implementation Program J, Implementation Program M, etc.) |
| DEIR pg. 4.8-23 | Policy COS 7.4. The DEIR does not consider the consequences of, defects of, or infeasibility of this policy. California and the County are net importers of energy—as an importer, the County cannot necessarily control whether imported energy is provided from 100 renewable sources. Thus, this policy is potentially infeasible to implement. |
| DEIR pg. Pg. 4.8-50 | Recommended textual change shown in bold and underline: “... the County cannot meaningfully quantify the effect of all its 2040 General Plan policies and programs on future GHG emissions, and <u>there therefore</u> , it cannot conclude, at this program level of analysis, that future GHG emissions in the county under the 2040 General Plan would be sufficiently reduced to meet the State’s 2030 or post-2030 targets.” |
| DEIR pg. Pg. 4.8-52 | Recommended textual change shown in bold and underline: “However, due to the County’s minimal growth, most of the forecast GHG emissions in 2030 and beyond are caused or influenced by <u>from</u> energy use in existing buildings, vehicle use and travel behavior on existing transportation systems, landfilled waste, and agricultural uses where the County has limited authority to enforce stringent actions resulting in GHG reductions beyond what have been already been included in the 2040 General Plan and the mitigation measures identified in Impact 4.8-2.” |
| DEIR pg. 4.9-7 | Policy HAZ – 5.5. The DEIR fails to define “alternative technology” for management of hazardous waste. It is unclear whether such technology even exists. Furthermore, the DEIR fails to disclose and evaluate the consequences of onsite treatment of hazardous waste. The location of future development is known, as is the location of future development expected to involve onsite use of hazardous materials (e.g. industrial uses). The foreseeable potential impacts of onsite waste treatment at these locations must be evaluated in the DEIR. |
| DEIR pg. 4.9-24 | The term “structure” is undefined for purposes of brush clearing. As a result, a reader of the DEIR cannot determine the scope of physical consequences associated with brush clearing (amount of soil disturbed, amount of vegetation disturbed, impacts to water quality from soil disturbance). Moreover, the DEIR fails to disclose and consider such physical consequences, which may be severe, depending on how the term “structure” is defined. |
| DEIR pg. 4.10-5 | <p>“Policy PFS-6.5. Stormwater Drainage Facilities. The County shall require that stormwater drainage facilities are properly designed, sited, constructed, and maintained to efficiently capture and convey runoff for flood protection and groundwater recharge. (RDR).”</p> <p>The DEIR does not define what constitutes “stormwater drainage facilities” (e.g. drain, basin, treatment plant). As such it is impossible to determine the scope of the policy and any associated physical consequences (such as construction disturbance).</p> |
| DEIR pg. 4.10-5 | “Policy PFS-6.7. Flood Control and Beach Sand Nourishment. The County shall include beach sand nourishment as an important factor in the design and maintenance of |

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| | <p>flood control facilities. (SO) <i>[New Policy]</i>”</p> <p>The DEIR does not define the term “flood control facilities.” Again , this makes it impossible to understand the applicability and scope of this policy.</p> |
| DEIR pg. 4.10-5 | <p>Recommended textual change shown in bold and underline: Policy HAZ-2.1: Principal Floodway Purpose. The County should limit <u>new</u> land use in the regulatory floodway, as identified in the Ventura County Flood Plain Management Ordinance, limited to open space, agriculture, <u>pre-existing structures</u> or passive to low intensity recreational uses, subject to the approval of the County Public Works Agency. The floodway’s principal use should be maintained for safely conveying floodwater away from people and property while protecting ecological functions of the <u>Ventura</u> river. (RDR) <i>[Source: Existing GPP Policy 2.10.2.1, modified].</i>”</p> |
| DEIR pgs. 4.11-7 through 4.11-88 | <p>The DEIR’s definition of and treatment of oil and gas resources as separate from/different from mineral resources is a significant error and is inconsistent with superior state/federal law as well as controlling court decisions. The DEIR’s mischaracterization of oil and gas as not amounting to a mineral resource renders all analyses and impact conclusions relating to same legally defective.</p> |
| DEIR pg. 4.11-8 | <p>Policy LU 6.1. Agricultural Buffers: The DEIR vaguely describes the imposition of buffers for agricultural uses without any measurable values/distances for these buffers. Thus it is impossible to evaluate the consequences such buffers will have on future adjacent land uses. Moreover, the DEIR is inconsistent with respect to the imposition of buffers at measureable distances for certain uses as opposed to others. Certain, measurable buffer distances (such as the proposed setback for oil and gas production) are imposed, while other uses are subject to no such measureable setbacks. This will result in a nonsensical patchwork of development. Reading the DEIR’s land use section as a whole, a future mineral extraction use in a location zoned for extraction would be held to a measurable setback in terms of future expansion, but a residential use with no measureable setback limitations could be installed immediately adjacent to a mineral extraction use.</p> |
| DEIR pg. 4.11-16 | <p>Policy HAZ-2.3. The DEIR fails to disclosure what constitutes an “incompatible land use.” This disclosure cannot be deferred, given that the scope and number of uses deemed “incompatible” will have dramatic physical consequences. If a large number of uses are “incompatible,” then the near-total inability to develop in the flood plain is a direct physical consequence that must be considered now.</p> |
| DEIR pgs. 4.11-1 through 4.11-24 | <p>The GP 2040 zoning map/land use map referenced throughout the DEIR’s land use section is not contained in the land use section. A reader has no way to review this section side-by-side with the maps being referenced.</p> |
| DEIR pg. 4.12-8 | <p>COS Revised Policy 7.2. As discussed above, the setback criteria proposed with adoption of GP 2040 affects selected, targeted industries. While oil and gas operations cannot expand to within 1500 feet of a “sensitive” use, such “sensitive” uses could certainly expand to within mere feet of existing oil and gas operations. This evidences the fact that this setback measure is not being adopted for a legally proper purpose.</p> |
| DEIR pg. 4.12-8 | <p>Policy COS 7.3. This Policy unlawfully impairs vested property rights and disregards well-settle controlling law concerning a mineral owner’s right to recover resources from his or her sub-surface property. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed.</p> |

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| DEIR pg. 4.12-8 | Policy COS 7.7. This policy is preempted by state and federal regulations. The DEIR disregards this. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed. |
| DEIR pg. 4.12-21 | The DEIR concedes that the majority of the COS policies to be adopted as part of the proposed GP 2040 are adopted for the express purpose of phasing out local oil and gas production within the County. The DEIR further concedes that the County will, as a direct result of this proposed phase-out, need to import foreign sources of oil and gas, and further acknowledges that the importation of such sources will have a more severe GHG production impact than reliance on local oil and gas resources. The DEIR then unlawfully punts on consideration of that more severe impact by stating that those impacts will occur "outside the GP 2040 plan area." This abdication of responsibility for GHG analysis is not only hypocritical given GP 2040's objective of combating climate change, but also unlawful. The more severe GHG impacts associated with the importation of foreign oil and gas are known and must be considered now. To omit this evaluation is to deprive the public and decision makers of the ability to fully and fairly understand and consider the impacts of adopting GP 2040. |
| DEIR pg. 4.12-21 | <p>The DEIR's unsupported conclusions regarding horizontal drilling access are demonstrably false. The DEIR states that: "[w]hile the amended policy would put limitations on the placement of new discretionary oil and gas wells, it would not necessarily prohibit access to the oil and natural gas resources being sought. In resource locations near sensitive land uses, directional drilling (including horizontal drilling) techniques could be utilized.</p> <p>Ample evidence, readily available to the DEIR preparers, disproves the foregoing. The aforementioned GP 2040 Policy (COS 7.2) impairs access to and recovery of approximately 80 million bbls of reserves/resources. The structural makeup of the reservoirs containing these reserves does not allow for horizontal drilling due to an average bed thickness of 2ft. A vertically stacked thinly bedding reservoir would require hundreds of wells to produce the 400-1500ft of interval and this is not economically viable in any historical economic condition. Directional drilling would not be possible to replace all of the reserves/resources due to terrain surrounding this area limiting surface locations as well the reservoir structural need to drill north-south directional paths from east or west locations.</p> |
| DEIR pg. 4.12-27 | COS Policy 7.8. This policy is not only preempted, but is also inconsistent with VCAPD rule 54 as it notes that all new well gas would be piped through the same gathering system in existing fields. Outside of running a new pipeline to a different gas processing system, there would be no way to break out the gas from the general field production that goes through the current gathering system through the gas plant, sales point, or flare. |
| DEIR pg. 4.13-14 | The elimination of back up alarms on equipment creates a direct, increased safety risk that is not considered in the DEIR. |
| DEIR pgs. 4.13-1 through 4.13-29 | The DEIR makes numerous, unsupported assumptions regarding the noise generated by oil and gas operations. Oil and gas operations generate noise equivalent to other industrial uses. The DEIR does not, and cannot, provide evidence demonstrating that oil and gas production generates noise above and beyond the noise levels generated by industrial activities, let alone that it produces objectionable noise. |

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, February 24, 2020 1:46 PM
To: Simmons, Carrie
Subject: FW: General Plan DEIR comment extension request
Attachments: CNPS-ExtensionRequest-VCGP2040DEIR-20200224.pdf

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: David Magney <dmagney@cnps.org>
Sent: Monday, February 24, 2020 12:48 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; General Plan Update <GeneralPlanUpdate@ventura.org>
Cc: Nick Jensen <njensen@cnps.org>; Kipp Callahan <kipp.callahan@gmail.com>
Subject: General Plan DEIR comment extension request

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Please find attached the California Native Plant Society's request for an extension of the comment period for the Ventura County General Plan 2040 DEIR.
Thank you for your consideration,

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24 February 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, California 93009-1740
susan.curtis@ventura.org, GeneralPlanUpdate@ventura.org

Re: Request for 90-Day Comment Deadline Extension on the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan

Dear Ms. Curtis:

The California Native Plant Society (CNPS) respectfully requests an extension of the comment period for the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan (State Clearinghouse No. 2019011026).

The current 45 day comment period imposes a deadline of February 27, 2020, and is inadequate to allow full review of:

- (1) the Draft EIR which covers complex issues in its 598 pages plus six appendices, including a 1,034 page background report and
- (2) the Public Review Draft of the General Plan, which is 463 pages and includes four appendices.

It is simply not possible for CNPS to meaningfully review and comment on these documents in such a short timeframe.

CNPS has a long collaborative history with the Ventura County Planning Division and wishes to ensure that that good relationship is maintained, and that the botanical resources of Ventura County are given the appropriate level of attention it deserves.

Due to the sheer volume and complexity of the materials, we believe an additional 90 days is required. Extending the deadline to May 27, 2020 would allow for a more comprehensive review and more useful comments.

Respectfully,

David L. Magney, CNPS Rare Plant Program Manager
Certified California Consulting Botanist No. 0001
Nicholas Jensen, PhD, CNPS Conservation Scientist

Comments on Draft 2040 County General Plan and DEIR

Bruce Smith, AICP
3457 San Pablo St.
Ventura, CA 93003
February 24, 2020

The following are my comments based on my cursory review of the Draft 2040 General Plan and DEIR:

DRAFT 2040 COUNTY GENERAL PLAN:

Land Use and Community Character Element:

LU-3.3 Range of Uses in the Existing Community Designation (pg. 2-12):

This policy states in part: ...*"The County shall allow the appropriate zoning, population densities, and building intensities based on the adopted Area Plan or, where no Area Plan exists, by the applicable Existing Community Map contained in Appendix A.*

Because of the degree of specificity on the Existing Community Maps, the County shall require a General Plan amendment for any zone change within an Existing Community."

(Emphasis added)

It appears that the zoning maps and population density and building intensity tables for Existing Communities of the current General plan have not been included in Appendix A of the Draft General Plan. As such, the requirement for a General Plan amendment for any zone change within an Existing Community would be without legal basis, since there would be nothing to amend in the Draft General Plan. Although it could be argued that a zone change that is inconsistent with Table 2-1 of the proposed General Plan would require a General Plan Amendment, such zone changes could be potentially inconsistent with the Guidelines for Orderly Development (retain land uses and development at pre-established levels) and could cause potential impacts that have not been discussed in the DEIR.

Having no building intensity standards for Existing Communities would be inconsistent with the requirements of existing California General Plan law since these areas would have no building intensity standards (i.e., maximum lot coverage). (See comments regarding Table 2-2).

Table 2-1 General Plan Land Use Designations and Zoning Compatibility Matrix

(pg. 2-19):

As I stated in my May 2019 comments on the Preliminary Draft, the RA (Rural Agriculture) zone is not compatible with the Agricultural designation and should be eliminated therefrom. The RA zone predates the adoption of the Agricultural designation of the current General Plan, is listed under the heading of “Rural Residential Zones” in the Non-Coastal Zoning Ordinance, and allows many land uses that are incompatible with the purpose of the Agricultural designation. For example, the RA zone allows:

- Assembly Uses
- Intermediate and Residential Care of 7 or More Persons
- Cemeteries and Accessory Crematories, Columbaria and Mausoleums
- Cultural Heritage Sites with Historic Repository
- Colleges and universities
- Schools, elementary and secondary (boarding and nonboarding)
- Correctional Institutions
- Libraries
- Mobilehome Parks
- Camps
- Campgrounds
- Golf Courses and/or Driving Ranges
- Recreational Vehicle Parks
- Retreats
- Recyclables Collection Centers

Failure to eliminate the RA Zone from the Agricultural designation will potentially cause significant adverse impacts regarding the loss of agricultural soils/crops, is growth inducing, and is inconsistent with the purpose and intent of the SOAR Ordinance. The Draft EIR does not currently discuss or analyzed these impacts.

If for some reason the County seeks to allow the RA zone under the ECU-Agricultural designation (not subject to SOAR), then the purpose and intent should be clearly stated and any potential impacts discussed in the EIR.

Table 2-2 Land Use Designations and General Development Standards (Pg. 2-21)

As I stated in my May 2019 comments on the Preliminary Draft, this table contains no maximum lot coverage standards for the urban Residential Designations and contains a footnote stating: *“Maximum lot coverage is per appropriate County Zoning classification.”* However, the Non-Coastal Zoning Ordinance states that the Maximum Percentage of Building Coverage standard for each zone is: *“As determined by the General Plan or Applicable Area Plan.”* With the exception of the Saticoy Area Plan, all

Area Plans and Existing Communities not covered by an Area Plan currently contain maximum lot coverage standards. Moreover, this table fails to make reference to LU-10.3 Maximum Lot Coverage Nonconforming Lots (pg. 2-39). Therefore, this table needs to be corrected to make reference to maximum lot coverage standards contained in the Area Plans, Existing Community tables of the current countywide General Plan, and LU-10.3.

In addition, it appears that the zoning maps and population density and building intensity tables of each of the Existing Communities outside of an Area Plan of the current countywide General Plan have been eliminated in the proposed General Plan. This creates an inconsistency with State General Plan law since the Existing Community areas outside of an Area Plan would have no building intensity standards (see preceding comment regarding policy LU-3.3) and makes the Draft General Plan internally inconsistent. Therefore, these zoning maps and population density and building intensity tables should be added to either Appendix A, or an expanded Chapter 11 to address both Area Plans and Existing Communities.

ECU-Rural (ECU-R) (pg. 2-28), first paragraph is confusing and subject to misinterpretation, and should be modified to read:

This designation applies within the boundaries of an Existing Community designated area and provides a physical transition between the outer edges of an Existing Community or Urban Area and nearby adjacent ~~a~~Agricultural and ~~o~~Open ~~s~~Space designated areas and uses. ~~The ECU-Rural designation generally applies to the outer edges of Existing Community and Urban Areas and~~ around sensitive natural resources within the boundaries of an Existing Community designated area. Typical building types include large-lot single family homes in a rural setting.

PARKS & RECREATION LAND USE DESIGNATION (pg. 2-44) – *“This designation provides for parks and recreation facilities and associated recreation uses. The Parks and Recreation (PR) designation is only allowed in areas designated as Existing Community, Area Plans, or Areas of Interest under Policy LU-1.2.”* (Emphasis added)

This land use designation is apparently being created as a place saver for; 1) a future General Plan Amendment to actually designate specific properties with this designation and 2) a future Zoning Ordinance amendment to create a “REC” zone which would governing uses and development/operational standards.

Since the designation 1) only has a general description of allowed land uses (*parks and recreation facilities and associated recreation uses*), 2) the only development standard is *5% maximum lot coverage*, and 3) the designation is *allowed in areas designated Community, Area Plans, or Areas of Interest*, it is unclear how this designation is intended to be used. If the purpose is to change the land use designation of existing or planned parks and recreational facilities from Open Space, Agricultural, Rural, Existing Community and/or Urban designations to Parks and Recreation(PR), then that should be clearly stated. Moreover, the text of the Draft General Plan and Background Report should clearly state the current problem that the PR designation is intended to solve. In addition, it is unclear how the PR designation and the REC zoning would be consistent with the SOAR Ordinance on lands that are currently designated Open Space, Agricultural or Rural.

If the unstated purpose of the PR designation is that it should only be applied to lands that are currently designated Existing Community or Urban, then the reference to Area Plans should be qualified by Unincorporated Urban Center of said Plans. In addition, since the reference to Areas of Interest would mean that most of the south half of the County would be eligible for re-designation from Agricultural, Open Space and Rural to PR, such re-designations would generally require a countywide vote under the provisions of the SOAR Ordinance. Unless this is clearly the Board's intent, the reference to Areas of Interest should be eliminated.

LU-12.1 Parks and Recreational Facilities (pg. 2-46).

"The County shall support the development of parks and recreation facilities within areas designated as Existing Community, Area Plans, or Areas of Interest."

My comments regarding PARKS & RECREATION LAND USE DESIGNATION above, also apply to this policy. In addition, this policy seems overly broad in that a proposed park and recreational facility may have significant adverse, un-mitigatable impacts such as the loss of agricultural soils or the loss of natural resources. This policy, as worded, may prevent the County from denying such a project. The DEIR does not discuss these potential impacts.

Chapter 11 – Area Plans:

The last paragraph on page 11-1 states: *"Table 11-1 shows the compatibility between land use designations in the countywide General Plan and Area Plans. The solid squares indicate a directly compatible relationship between the two designations, and the empty square indicates limited compatibility because of a restriction from the development standards."*

State law requires that a General Plan (including Area Plans) be internally consistent. Table 11-1 is replete with errors and needs to be comprehensively reviewed and corrected, especially in light of the zoning compatibility matrix of each Area Plan and Table 2-1 of the Draft countywide General Plan. As an example, the table incorrectly shows several Urban Residential designations of the Area Plans to be directly compatible with the Rural, ECU-Rural, Agricultural, ECU Agricultural, Open Space, and ECU-Open Space designations of the countywide General Plan. In addition, the table incorrectly shows Rural Residential Designations of the Area Plans to be directly compatible with the Agricultural, ECU-Agricultural, Open Space, and ECU-Open Space designations of the countywide General Plan. Additionally, the Open Space designations of the Area Plans are incorrectly shown as being directly compatible with the Agricultural and ECU-Agricultural designations of the countywide General Plan. Other inconsistencies exist within the table as well.

Neither the text of Chapter 11 nor Table 11-2 explains what is generally or precisely meant by “*...empty square indicates limited compatibility because of a restriction from the development standards.*” Without explanation, this phrase is meaningless.”

Unless Table 2-1 is corrected, the proposed General Plan will be internally inconsistent, exposing the County to a significant legal challenge in court.

Appendices:

Appendix A - Area Plan and Existing Community Land Use Maps:

As I stated in my comments on Table 2-2, Appendix A should make reference to maximum lot coverage standards contained in the Area Plans, and include the maximum lot coverage standards of each of the Existing Communities in the current countywide General Plan.

General Comment regarding maps: Because of the scale of many of the maps, the Existing Community boundaries and land use designations within the Existing Community areas are unreadable and cannot be checked for accuracy. In addition, many of the land use designation labels on the maps are misplaced or unclear as to what parcels they apply to.

Figure A-2: General Plan Land Use Diagram - Lake Sherwood/Hidden Valley Area Plan: This map shows land use designations of some of the Existing Community areas that are within the Thousand Oaks Area Plan, which is confusing.

Figure A-8: General Plan Land Use Diagram - Thousand Oaks Area Plan: This map shows land use designations of some of the Existing Community areas that are within the Lake Sherwood/Hidden Valley Area Plan, which is confusing. In addition, the labels for land use designations within the Camarillo Area of Interest are unnecessary.

Figure A-21: General Plan Land Use Diagram - North Simi Valley: It is unclear what parcels the ECU-Open Space designation applies to since it is in an area that is outside of an Existing Community.

Figure A-23: General Plan Land Use Diagram - Santa Susana: The boundaries of the Existing Community along the north and northwest are confusing.

DRAFT ENVIRONMENTAL IMPACT REPORT:

6.5.2 Alternative 2: Existing Community and Urban Area Designations Alternative (pg. 6-15):

Third paragraph states in part that *“Very Low Density or Low Density Residential lands outside of the Existing Community area designation (boundary) and Urban area designation (boundary) would remain the same as under the 2040 General Plan.”* (emphasis added). This is incorrect since the Very Low Density and Low Density Residential designations are only consistent with the Existing Community and Urban area designations, and are inconsistent with Rural, Agricultural and Open Space designations. Therefore, this sentence should be removed.

Pg. 6-16, Second paragraph, first sentence:

This sentence states: *“In addition, this alternative would employ policy incentives and disincentives to focus future population, housing, and employment growth within the Urban and Existing Community area designations.”* The feasibility and effectiveness of these incentives and disincentives is highly questionable, especially the transfer of development rights from Rural, Agricultural and Open Space designated lands.

Pg. 6-16, Fourth paragraph, first sentence:

“Overall population growth, housing, and employment projections for this alternative would be the same as under the 2040 General Plan.” This sentence is confusing in light of the next sentence of the paragraph that states that this alternative: *“... would result in substantially higher rates of population and job growth within these area designations relative to the 2040 General Plan.”* Therefore, the first sentence should be deleted.

Comparison of Significant Environmental Effects (pg. 6-16)

First sentence states: *“This alternative would focus new development (e.g., more housing units, increase commercial square footage) anticipated to result from population growth that is forecast to occur over the life of the 2040 General Plan within a smaller disturbance footprint.”* (emphasis added). This statement is illogical since the Draft 2040 General Plan’s Very Low Density and Low Density Residential designated areas would be changed to more intense land use designations, which would result in greater disturbances to the existing physical and planned environment.

Many of the other positive effects of this alternative seem to be based on the expectation of transfer of development rights from Rural, Agricultural and Open Space designated lands; however, there is no quantification of impacts and the benefits are based on an incentive that is highly speculative.

6.5.3 Alternative 3: Dense Cores Alternative

This alternative suffers from the same deficiencies as the preceding alternative: there is no quantification of impacts and the benefits are based on an incentive that is highly speculative.

Simmons, Carrie

From: Newell ML (Michele) at Aera <MLNewell@aeraenergy.com>
Sent: Monday, February 24, 2020 6:52 PM
To: Curtis, Susan; General Plan Update
Cc: James MS (Michael) at Aera
Subject: Aera Energy CEQA comments - DEIR
Attachments: Aera Energy LLC - CEQA Comments on General Plan 2040 DEIR - 02-24-2020 Final.pdf

Importance: High

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Ms. Curtis

On behalf of Aera Energy LLC, please see the attached letter presenting additional comments on the General Plan 2040 Draft Environmental Impact Report. Please ensure that these comments are made part of the record of proceedings.

If you have questions, please reach out to Michael James, Aera's Senior Counsel. His contact information is on the letter and he is also cc'd on this e-mail. Thank you.

Michele Newell

Public Affairs Specialist
Aera Energy LLC



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February 24, 2020

VIA ELECTRONIC MAIL

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Re: Comments on Ventura County 2040 General Plan Draft Environmental Report (State Clearinghouse No. #2019011026)

Dear Ms. Curtis:

On behalf of Aera Energy LLC ("Aera"), thank you for the opportunity to review and comment on the Draft Environmental Impact Report prepared for the Ventura County 2040 General Plan Update ("DEIR"). Unfortunately, after reviewing the DEIR, we find it deficient in myriad ways and we respectfully request that the DEIR be significantly revised and recirculated, as required by the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq) ("CEQA") and the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15000 et seq.) ("CEQA Guidelines"). Given the DEIR's failure as an informational disclosure document and its failure to identify and impose all feasible mitigation measures, the DEIR, in its current form, cannot support approval of the County's proposed update to its current General Plan ("2040 General Plan"). The DEIR's legal deficiencies must be cured and it must be recirculated prior to any approval of the 2040 General Plan.

Aera is the largest onshore oil and gas producer in the County of Ventura ("County"), with oil and gas operations covering approximately 4,300 acres located largely in unincorporated areas northwest of the City of Ventura. Aera and its forerunner companies have been actively producing crude oil in the County since the 1920s. Aera is actively involved in the local County community, and is a longtime member of both the Chamber of Commerce and the County Economic Development Association. As a mineral resource owner, mineral resource lessee and a production operator in the County, Aera will be directly and substantially affected by the adequacy of environmental review undertaken in support of the 2040 General Plan as well as implementation of the 2040 General Plan.

I. CEQA STANDARD OF REVIEW

Public agency determinations as to the cause, effect, and significance of environmental impacts must be supported by substantial evidence. (Pub. Resources Code, § 21168.) A public agency abuses its discretion and fails to proceed in the manner required by law when its actions or decisions do not substantially comply with the requirements of CEQA. (Pub. Resources Code, §§ 21168, 21168.5.) An agency's application of an erroneous legal standard in making a CEQA determination also constitutes a failure to proceed as required by law. (*City of San Diego v. Board of Trustees of Cal. State University* (2015) 61 Cal.4th 945, 956.) Whether an environmental impact report ("EIR") fails to include the information necessary for an adequate analysis of an environmental issue is a question of law, and when reviewed by the courts, the courts do not defer to an agency's determinations. (*Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102 ["whether an EIR is sufficient as an informational document is a question of law subject to independent review by the courts"].) Failure to comply with the basic substantive requirements of CEQA is necessarily prejudicial error, requiring the decertification of any EIR and vacation of any project approvals adopted in reliance upon the same. (*North Coast Rivers Alliance v. Kawamura* (2015) 243 Cal.App.4th 647, 671.)

While program EIRs are necessarily broader in scope than project-level EIRs, they must still adhere to CEQA's requirements—significance determinations must still be supported by substantial evidence, program EIRs must still apply the correct legal standard to CEQA determinations, and program EIRs must still include all information necessary for an adequate analysis of environmental effects. (*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 431.) Use of a program EIR does not permit a lead agency to defer an analysis of reasonably foreseeable significant environmental impacts to a later stage of review to avoid addressing those impacts in the program EIR itself. (State CEQA Guidelines, § 15152(b).) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 109.)

Finally, where significant new information is added to an EIR after notice of public review has been given, but before final certification of the EIR, the lead agency must issue a new notice and recirculate the EIR for additional comments and consultation. (Pub. Resources Code, § 21092.1; State CEQA Guidelines, § 15088.5.) Recirculation is required when the addition of new information deprives the public of a meaningful opportunity to comment on substantial adverse project impacts or feasible mitigation measures or alternatives. (State CEQA Guidelines, § 15088.5(a); *Laurel Heights Improvement Association v. Regents of University of California* (1993) 6 Cal.4th 1112, 1130.)

II. GENERAL COMMENTS

A. Improper Piecemealing and Project Segmentation.

As discussed in additional detail below, the DEIR improperly segments its analysis of the County's 2040 General Plan from the pending update of the County Housing Element, and also improperly piecemeals analysis of the 2040 General Plan's implementation actions. CEQA makes it clear that public agencies must analyze the "whole of an action" that may result in a direct or reasonably foreseeable indirect impact. (State CEQA Guidelines, § 15378(a); see also *Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora* (2007) 155 Cal.App.4th 1214.) A public agency may not divide a single project into smaller individual subprojects to avoid responsibility for considering the environmental impact of the project as a whole. (*Orinda Association v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171.)

As the County is aware, the California Department of Housing and Community Development ("HCD") together with the Southern California Association of Governments ("SCAG") will issue a new Regional Housing Needs Allocation ("RHNA") for the County and the cities within the County later this year. The new RHNA will increase the housing needs allocation for the County significantly. As a result, almost every element of the General Plan, as amended, will be out of date once the new numbers are finalized. Land use designations established by the 2040 General Plan will need to be revised nearly immediately to accommodate the RHNA, which will have ripple effects through the DEIR's analyses of air quality emissions, greenhouse gas emissions, and traffic. For example, ignoring the imminent RHNA means that the trip and vehicle miles traveled estimates underpinning the DEIR's traffic analysis do not reflect the additional traffic created by the RHNA, both within the unincorporated areas of the County and within the region at large.

Similarly, beyond the RHNA, the Governor and the State Legislature have advanced significant new legislation intended to increase housing supply opportunities and facilitate the approval of new development by streamlining the housing development process and providing for limited review of developments that otherwise comply with local regulations. This recently adopted legislation and pending legislation will result in an increase in the production of new housing, potentially even beyond the RHNA projections. Thus, the County must table consideration of its 2040 General Plan until the County is in a position to update its Housing Element as part of that undertaking.

In addition to improperly engaging in segmentation in the context of the RHNA, the DEIR ignores the reasonably foreseeable implementation actions that will follow adoption of the 2040 General Plan, including, but not limited to, the adoption of a Zoning Code Update. While the DEIR generically describes the relationship between general

plans and zoning codes, it does not explain how the County's Zoning Code will be updated as a result of adopting the 2040 General Plan. Required zoning code updates resulting from the 2040 General Plan must be analyzed now, as part of this DEIR. Excluding reasonably foreseeable, let alone required, implementation actions from the DEIR's analysis constitutes a prejudicial error. (*McQueen v. Board of Directors* (1988) 202 Cal.App.3d 1136, 1144.)

To address both of these improper segmentation issues, the Project Description for the 2040 General Plan should be revised to be complete, and the DEIR analyses should be revised to assess and disclose the impacts of the entire "whole" of the 2040 General Plan.

B. Impermissibly Vague Project Description.

EIR project descriptions must be accurate, stable, consistent, complete, include all components of a proposed project, and include all foreseeable future activities that are consequences of the project to be approved. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199.) As described more fully below, the DEIR's Project Description does not meet this standard. In fact, it fails to even identify the location and buildout of the 15 new land use designations.¹ Furthermore, policies established by the General Plan are not identified or described with any level of specificity. The complete failure to provide a project description consistent with CEQA's procedural mandates unfortunately undermines each and every analysis contained within the DEIR. As such, the Project Description must be revised to include these details, the DEIR's impact analyses must likewise be revised and the DEIR must be recirculated.

C. Failure To Provide Adequately Detailed Analyses

As more fully discussed below, many sections of the DEIR include surprisingly little technical analysis or analysis of the feasibility of mitigation measures. The DEIR purposefully downplays the effect of numerous proposed mitigation measures and routinely defaults to a finding of significant and unavoidable impacts without any real analysis showing that the County considered all feasible mitigation measures and adequately analyzed whether impacts could be reduced. This, in effect, defers real analysis to future project level EIRs and is inconsistent with the goals of a program level EIR, which is to limit the need for future environmental analysis to the extent reasonably possible. (See CEQA Guidelines, § 15152(b); see also *Vineyard Area Citizens, supra*, 50 Cal.4th at p. 431 [program EIRs must still meet CEQA's mandates].)

¹ We also note that in some places, the DEIR states that the 2040 GPU only establishes 13 new land use designations, as opposed to 15. This inconsistency further underscores the DEIR's failure to provide an accurate and stable project description, consistent with CEQA's mandates. (Compare, e.g., p. 4.11-18 [describing 13 new land use designations] to p. 2-6 [describing 15 new land use designations].)

D. The DEIR Presumes The Imposition of Goals, Policies, Programs and Mitigation Measures That Are Legally Infeasible

Finally, as will also be more fully explored below, several goals and policies discussed in the DEIR and several mitigation measures proposed in the DEIR suffer from a variety of legal infirmities. Several goals and policies, if imposed, impair vested property rights and effectuate a taking under federal and state constitutional standards. Others are preempted by superior state law.

III. DETAILED COMMENTS

Aera's specific and detailed comments on the DEIR's individual chapters and sections are set forth below.

A. Introduction/Executive Summary

Page 1-2: The DEIR makes generic significant and unavoidable impact findings that should not be relied upon to permit future streamlining. The DEIR explains that subsequent development activities will be evaluated to determine whether they will result in "effects not within the scope of the program DEIR, including new or more severe significant impacts than identified in the project DEIR." Where subsequent activities will not result in more severe impacts, "additional environmental documents may not be required." Yet the DEIR vaguely claims myriad significant and unavoidable impacts, which could lead to later claims that projects "fall within the scope" of the program EIR because they too will result in significant impacts. This provides an avenue for the County to avoid project-level analysis, based on general and vague significant and unavoidable impact findings, unsupported by substantial evidence, in the DEIR. If the 2040 General Plan DEIR is truly intended to provide future streamlining for environmental impacts at the project level, the analyses must be expanded, all feasible mitigation measures identified, and determinations revised to rely upon and cite to substantial evidence. Such revisions require recirculation. (State CEQA Guidelines, § 15088.5.)

Page 1-4: The DEIR includes a biased and incomplete description of "areas of known controversy." The DEIR states that the key areas of concern identified during the DEIR Notice Of Preparation ("NOP") process "focused on two primary areas of concern: (1) climate change and greenhouse gases; and (2) the effects of continued oil and gas extraction...." But of the comments included in Appendix A, fewer than half focused on these issues exclusively.

Page 1-5: The DEIR presents an incomplete list of responsible and trustee agencies. The DEIR does not identify the California Geologic Energy Management

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager
February 24, 2020
Page 6

Division of the California Department of Conservation ("CalGEM") or the California Coastal Commission as responsible agencies. As explained above, the imminent Housing Element update should also be provided as part of the 2040 General Plan, and as a result, HCD should also be identified as a responsible agency. Trustee agencies identified in the DEIR should at least include the State Lands Commission, the California Department of Fish and Wildlife, the California Department of Parks and Recreation, and the Ventura County Air Pollution Control District, as each of these agencies has jurisdiction over resources affected by the 2040 General Plan. (State CEQA Guidelines, §§ 15381, 15386.) Identification of proper responsible and trustee agencies affect whether an EIR undergoes the required and proper consultation processes. Failure to do so results in a failure to proceed in the manner required by law. (Pub. Resources Code, §§ 21168, 21168.5.)

Page 2-11: **The DEIR relies on erroneous growth projections.** As discussed above, the growth projections identified in the DEIR will be at odds with the imminently forthcoming RHNA housing numbers assigned to the County and the region (the County will be obligated to produce *more* housing stock). As a result, the assumptions underpinning the DEIR's analyses will be inaccurate almost immediately. This is particularly concerning given that the DEIR's assumptions will be inaccurate because they *underestimate* growth from 2020 through 2040.

Page 2-12: **Setting.** The cross-reference to the Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020 (hereinafter, "Background Report") makes following the setting discussion in the DEIR cumbersome. A summary of the Background Report's setting discussion should be included in the DEIR.

Page 2-14: **Areas of Controversy.** Oil and gas production and the secondary effects of continued operations is highlighted as an area of controversy for many of the sections of the DEIR. However, many of the alleged controversial effects are the result of the County policies proposed to require the use of pipelines in oil and gas operations and not the existing operations themselves.

B. Project Description

Page 3-1: The DEIR's Project Description impermissibly relies on a separate 1,000+ page appendix. EIRs must include an accurate, stable, and consistent description of the Project. (State CEQA Guidelines, § 15124.) Here, the 2040 General Plan provides the planning and development blueprint for the entirety of the County – yet the DEIR's Project Description is a scant 23 pages. For any real details, a reader is forced to parse through the more than 1,000 page Background Report, or the draft 2040 General Plan itself. But an EIR cannot rely on information that is not either included in the document or described in sufficient detail. (*Vineyard Area Citizens, supra*, 40 Cal.4th at p. 442.) An EIR should be written in a way that readers are not forced “to sift through obscure minutiae or appendices” to find important components of the project or analysis. (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 659.) Instead, CEQA contemplates that referenced documents be summarized in the text of the EIR.

Pages 3-4 through 20: The DEIR's Project Description is impermissibly vague. The DEIR's description of the 2040 General Plan is ambiguous and vague on a number of key points. Without these details, it is impossible to adequately assess the 2040 General Plan's potentially significant impacts. For example:

- The Project Description alternatively explains that the 2040 General Plan establishes either 13 or 15 new land use designations. (Compare, e.g., p. 4.11-18 [describing 13 new land use designations] to p. 2-6 [describing 15 new land use designations].)
- It is unclear to what extent these new designations will allow for more development than is presently allowed under the General Plan and Zoning Code. The DEIR states on the one hand that these designations “would be consistent with land use densities/intensities allowed under the current (2018) zoning designations for each affected parcel,” but then, on the other hand, explains that the new designations will permit “relatively higher intensity residential, commercial, mixed use, and industrial land uses.” (Compare pp. 3-4, 3-19, 4-2 [2040 General Plan will permit higher intensity development] with p. 3-4 [2040 General Plan will permit uses consistent with current zoning].)
- The Project Description explains that the 2040 General Plan establishes a wholly new land use designation for parks and recreational facilities, not currently permitted by the Zoning Code, but then also states that this designation will not be assigned to any specific parcel. (See p. 3-5.) Will this use be assigned to a specific parcel in the future? Where? When?

These details are required now in this DEIR to analyze the potential impacts of this new designation.

- The Project Description vaguely references new policies and states, without support, that they are consistent with the County’s existing Guidelines for Orderly Development (“GFOD”) and Save Open Space & Agricultural Resources (“SOAR”) initiative. Yet, no details at all are provided to show that this is so. Without these details, there is no way to confirm whether these new policies will result in inconsistencies with GFOD and SOAR such that significant environmental impacts may occur.
- The Project Description contains only a “brief summary” of each element of the proposed 2040 General Plan. Yet these descriptions are wholly generic. There is no explanation as to what each element will actually do to either permit or prohibit development, or protect or impact resources. There is no hint of the types of goals, policies, and programs that are established in each element, or what is changing from the current General Plan and current Zoning Code. The Project Description should—at the very least—identify policy highlights and ordinances that the 2040 General Plan directs County decision makers to draft and adopt, and describe the type and extent of physical development that will likely be constructed under the 2040 General Plan. These are basic details necessary to assess the environmental impacts of the 2040 General Plan’s adoption.
- The Project Description completely omits any estimate of potential and likely buildout. There is no way for a reader to determine how many acres of development, how many dwelling units, or how many square feet of non-residential development is anticipated under the 2040 General Plan. Instead, the Project Description contains only vague and inconsistent statements about the 2040 General Plan permitting “relatively higher intensity” residential, commercial, mixed use and industrial land use designations. (See p. 3-19.) Yet details such as where this higher intensity development will occur, or how much higher intensity the development will be, is wholly missing. Without this information, how can the impacts of such development be analyzed in the DEIR?
- The Project Description fails to even allude to the County’s Local Coastal Program (“LCP”), or describe whether and how the 2040 General Plan affects the LCP, a key component of the County’s long-range land use planning.

Page 3-5: Preparing a DEIR for the 2040 General Plan while excluding any and all completely foreseeable implementation actions, such as a zoning code

update, results in improper piecemealing and project segmentation. The DEIR generically describes the relationship between general plans and zoning codes, but does not explain whether the County's Zoning Code must be amended as a result of the GPU, and if so, when that will occur. In fact, the DEIR expressly states that at least one new zoning code designation "would be established" "separate from the General Plan Update project as part of the 2040 General Plan's implementation." Required zoning code updates resulting from approval of this Project must be analyzed now, as part of this DEIR. Excluding reasonably foreseeable (let alone required) implementation actions from analysis in this DEIR is a procedural error. (See *McQueen v. Board of Directors*, *supra*, 202 Cal.App.3d at p. 1144.)

Pages 3-6 and 3-11: Preparing a DEIR for the 2040 General Plan before the Housing Element is completed results in improper piecemealing and project segmentation. The DEIR states that draft RHNA numbers will be released in February 2020, which is during the public review period for the DEIR. Accommodation of the County's RHNA could lead to the re-designation of one or several parcels within the County, or the revision/deletion/addition of general plan goals and policies. Therefore, the RHNA's accommodation should be considered as part of this project and analyzed in this DEIR. In fact, on page 3-6, the DEIR even expressly explains that the GPU and the RHNA/Housing Element are two parts of the same land use "alternative" identified through the community outreach for this 2040 General Plan. Separating the 2040 General Plan from the RHNA/Housing Element results in an incomplete and inaccurate project description. Had the 2040 General Plan and the RHNA/Housing Element been analyzed together, the analysis might show that certain aspects of the 2040 General Plan are infeasible, or will have greater impacts than are described in this DEIR. This is precisely why CEQA prohibits dividing a single project into smaller individual subprojects to avoid considering the total environmental impacts of the project as a whole. (State CEQA Guidelines, § 15378(a); see also *Orinda Association v. Board of Supervisors*, *supra*, 182 Cal.App.3d at p. 1171.)

The DEIR's use of an Housing Element "placeholder" does not remedy, and in fact just further highlights the error of, improperly segmenting out the impending Housing Element Update. As explained above, the County is well aware that RHNA allocation increase will significantly affect most of the other elements of the draft 2040 General Plan and its environmental analysis. Including a "placeholder" element results in a meaningless and inaccurate Project Description and further undercuts the DEIR's ability to adequately analyze environmental impacts.

C. Environmental Setting

Pages 4-1 and 4-2: An EIR must describe existing environmental conditions in the vicinity of the proposed project. (State CEQA Guidelines, § 15125.) The DEIR's description of the environmental setting and baseline is inadequate on myriad grounds.

First, it impermissibly buries all description of the existing environmental setting in a 1,000+ page appendix, in direct contravention of CEQA's mandates. CEQA requires that the data in an EIR be presented in a manner that adequately informs the public and decision makers, and forcing readers "to sift through obscure minutiae and appendices" to find out what environmental baseline the DEIR assumes and applies is a failure to proceed in the manner required by law. (*San Joaquin Raptor Rescue Center v. County of Merced, supra*, 149 Cal.App.4th 645, 659.) Instead of distilling the information underpinning the entirety of the DEIR's technical analyses, the DEIR refers its readers "to the Background Report for all other setting information." Yet the Background Report is more than 1,000 pages long, not including its own appendices, and is not organized in a way that coincides with the chapters of the DEIR. Even where an EIR relies on underlying data and analysis in an EIR appendix, the body of the EIR itself must at least include a salient summary of the key issues. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

Second, the DEIR makes vague reference to an assumed growth rate, but provides no substantive evidence explaining why the assumed growth rate is the most appropriate and reasonable assumption to underpin the DEIR's analyses. (See p. 4-1.) Instead, the DEIR states only that the growth rate was chosen by direction of the County Board of Supervisors – but this does not constitute substantial evidence. (See State CEQA Guidelines, § 15384 [substantial evidence includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts].)

Similarly, the DEIR states that the DEIR's analyses are "based on buildout of the plan area" but nowhere in the DEIR's Project Description does it actually identify what buildout would be. Not only is the amount of buildout unclear, but the timing of buildout is unclear as well. The DEIR goes on to say that this unspecified buildout "is not anticipated to occur within the planning horizon" but then also does not explain what is anticipated to occur within the planning horizon. By completely failing to identify the key assumptions underpinning the environmental analysis, it is impossible for a reader to assess whether the DEIR's conclusions are sound. The DEIR thus fails as an informational document.

D. Aesthetics

Pages 4.1-1, 4.1-3 and 4.1-10: The analysis omits relevant aspects of the regulatory setting. The aesthetics analysis completely omits any reference to federal and state regulations that affect aesthetic resources. Similarly, the discussion of the local regulatory setting focuses only on lighting regulations. While some of the missing information is included in the Background Report, a reader cannot be expected to hunt for information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.) At the very least, the regulatory setting must be

expanded to identify and describe the National Scenic Byways Program, the California Scenic Highway Program, state historic preservation programs, the California Building Code, local development standards, regulation of development on hillsides, regulation of historic buildings, guidelines and standards relating to architecture, and regulation of signs beyond illumination. Further, even including the buried regulatory discussion in the Background Report, there is no discussion of historic preservation policies and programs, architectural design, grading ordinances, tree protection, or other regulatory schemes that have significant relation to aesthetics. Omitting any discussion of these types of regulations, failing to analyze whether the proposed project is consistent with them, and failing to disclose whether any inconsistencies will result in potentially significant impacts, results in an inadequate aesthetics analysis.

Page 4.1-12: The DEIR fails to include any details of the existing environmental setting, and even the Background Report appended to the DEIR fails to adequately describe existing conditions. The DEIR states that the Background Report appended to the DEIR “describes the environmental setting for the purpose of this evaluation.” For all the reasons articulated above, the DEIR must summarize the key aspects of the environmental setting in the body of the EIR. However, even the existing conditions description in the Background Report is inadequate. There is no discussion of the existing visual character – only general references to scenic resources. This may be because the DEIR does not actually include any analysis of impacts to existing visual character, as discussed below, however this is salient information relating to existing conditions and baseline. Visual character includes not only natural resources, but urban and recreational features, including roads, utilities, structures, oil and gas facilities, and other results of human activities. Instead, the Background Report reads only as a generic list of existing visual resources, with no discussion of visual quality, view shed, aesthetic values, or viewer sensitivity – all key to understanding the potential for aesthetic impacts resulting from the 2040 General Plan.

More specifically, there is no discussion of existing oil and gas facilities, or their relationship to scenic resources. DEIR page 4.1-1 expressly identifies aesthetics relating to oil and gas facilities as the subject of comments received during the NOP period, yet there is no discussion of those issues, or the existing setting relevant to those issues, in the DEIR or Background Report.

Page 4.1-13: The DEIR does not include any analysis of impacts to existing visual character. The DEIR identifies four thresholds for determining impacts to aesthetic resources, but these thresholds do not align with, and omit, thresholds included in the most recent version of the Appendix G checklist, which the County seems to have never adopted, as required by State CEQA Guidelines § 15022, subdivision (c). Appendix G threshold I(c) requires analysis of whether the project would, “in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings?” Yet the DEIR wholly fails to address any

changes in existing visual character, failing to disclose any such impacts (or lack thereof) to the public or decision makers.

E. Agriculture and Forestry Resources

Page 4.2-4: The Thresholds are over inclusive. The threshold includes Farmland of Local Importance which is not among the types of farmland specified in Appendix G of the CEQA Guidelines as requiring mitigation. The DEIR provides no analysis or justification for exceeding the criteria in Appendix G. The addition of this category will require the creation of additional conservation easements as “mitigation” for the loss of this category of farmland that may or may not be available as mitigation and may impact the ability of the County to meet other objectives such as those that may be included in the update of the County’s Housing Element. How much of this category of farmland is located outside of the SOAR’s growth limits? If it is significant, requiring the establishment of conservation easements over this land or requiring mitigation for its conversion may well adversely impact the ability of the County to meet its housing obligations. There is no analysis of the feasibility of this measure as required by CEQA. Accordingly, this proposed measure is illusory as there is no substantial evidence to support its feasibility. *See Cleveland Nat’l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

Page 4.2-16: Mitigation Measure AG-1 is vague and unenforceable. There is no analysis of how discretionary development can be conditioned to avoid direct loss of Important Farmland. *See Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 262, 261. This measure too is illusory and not supported by substantial evidence as required by CEQA.

Page 4.2-16: Mitigation Measure AG-2 lacks substantial evidence of its feasibility. This mitigation measure provides for the use of off-site agricultural conservation easements at a 2-1 ratio as mitigation for the loss of the categorized agricultural land. The use of off-site conservation easements over existing agricultural land has been broadly criticized since it does not result in any replacement of lost farmland. The easements would only apply to other existing agricultural lands. There is no analysis of the feasibility of this measure, which is doubtful since the owners of the other agricultural lands will have to agree to the imposition of the conservation easements and there is no assurance that there will be sufficient willing owners of agricultural lands to agree to these restrictions at the level required. There is no evaluation of the existence of other agricultural lands that might be available for the acquisition of conservation easements. Accordingly, this proposed measure is illusory as there is no substantial evidence to support its feasibility. *See Cleveland Nat’l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

F. Air Quality

Page 4.3-3: It is unclear how much construction is anticipated as a result of the 2040 General Plan buildout. The DEIR states that “because construction associated with buildout under the 2040 General Plan would generate temporary criteria pollutant emissions, primarily due to the operation of construction equipment... emissions have been estimated in this analysis, and are based on the anticipated amount of development under buildout the [sic] 2040 General Plan.” But, as discussed above regarding the Project Description, there is no statement of what buildout would actually be. How many new dwelling units, how many square feet of new non-residential uses, and where will these be located? These are all details fundamental to the DEIR’s analysis of air quality impacts and their omission makes it impossible for a reader to assess the DEIR’s impact determinations.

Page 4.3-3: There is no substantial evidence supporting the County’s underlying growth assumptions. The DEIR states that “[a]lthough the exact timing of construction activity over this period is unknown, for the purposes of modeling, it was assumed that development would occur gradually in equal annual increments over this time period.” However, no explanation is provided for why this is the most reasonable assumption upon which to pin the analysis. (See State CEQA Guidelines, § 15384(b) [substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts].) Growth typically does not occur gradually, in equal measure over a ten year period. There are likely to be high and low years of construction and development. By assuming a straight linear projection, the analysis ignores true construction impacts (i.e. maximum daily emissions) associated with development in “boom” years. As a result, construction generated air quality impacts are likely undercounted.

Page 4.3-4: The buildout numbers underlying the air quality analysis are nowhere to be found in the DEIR’s Project Description. The DEIR’s air quality analysis assumes construction of 1,125 single family dwelling units, 156 multifamily dwelling units, and specific square footage numbers for several other non-residential land uses. Yet these buildout numbers are not discussed anywhere within the DEIR’s Project Description and will soon be out of date when the new RHNA allocations are adopted. A reader cannot be expected to search deep within the DEIR’s analyses to determine the basic facts of what is proposed— i.e., how many dwelling units and how much square footage of development is likely to occur under the 2040 General Plan. Because there are no additional details provided as to where these buildout numbers come from, it is also unclear whether these numbers represent the maximums allowable under the 2040 General Plan, or whether the County is assuming some smaller subset is what is actually

likely to be constructed.² Because a reader cannot determine what exactly is being analyzed and why, the significance determinations of the air quality analysis are rendered meaningless. (See *Napa Citizens for Honest Govt. v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 359 [at the very least, an EIR must contain an explanation of the reasoning supporting the EIR's impact findings, and the supporting evidence].)

Page 4.3-8: The air quality impacts analysis improperly relies on implementation of proposed General Plan policies that are infeasible or preempted. The air quality analysis relies upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include, but may not be limited to, proposed policies COS-7.1, 7.3, 7.4, 7.7, and 7.8. If an impact's significance determination is based upon the application of policies or programs that will not actually come to pass, the impact analysis is inherently flawed. (See, e.g., *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [mitigation measures must actually be enforceable].)

Pages 4.3-13 and 4.3-15: The DEIR fails to identify or apply any significance threshold for PM10, a criteria pollutant for which the air basin is in nonattainment status. The DEIR states that construction emissions could contribute to the County's existing nonattainment condition for PM10, and as a result, could cause adverse health impacts due to increased exposure to PM10. Yet, pursuant to DEIR Table 4.3-2, the County does not identify any significance threshold for PM10, as required by CEQA. There is no way for a reader to know whether the 20.4 lb/day estimated construction emissions of PM10 are significant when compared to an objective bright-line threshold. Even though the DEIR goes on to assume that the 20.4 lb/day of PM10 emissions are potentially significant, without a threshold, a reader has no way to understand how significant the impact could be, or the order of magnitude of the emissions. (See *Laurel Heights Improvement Association v. Regents of University of California* (1988) 47 Cal.3d 376, 404 [a bare conclusion without an explanation of its factual and analytical basis is not a sufficient analysis of an environmental impact]; see also *San Francisco Baykeeper, Inc. v. State Lands Commission* (2015) 242 Cal.App.4th 202, 227 [CEQA requires agencies to make a policy judgment about how to distinguish adverse impacts deemed significant from those deemed not significant].)

² The text on page 4.3-4 also explains that some information "specific to the 2040 General Plan" was available and thus inputted into the air quality emissions modeling, and then also states that where specific information was not available, CalEEMod defaults were used. The text reads: "See Table 4.3-1, below, for a full list of land use assumptions used for the modeling." Yet the only "assumptions" presented in Table 4.3-1 are the assumed dwelling units and square footages – which, as described above, are presented without any context. None of these seem to be defaults or information "specific to the 2040 General Plan." Again, this is just another example of how the DEIR is vague and inconsistent, and it is impossible for a reader to decipher what assumptions underpin the impacts analysis and why.

Further, the issue of the missing PM10 significance threshold is compounded by the DEIR's proposed Mitigation Measure AQ-1b, which adds Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices, to the 2040 General Plan. This program requires "applicants for future discretionary development projects that would generate construction-related emissions that exceed applicable thresholds" include certain best management practices ("BMPs"). However, if there is no applicable threshold for PM10, how will the County, or applicants, determine when BMPs to reduce PM10 are required? The same comment applies to Mitigation Measure AQ-2a, which adds new policy HAZ-X, which states, "The County shall ensure that discretionary development which will generate fugitive dust emissions during construction activities will, to the extent feasible, incorporate BMPs that reduce emissions to be less than applicable thresholds." This is nonsensical, considering that the DEIR expressly states that there is no applicable threshold for PM10 or PM2.5 (i.e. fugitive dust). Again, the same comment also applies to Mitigation Measure AQ-2b, which adds new implementation program HAZ-X, which also establishes certain criteria to be applied when fugitive dust emissions "exceed the applicable thresholds." Without any identified threshold, these mitigation measures are wholly ineffective. (See *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1168 [mitigation measures' efficacy must be apparent and supported by substantial evidence].)

Page 4.3-15: Several of the air quality impact mitigation measures are limited to only "the extent feasible" which severely limits their effectiveness. All mitigation measures identified under DEIR Impact 4.3-2 are only applicable "to the extent feasible." Including this caveat makes each measure ineffective. Mitigation measures must be concrete and enforceable, and the addition of "to the extent feasible" language makes these commitments meaningless. (*Federation of Hillside & Canyon Associations v. City of L.A.* (2000) 83 Cal.App.4th 1252, 1260 [mitigation measures must not be remote or speculative].)

Page 4.3-15: Implementation Program HAZ-X relating to fugitive dust is duplicative. We request that the first two bullet points be revised to reduce duplication.

Page 4.3-17: The DEIR fails to apply a threshold to the mitigated daily emissions associated with PM 10 and PM2.5, fails to apply all feasible mitigation measures, and adds so many caveats to its final significance determination that the DEIR's air quality conclusions are essentially meaningless. The DEIR concludes that, with the application of the proposed mitigation measures, PM10 and PM2.5 emissions will be reduced, but still fails to apply any type of threshold to the reduced amounts. Similarly, the mitigation measures' reduction of ROG and NOx emissions do not reduce emissions below the significance threshold for Ojai Valley. Yet there is no explanation as to why there are no additional feasible mitigation measures that can be added to reduce these impacts to less than significant. An EIR cannot simply label an impact significant without this discussion and analysis; to do so would "allow[] the lead agency to travel the

legally impermissible easy road to CEQA compliance.” (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1370 [EIR must provide a description and full analysis of a project’s significant impacts].)

Page 4.3-17: The DEIR fails to include any meaningful analysis of health impacts associated with project exceedances of operational thresholds. CEQA mandates that an EIR discuss the potential health effects of significant air pollutant emissions. Here, the entirety of the discussion correlating the operational emissions to health impacts reads: “[T]he 2040 General Plan’s contribution to operational criteria air pollutants and precursors could result in greater acute or chronic health impacts compared to existing conditions.” This falls woefully short of what is required, which is a meaningful connection between the levels of pollutants that would be emitted by the completed Project, and adverse human health effects. (*Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 517-522.)

Page 4.3-18: No operational threshold is identified for CO, PM10 or PM2.5. The DEIR states that the 2040 General Plan is anticipated to result in 502 lb/day of CO, 320.9 lb/day of PM10, and 87.5 lb/day of PM2.5 emissions. Yet no significance threshold is provided for any of these three pollutants. Without a threshold, a reader has no context for determining whether these impacts are significant, and how significant they are. While the text goes on to assume that these are significant amounts of three pollutants, it is not enough to declare a project significant without providing any context showing how significant (how many orders of magnitude) the impact will actually be. (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners, supra*, 91 Cal.App.4th at p. 1370.)

Page 4.3-18: Analysis of operational emissions relies on several policies that are likely infeasible because they violate private property rights and/or are preempted by state and local law. The DEIR explains that it is relying on several new policies applicable to oil and gas facilities, to reduce operational emissions. However, there is no explanation as to why the County believes these new policies are feasible. The policies, among other things, require new oil wells to use pipelines to convey oil and produced water, and prohibits venting or flaring except in cases of emergency or for testing purposes. These policies are likely not feasible and preempted by state and federal law.

Page 4.3-19: Analysis of operational impacts concludes that operational emissions are “unknown” without any explanation as to why that is so. The DEIR concludes that while some policies in the 2040 General Plan would reduce criteria air pollutant and precursor emissions, “it is unknown if emission levels from future development would be reduced below the VCAPCD countywide and Ojai Valley thresholds.” However, Table 4.3-4 identifies ROG and NOx emissions levels that exceed the VCAPD thresholds by substantial amounts. It seems clear that future development

will exceed these thresholds prior to the application of mitigation measures, and therefore, the DEIR should so state. (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners*, *supra*, 91 Cal.App.4th at p. 1370.)

Page 4.3-19: The DEIR fails to identify feasible mitigation measures, and defers mitigation to later individual projects. CEQA requires a good faith reasoned explanation when an agency determines that there are no feasible mitigation measures to apply to a potentially significant impact. Here, the DEIR states, without explanation, that no feasible mitigation is available to reduce operational air quality impacts.

Page 4.3-21: Nonsensical “one-way” setback requirements. The DEIR identifies new policies that prohibit siting new oil and gas facilities within 1,500 feet of any residential unit and 2,500 feet from any school (up from 500 feet and 800 feet, respectively, in the current Code), and claims that this new setback requirement reduces the potential of exposing sensitive receptors to toxic air contaminant emissions. However there is no mention of prohibiting additional residential units within these new setback areas. There is no explanation as to why the former reduces potential impacts, but the latter would not. Further, there is no description of which air contaminants sensitive receptors will now be less exposed to, or what the significance is of this reduction. Mitigation measures must have a reasonable relationship or nexus between a project’s impacts and the measure or condition that is imposed. (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825; *Dolan v. Tigard* (1994) 512 U.S. 374.)

G. Biological Resources

Page 4.4-1: The analysis omits relevant aspects of the regulatory setting. As with the other environmental analyses sections, the salient aspects of the regulatory setting should not be buried in an EIR appendix, but clearly presented in the body of the DEIR. (See *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

Pages 4.4-2 through 10: The DEIR’s presentation of affected sensitive species is impermissibly unclear. There is no single presentation of all sensitive species affected by the 2040 General Plan. Instead, a reader must piece together sensitive species lists presented in both the Background Report appended to the EIR, and lists presented in the DEIR chapter. It is unclear why there is no single list of sensitive species available to a reader and obscures the environmental baseline upon which impacts to biological resources is based.

Page 4.4-10: The DEIR impermissibly punts analysis of wildlife nursery sites to future analysis. The DEIR acknowledges that CEQA requires analysis of impacts relating to native wildlife nursery sites, but then goes on to state that these sites “are not mapped for the plan area and would need to be identified and evaluated at a project-

specific level.” The DEIR cannot just decide to ignore and defer identification of existing conditions or analysis of a particular impact. CEQA requires that the County put forward its best good faith effort at analyzing impacts, or else explain, with substantial evidence, why such an impact cannot be analyzed or is too speculative to analyze. (See *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Ca.3d 376, 410.) The DEIR fails to do either.

Page 4.4-14: The DEIR lacks any analysis or significance determination for impacts relating to Habitat Conservation Plans (“HCPs”) or Natural Communities Conservation Plans (“NCCPs”). The DEIR states that there are no HCPs or NCCPs within the plan area – yet never makes an affirmative significance determination. A reader should not be forced to assume the County is making a “no impact” or “less than significant impact” finding, where the DEIR does not so state.

Page 4.4-22: The DEIR impermissibly punts biological resource mitigation for impacts to special status species and habitats to the resource agencies. The DEIR claims that project-specific mitigation measures would reduce impacts to special-status species to less than significant because they would be “developed consistent with applicable state and federal requirements” and follow standards established by the California Department of Fish and Wildlife (“CDFW”). But CEQA case law specifically prohibits deferring mitigation to resource agencies. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal.App.4th 645, 671 [an EIR cannot avoid studying impacts to biological resources by proposing a plan to mitigate presumed impacts based on future studies].)

Page 4.4-24: Mitigation measures do not actually address several of the identified types of impacts. The impact analysis for Impact 4.4-1 identifies several potential types of impacts to sensitive species, including spread of invasive non-native species that out-compete native species or alter habitats. Yet no mitigation is provided to address this identified impact. No aspect of Mitigation Measure BIO-1 addresses nonnative and invasive species or the harms caused by the same. Mitigation measures must address the actual impact identified, or else an explanation must be given as to why mitigation is not feasible. (State CEQA Guidelines, §§ 15121(a), 15126.4(a).) This comment also applies to the other impacts identified in this chapter, as they all rely upon this single mitigation measure.

Page 4.4-26: The DEIR impermissibly punts biological resource mitigation for impacts to riparian habitats to the resource agencies. The DEIR relies on future project-level review by CDFW and the California Coastal Commission to protect riparian habitat and ESHA. The DEIR reads, “Specifically, CDFW or the California Coastal Commission would not permit a project that would degrade these habitats without compensatory mitigation to fully mitigate for the significant impact.” But CEQA case

law expressly prohibits relying on future review by resource agencies to reduce impacts. Under this line of reasoning, no project would ever have significant impacts on riparian habitats or ESHA, making CEQA's directive to the lead agency (here, the County) to analyze and mitigate biological impacts completely meaningless. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal.App.4th 645, 671 [mitigation deferral to future resource agency permitting review not appropriate where result expected is undefined].)

Page 4.4-27: The DEIR implies that if the General Plan included policies that specifically guided focused surveys for sensitive habitat, specific avoidance measures, or compensation requirements, this would further reduce impacts – but then fails to add a mitigation measure actually requiring that the General Plan do this. The DEIR concludes that impacts to riparian habitats and environmental sensitive habitat areas (“ESHA”) are significant and unavoidable, but then also implies that if the 2040 General Plan added these certain performance standards, this would reduce impacts. Yet the 2040 General Plan does not go on to do so, and no explanation is given as to why these performance measures cannot be included. Even where an impact is significant and unavoidable, an agency still has the obligation to assign all reasonable and feasible mitigation measures that would reduce those impacts, even if they would not be reduced to a level of less than significant. (State CEQA Guidelines, § 15126.2(b).) This comment also applies to the other biological impacts identified in this section of the DEIR.

H. Cultural, Tribal Cultural, and Paleontological Resources

Page 4.5-16: The DEIR concludes that the impact of architectural resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding is based on speculation that the mitigation measures may not be sufficient in every case. CEQA Guidelines Section 15091(a) provides that findings must be supported by substantial evidence. As previously noted, an EIR cannot simply label an impact significant without this discussion and analysis; to do so would “allow the lead agency to travel the legally impermissible easy road to CEQA compliance.” (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1370 [EIR must provide a description and full analysis of a project's significant impacts].) As noted in the general comments, this lack of analysis in effect simply defers all mitigation to project level environmental analysis. This is not the proper function of a program level EIR.

Page 4.5-21: The DEIR concludes that the impact on historical resources will be significant and unavoidable despite the inclusion of standard mitigation

measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding is also based on speculation that the mitigation measures may not be sufficient in every case.

Page 4.5-24: As with the impacts in architectural and historic resources, the DEIR concludes that the impact on tribal cultural resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding suffers from the same lack of real analysis as with regard to Impacts 4.5-1 and -2 and is based on speculation that the mitigation measures may not be sufficient in every case.

Page 4.5-26: As with all of the other impacts in this section, the DEIR concludes that the impact on paleontological resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding suffers from the same lack of real analysis as with regard to all of the other impacts in this section and is based on speculation that the mitigation measures may not be sufficient in every case.

I. Energy

Page 4.6-4: The DEIR's discussion of environmental setting/environmental baseline is incomplete at best, non-existent at worst. The less than five page Background Report, combined with the DEIR's discussion of climate change does not amount to a clear, informative picture of what is going on within the County in terms of energy consumption, energy mix and energy efficiency, today, under the current General Plan. Such a discussion is critical to a legally adequate discussion of the environmental setting. (See *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713.) As such, it is impossible to judge whether implementation of the 2040 General Plan will have a beneficial, adverse or neutral impact on energy resources, and the DEIR's energy analysis is wholly deficient.

Pages 4.6-18 through 22: The DEIR fails to apply the two required energy significance thresholds identified in Appendix G of the State CEQA Guidelines. The DEIR states that it will qualitatively evaluate two distinct significance thresholds in its energy impacts analysis: (1) whether the project will result in inefficient/wasteful energy consumption, and (2) whether the project will conflict with state or local plans. However, the DEIR then conflates these thresholds into a single analysis concerning only wasteful consumption. No analysis is provided relating to whether the 2040 General Plan conflicts with state or local plans relating to energy. This analysis must be provided in a recirculated DEIR for public review and comment.

Page 4.6-19: The DEIR fails to adequately identify policies that will reduce impacts relating to wasteful and inefficient energy consumption. The DEIR lists myriad policies that are ostensibly relevant to energy conservation (see DEIR pp. 4.6-7 to 7.6-18); however, the DEIR only identifies two proposed policies (COS-8.7 and COS-U) for ensuring that there is no wasteful or inefficient energy consumption across the entire 2040 General Plan area for the next 20 years.

Page 4.6-20: The DEIR's conclusions regarding energy consumption are unfounded. The DEIR states that it cannot quantify the effectiveness of energy conservation features for future development, but nevertheless concludes, without evidence, that future development under the 2040 General Plan will not unnecessarily expend energy. The analysis should be revised to include substantial evidence supporting this conclusion, and recirculated.

Pages 4.6-21 through 22: The DEIR's conclusions regarding consistency with statewide plans and policies is unfounded. The DEIR's conclusion that there will be consistency with all applicable state renewable policies, without identification of the policies or analysis of the 2040 General Plan against those policies is legally deficient. The analysis should be revised to include substantial evidence supporting this conclusion, and recirculated.

Background Report, p. 8-80 to 85: The Background Report's description of the environmental setting is drastically inaccurate and inadequate. The entirety of the Background Report's description of the existing energy resources and industry within the County is woefully inadequate. The entire discussion is less than five pages in length, and is devoid of any meaningful amount of data on energy source mix, County energy consumption, or other standard information that the public and decision makers need to understand the existing setting, environmental baseline, and impact analysis. Specific information that is in error or wholly missing includes, but is not limited to, any discussion of oil and gas based energy production and consumption within the County, any discussion of natural gas consumption within the County, and any discussion of the use of natural gas to fuel power plants and produce the electricity consumed by County residents. Finally, the discussion's estimate of energy employment within the County is a drastic underestimate. As set forth in the publically available study entitled "Economic and Tax Revenue Impacts of Oil Production in Ventura County," there are approximately 900 individuals employed by oil and gas explorers and producers within the County. That is more than double the amount disclosed by the DEIR.

J. Geologic Hazards

Page 4.7-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for

information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

K. Greenhouse Gas Emissions

Page 4.8-6: The DEIR's greenhouse gas reduction targets are not based on substantial evidence and violate CEQA case law. The DEIR explains that the Climate Action Plan ("CAP") developed as part of the 2040 General Plan applies the same targets to Ventura County as the state has adopted for all of California. This approach wholly ignores regional differences, which is an approach to local CAPs that courts have struck down in myriad cases. (See, e.g., *Golden Door Properties, LLC v. County of San Diego* (2018) 27 Cal.App.5th 892, 905; *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 225.) Courts have explained that local reduction goals cannot be based on statewide metrics and instead must explain why applying statewide data and reduction targets is appropriate for setting the metrics in the local region (here, Ventura County). Here, there is absolutely no substantial evidence supporting the application of the 40% and 80% statewide targets to Ventura County. This analysis should be done, incorporated into a revised DEIR, and recirculated for public review and comment.

Page 4.8-8: Greenhouse gas emissions thresholds identified in the DEIR for application to future projects are not supported with substantial evidence. The DEIR identifies two threshold "options" with which to analyze future projects, but neither is supported with substantial evidence. Both are also based on 2020 statewide targets. Yet, it is 2020 now and so these targets are wholly inappropriate for any project that is not built out before this year. Second, they are based on statewide criteria, which is inconsistent with CEQA case law requiring substantial evidence tying statewide reduction targets to the local context. (See, e.g., *Golden Door Properties, LLC v. County of San Diego* (2018) 27 Cal.App.5th 892, 905; *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 225.) The DEIR implies that it is fine to rely on these thresholds because they are identified (albeit not adopted) by Ventura County Air Pollution Control District. While CEQA permits borrowing thresholds from regulatory agencies, they must nonetheless be supported by substantial evidence. Here there is no substantial evidence provided in the DEIR supporting use of these thresholds.

Pages 4.8-11 through 37: Several identified General Plan policies are infeasible or preempted. The greenhouse gas emissions analysis relies upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include policies COS-7.2, 7.4, and 7.7, and implementation program M (oil and gas operations tax). Taking credit for policies that

are more than likely to be either struck down or that are simply infeasible results in an erroneous analysis, not based upon substantial evidence. (See, e.g., *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [mitigation measures must actually be enforceable].)

Page 4.8-39: The DEIR's greenhouse gas emissions analysis applies the wrong horizon year. It is unclear why the DEIR focuses on reductions by 2030, when the planning horizon for the GPU is 2040. DEIR Table 4.8-5 summarizes the assumed greenhouse gas emissions reductions by 2030, but not 2040, which is the planning horizon for the 2040 General Plan. The analysis should therefore be revised to consider the 2040 General Plan's consistency with the state's reduction targets, as applied to the year 2040.

L. Hazards, Hazardous Materials, and Wildfire

Page 4.9-1 through 2: As with most other sections of the Regulatory Setting and Environmental Setting sections of the DEIR impermissibly relies on a separate 1,000+ page appendix. See general comments on this deficiency.

Page 4.9-9: County Policy HAZ-7.1 is noted as requiring that the County review and analyze all proposed oil and gas exploration and production wells and projects and shall require compliance with all local, state and federal oil spill prevention regulations. This policy is inconsistent with the fact that local regulation of oil and gas exploration and production is largely the subject of preemption. Moreover, as previously noted, CEQA case law specifically prohibits deferring mitigation to resource agencies. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal.App.4th 645, 671 [an EIR cannot avoid studying impacts to biological resources by proposing a plan to mitigate presumed impacts based on future studies].)

Page 4.9-11 through 12: The discussion under Impact 4.9-1 fails to consider the existing oil and gas operations and the potential impact of new County policies. It is noted that oil and gas wells are among the uses permitted in the Rural and Open Space land use designation, which in turn includes approximately 98 percent of County land, but there is no discussion of what percentage of these lands are actually used for oil and gas production. It should be noted that a very small percentage of land is actually utilized for these operations. This section also notes that the potential for new pipeline construction and operation may be increased by the new 2040 General Plan policies limiting trucking as a means of transporting oil and gas from a new discretionary well. There is no discussion of the potential impact of constructing and operating new pipelines or the feasibility of this measure. How will right-of-way be acquired from offsite property? What legal constraints exist on located pipelines within or adjacent to sensitive land uses including residential areas? Is the true intent of this policy the elimination of

new oil and gas production uses? Nor is there any discussion of the alleged impact of the existing trucking of oil and gas products with regard to hazards or hazardous materials.

County Policies HAZ-5.2, HAZ-5.5, HAZ 5.8 and HAZ 7.1 and County Implementation Programs K and L are noted as providing guidance for the location, operation, and management of discretionary development including oil and gas exploration and production such that future sites would reduce impacts to public health and the environment but there is no analysis of how these policies may operate to reduce the impacts to a less than significant level. This finding is not supported by substantial evidence as required by law.

Page 4.9-14 through 16: The discussion under Impacts 4.9-2 and 4.9-3 similarly references County Policies HAZ-5.2, HAZ-5.5, HAZ 5.8 and HAZ 7.1. and County Implementation Programs K and L with no analysis of how these policies and programs would reduce potential impacts to a less than significant level. An EIR must contain an explanation of the reasoning supporting the EIR's impact findings, and the supporting evidence. (*See Napa Citizens for Honest Govt. v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 359.)

M. Hydrology

Pages 4.10-6 through 7: The DEIR fails to consider impacts associated with prohibiting development in certain locations and impacts associated with water usage. Proposed policies HAZ 2.1, and 4.14, and the DEIR's discussion of water wells, fails to account for or analyze the potential for environmental impacts. Restricting growth in certain development areas is likely to push development elsewhere, resulting in impacts that are not disclosed in this analysis.

Pages 4.10-9 through 10: The DEIR fails to support its conclusions regarding water quality and overdraft with substantial evidence. The analysis does not link its impacts determination to the effectiveness of GSPs and Ordinance 4468 to ensure impact is less than significant. There is no evidence supporting the conclusion that GSP/Ordinance 4468 compliance will ensure less than significant impacts. To the contrary, a cursory examination indicates that mere compliance will not be adequate. The GSPs have not even been developed (see DEIR p. 4.10-6) and no performance standards are identified for any proposed GSP. Ordinance 4468 is a groundwater pollution control ordinance (see Section 4811) and does not actually prohibit all drilling of new wells, which could lead to overdraft. (*See <http://pwportal.ventura.org/WPD/docs/Groundwater-Resources/Well%20Ordinance%20No.%204468.pdf>*.) Further, the DEIR punts impact analysis to a future date, and also presents internal inconsistencies in its analysis of Impact 4.10-3. Specifically, the DEIR states that compliance with GSPs will ensure no

over-extraction in unknown basins, but then also states that impact analysis cannot be performed at this time. This is then followed by the DEIR's unsupported less than significant impact conclusion (see 4.10.11). Given these inconsistencies, this analysis should be revised to include and cite to substantial evidence, and recirculated for public review and comment.

Page 4.10-13: The DEIR does not adequately analyze impacts to water for consumptive use. The analysis of Impact 4.10-6 relies upon an uncertain and unstable water supply, calling into question the DEIR's impact significance determination here.

N. Land Use Planning

Background Report p. 3-47: The DEIR does not analyze or reconcile the inconsistency between the 2040 General Plan and the Ventura Avenue Plan. The Ventura Avenue Plan clearly contemplates protection and expansion of oilfield uses, while the 2040 General Plan's goals, policies and programs do not. There is no analysis of this inconsistency, and instead, the DEIR makes the false assertion that the 2040 General Plan is consistent with the Ventura Avenue Plan. This analysis should be revised and recirculated for public review and comment.

Background Report, pp. 3-89, 3-90 and 3-97: As discussed previously, the DEIR's failure to address and analyze the impacts of up-zoning to meet future housing needs results in improper segmentation. The DEIR concedes that the County cannot meet post-2020 housing growth needs and commercial growth needs, and concedes that "up-zoning" would be required to meet anticipated RHNA housing obligations. However, the DEIR is devoid of any analysis regarding this apparent conflict. The reasonably foreseeable "up-zoning" needs to be analyzed as part of this Project and this analysis. (State CEQA Guidelines, §§ 15126, 15165 [when a project will be implemented in phases, the EIR must discuss and analyze the effects of the entire project].) As noted elsewhere, the underlying development potential methodology utilizes outdated (2014) RHNA numbers which effectively masks the disparity between "potential" and actual development that will take place through horizon 2040, burying the magnitude of the potential for land use impacts.

Page 4.11-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. The land use chapter of the Background Report is more than 135 pages, not including an attachment. A reader has to do significant digging just to find the relevant regulatory setting, which should be presented upfront, in the body of the DEIR. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

Page 4.11-2: The DEIR fails to cite to substantial evidence to support several of its land use impact conclusions. For example, the DEIR states, “In determining the level of significance, this analysis assumes that the 2040 General Plan would comply with relevant Guidelines for Orderly Development, greenbelt agreements, and the Save Open Space & Agricultural Resources (SOAR) initiative measure for Ventura County’s unincorporated areas.” But this conclusory statement is not supported with any analysis. See above comments on the Project Description relating to substantial evidence supporting the conclusion that the Project Description is consistent with these documents.

Page 4.11-2: The DEIR fails to analyze internal inconsistency, or consistency between the 2040 General Plan and the existing Area Plans that are not amended. The DEIR states that Threshold 25(1) asks whether the Project is consistent with the community character policies and development standards in the Ventura County General Plan goals, policies and programs, or applicable Area Plan. The DEIR goes on to explain that this threshold will not be considered in this DEIR because “this draft EIR is an evaluation of an update to the Ventura County General Plan goals, policies and programs, and Area Plans under which future projects would be evaluated.” However, failing to analyze this threshold means that there is no analysis of internal consistency. The Project Description chapter of the DEIR explains that very few changes are made to the Area Plans, therefore the Land Use & Planning chapter of the DEIR should consider whether the changes in the land use designations are consistent with all policies that are unchanged. See comment above regarding the Ventura Avenue Plan’s protection and expansion of oil field uses.

Page 4.11-3: The DEIR’s land use analysis relies on an unclear project description. General Plan Policy LU-1.2 generally describes the “Urban” and “Existing Community” area designations. But, as discussed above, the DEIR Project Description states that these designations are being replaced by 15 different and more specific land use designations. Therefore the Project Description and this policy are inconsistent. If the 2040 General is replacing the Urban and Existing Community designations with new designations, why is Policy LU-1.2 still a part of the 2040 General Plan? The same comment applies to Policy LU-2.1 and LU-3.1 through 3.3. If one of the salient features of the 2040 General Plan is to replace these general designations with more specific designations, these policies just further muddy the water on what exactly the Project Description is. Without a stable and consistent project description, there can be no legally defensible analysis of environmental impacts. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185.)

Page 4.11-6: The DEIR’s assumptions regarding the RHNA undermine the Project Description and analysis of land use impacts. 2040 General Plan Policy LU-1.3 states that the County will work with SCAG “to direct state regional housing needs allocations predominantly to cities...” However, as discussed above in regards to improper segmentation, the RHNA methodology is already available and estimates a

significant number of new units to be accommodated within the unincorporated county. Further, cities are likely to push back on their significantly higher RHNA allocations, and push those units out to the County such that the final number will likely be even greater. For all these reasons, and the ones identified in our comments on the Project Description, the entirety of the GPU should be paused until the RHNA allocations are finalized. See also comments above regarding Background Report pp. 3-89 to 3-90, 3-97.

Page 4.11-6: The DEIR fails to consider or analyze reasonably foreseeable implementation actions. 2040 General Plan Policy LU-4.2 requires zoning consistency between the GP and the zoning code. See comments above regarding improper segmentation and failing to consider reasonably foreseeable (and legally required!) implementation actions as part of “the project” for purposes of CEQA. See also, Implementation Program B, which requires that the County “review and amend, as necessary, applicable ordinances and regulations to ensure consistency with the General Plan, including the Zoning Ordinances and Building Code.” These policies further illustrate the DEIR’s inconsistency with CEQA’s mandates, which require analysis of the “whole” project. (State CEQA Guidelines, § 15378(a); see also *Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora* (2007) 155 Cal.App.4th 1214.)

Page 4.11-14: The DEIR relies on a 2040 General Plan Policy that is likely inconsistent with vested rights and/or preempted by state or federal law. Policy LU-17.4 prohibits the introduction of new incompatible land use and environmental hazards that would have health implications into or abutting existing residential areas, in particular within designated disadvantaged communities.” Yet there are no details provided as to what constitutes a health implication and no explanation as to why there is no similar prohibition against introducing new residential uses adjacent to land currently (or likely to be in the future) dedicated to oil and gas use.

Page 4.11-18: The DEIR fails to analyze the land use impacts (and all other impacts) associated with the new 2040 General Plan land use designations. The 2040 General Plan creates 13 new land use categories (or 15, given that the Project Description is inconsistent between sections of the DEIR) with distinct development standards—yet there is no real analysis of how the installation of the 13 or 15 new use classes that did not previously exist would not create a conflict with uses established pursuant to the six use designations established in the current General Plan. Notably, the DEIR concedes that the new land use classifications will result in development at a higher intensity in locations where residential, commercial, and industrial uses exist. Yet there is no explanation of how this intensification will be accomplished to avoid incompatibility. (As has been the case throughout the DEIR, Section 4.11 consists of a laundry list of LU policies, but, when it comes to explaining the role those policies play in avoiding or mitigating a potential impact (e.g. incompatible uses), the DEIR fails to provide that critical explanation/analysis.)

Page 4.11-21: The DEIR's vague and inconsistent Project Description results in unsupported conclusions regarding land use compatibility. The DEIR states that "Policies LU-4.1 and LU-4.2 would reduce incompatible land uses by specifying densities and/or intensities of allowed uses within each land use designation and maintaining continuity with neighboring zoning, land uses, and parcel sizes." But neither of these policies do this, or specify densities or intensities in any way. Therefore, it is unclear how the significance conclusion is supported. Similarly, the DEIR states that Policy LU-6.1 reduces incompatibilities by "specifying buffers" but this policy does not specify any performance criteria or distance criteria at all. It only states generally and generically that "adequate buffers" be incorporated into non-agricultural uses adjacent to agricultural uses.

Page 4.11-22: The DEIR's analysis and conclusions regarding division of an established community are not based on substantial evidence. The DEIR relies on only one policy (promotion of orderly and compact development) to ensure that there will be no division of established communities. Yet, this is not enough substantial evidence to support the significance conclusion. The DEIR does not even acknowledge that foreseeable infrastructure improvements caused by intensification of growth in a confined space will, at minimum create temporary divisions and disruptions during construction (e.g., trenching to upsized infrastructure, road closures to improve streets). Thus, it is unclear how the conclusion that impacts are less than significant can be supported.

Pages 4.11-22 through 24: The DEIR cannot conclude that the 2040 General Plan is consistent with the RHNA when the 2040 General Plan includes only a "placeholder housing element" and improperly segments the Housing Element and accommodation of the RHNA from its Project Description. The DEIR states that "Implementation of the 2040 General Plan policies and programs listed above, coordination of the RHNA with housing element updates, and compliance with applicable regulations would ensure that development under the 2040 General Plan is consistent with the RHNA." This essentially argues that the 2040 General Plan is consistent with the RHNA because the County will change the General Plan in the very near future to accommodate the RHNA. This is nonsensical. For all the reasons provided in our comments on the Project Description, the RHNA, which is imminent and by the County's own estimate will be released while the DEIR is out for public review, accommodating the RHNA may likely require changing the designations identified in the 2040 General Plan. This undermines the meaning and reliability of the DEIR's impact analyses. This is exactly why CEQA prohibits improper segmentation of related projects. (See *Orinda Association v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171.)

Pages 4.11-18 through 24: Even though the 2040 General Plan will provide the land use and planning blueprint for the entire County for the next 20 years, the land use impacts analysis is a mere seven pages. This alone indicates that the impact analysis is so truncated as to be meaningless. Further, regarding analysis of Impact 4.11-

13, there are presumably a number of plans/policies adopted for purposes of environmental protection that were not considered in the DEIR—the DEIR lists a mere handful of plans and policies. In most EIRs, this analysis is much more thorough.

O. Mineral and Petroleum Resources

Background Report p. 8-71: The Background Report Drastically Underestimates Known, Recoverable Oil and Gas Reserves Mischaracterizes Oil and Gas as Not Within the Definition of “Mineral Resources.” It does not appear that the County considered Aera’s historic production and known reserves. This critical omission causes the DEIR to underestimate County-wide oil and gas reserves. Additionally, it appears that the County eschewed accepted methodological practices in estimating oil and gas reserves so as to further underestimate the volume of and value of these known recoverable resources. Finally, the DEIR appears to treat oil and gas as a resource separate and apart from aggregate mineral resources (such as sand and gravel) for purposes of determining the consequences of adopting GP 2040. Under CEQA, the DEIR must fully and fairly disclose whether adoption of GP 2040 will result in the loss of availability of a known mineral resources—this includes the loss of oil and gas as well as the loss of sand, gravel or other minerals utilized in concrete production.

Pages 4.12-1 through 4: The DEIR lacks an adequate description of the existing regulatory setting. The DEIR seems to disclose only those federal and state agencies that regulate pipelines and flaring. This is, at best, only a fraction of the regulatory framework relevant to oil, gas, and mineral production.

Pages 4.12-5 through 6: The impact assessment methodology is based on incomplete and inaccurate underlying data. The 2040 General Plan relies upon a four year old map of petroleum field locations, not reserve locations. The boundaries of a field do not indicate the known extent of recoverable sub-surface reserves. This results in a significant underestimate of impacts on extraction.

Page 4.12-7: The DEIR makes a bare conclusory statement that the 2040 General Plan is consistent with and will not impair the implementation of any mineral resource goal/policy in any of the Area plans. However, a cursory examination of the County’s North Ventura Avenue Plan (“NVAP”) reveals that this bare assertion is incorrect. The NVAP contemplates new and expanded oilfield development within land specifically zoned for such development. *See* NVAP at page 12. How is this overarching development consistent with the goals and policies of GP 2040 aimed at phasing out the extraction and production of oil and gas in the County?

Page 4.12-8: The DEIR relies upon legally infeasible policies. As discussed earlier, several of the policies relied upon in the DEIR are likely legally infeasible, and therefore cannot provide a basis upon which to analyze impacts. Specifically, Policies

COS-7.2 and 7.3 likely amount to regulatory takings. Under COS-7.3, modification of a previously issued permit would wrongfully subject the permittee to compliance with current development constraints across the entire permit area. In other words, the request to drill one well on a 1000 acre permit site would trigger compliance with all new regulations across the entire site, despite the minor nature of the request. Moreover, Policies COS-7.7 and 7.8 are preempted, as a local agency cannot eliminate the use of trucking of oil or limit flaring to County-defined instances of "testing" or "emergency." Those activities are governed by state and federal law.

Page 4.12-10: The DEIR's conclusions for Impact 4.12-1 are unsupported. The DEIR states that residential and industrial uses will be installed in a major mineral resource zone (MRZ-2), but inexplicably concludes that the impact is less than significant. There are no facts or analysis supporting this conclusion.

Page 4.12-11: The DEIR's conclusion of less than significant with respect to mineral resources is contradicted by the DEIR's own supporting Background Report. The DEIR concedes that more than half of the 2040 General Plan area is MRZ 3a/b. The DEIR's Background Report states that such lands have mineral value as follows: "MRZ-3: Areas containing known mineral deposits that may qualify as mineral resources (3a) or areas containing inferred mineral deposits that may qualify as mineral resources (3b). Further exploration work within these areas could result in the reclassification of specific localities into the MRZ-2 category." The DEIR's less than significant conclusion is wholly unsupported, as development will necessarily impact MRZ 3 resources, and these zones contain inferred mineral deposits.

Page 4.12-12: The DEIR's reliance on the 2018 County of Los Angeles Report is unfounded. The DEIR proposes the imposition of various measures and policies based on the alleged human health findings contained in a report referred to as "County of Los Angeles. 2018. Public Health Safety Risks of Oil and Gas Facilities in Los Angeles County. Los Angeles County DPH" (hereinafter "2018 County of Los Angeles Report"). The preparers of this report have themselves disputed the validity of the report's conclusions. As such, the 2018 County of Los Angeles Report does not amount to substantial evidence supporting the DEIR's imposition of measures and policies to allegedly protect human health.

Pages 4.12-11 through 19: The DEIR fails to put forth a good faith effort at mitigating significant impacts to oil and gas resources. The DEIR fairly concludes that 2040 General Plan Policy COS-7.2 will have an adverse and significant and unavoidable impact on oil and gas exploration and production. Additionally, as already noted above, it arguably constitutes a regulatory taking. However, there is no meaningful effort made to mitigate this significant impact. The fundamental purpose of an EIR is to identify ways in which a proposed project's significant environmental effects can be mitigated or avoided. (Pub. Resources Code, §§ 21002.1(a), 21061.) Therefore,

declaring an impact significant does not absolve a lead agency from identifying and adopting all feasible mitigation measures, if those measures do not reduce impacts to a level of less than significant. Further, the reasonably foreseeable indirect impacts of implementation of Policy COA-7.2 are not evaluated in any way in the DEIR. Foreign importation of oil increases greenhouse gas emissions and air quality degradation. Even if those impacts were to occur outside of the County's boundary, CEQA mandates that the County analyze and disclose these impacts in this DEIR. (See State CEQA Guidelines, § 15358(a)(2).) None of the proposed mitigation measures reduce these potentially significant impacts to less than significant.

Page 4.12-22: The DEIR fails to analyze and disclose reasonably foreseeable indirect impacts associated with several of the 2040 General Plan's proposed policies. The DEIR ignores the foreseeable adverse consequences associated with large scale installation of oil and gas pipelines, which would include, but not be limited to, soils/geology, hydrology and water quality, cultural and hazards impacts. (See *Laurel Heights Improvement Association v. Regents of Univ. of California* (1988) 47 Cal.3d 376, 396 [EIR must analyze any action if it is a reasonable, foreseeable consequence of the project].) None of the proposed mitigation measures reduce these potentially significant impacts to less than significant.

P. Noise and Vibration

Page 4.13-5: The methodology utilized to assess operational impacts fails to consider potential significant increases in traffic projected to occur as a result of the new RHNA allocation in the region and state housing legislation and policies. As discussed in the comments on the Transportation and Traffic Section, this analysis should await the final RHNA numbers and the update of the County Housing Element.

Page 4.13-23: The discussion under Impact 4.13-4 lists oil supply facilities among major industrial noise sources. The only support for this assertion is a reference to the Background Report. The Background Report, however, includes no analysis or justification for this conclusion, and the DEIR is likewise devoid of any evidence supporting this conclusion. As such, the DEIR does not, and cannot, demonstrate that oil and gas production generates noise above and beyond the noise levels generated by general industrial activities.

Page 4.13-27: County Policy HAZ 9.2 provides for specific noise control measures applicable to new noise generators located near sensitive uses but fails to restrict the development of new sensitive uses adjacent to areas where new noise generators are permitted uses. Policy HAZ 9.2 does not go far enough in mitigating potential noise impacts on sensitive uses. Absent policies addressing the location of new sensitive uses, the County policy can only serve as a limitation on the development of otherwise permitted uses such as oil and gas production uses. Mitigation measures must

have a reasonable relationship or nexus between a project's impacts and the measure or condition that is imposed. (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825; *Dolan v. Tigard* (1994) 512 U.S. 374.) Implementation of this policy may well result in a regulatory taking of property interests to the extent that they would deprive property of investment backed expectations.

Q. Population/Housing

Page 4.14-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for information buried in a more than 1,000+ page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.) Further, even taking the Background Report into account, there is no discussion of Senate Bill 330, which has significant population and housing repercussions that must be taken into account as part of the DEIR's analysis.

Pages 4.14-6 through 8: The DEIR fails to account for the impending RHNA numbers, and this results in improper segmentation and piecemealing. See previous comments on this topic.

R. Public Services and Recreation

Page 4.15-1: As with other sections of the DEIR, this section does not reflect the likely increases in population that will result in the upcoming RHNA allocations to the County and to cities within the County. See previous comments on this topic.

S. Transportation and Traffic

Page 4.16-4: The VMT estimates in Table 4.16 are not reflective of the additional traffic that will be created by the new RHNA allocations both within the County and in the region and new state legislation and policies that are intended to increase housing production. Regional traffic is significant because the threshold included in the DEIR include regional traffic in the baseline. Projected increases in housing are significant and will generate significant increases in regional VMT which in turn will impact traffic within the unincorporated County.

4.16-7 through 8: The proposed thresholds are not really thresholds of significance. The purported threshold that assumes a reduction of VMT by 15% below existing projected levels is really proposed mitigation, not a threshold of significance. Even so, this approach is subject to numerous objections, not the least of which is that it is aspirational social engineering based on stated state goals with respect to GHG reduction and not potential environmental impacts. There is no analysis of the feasibility

of achieving a 15% reduction in VMT on a project-by-project basis. A failure to address the issue of feasibility renders this analysis illusory. There is no substantial evidence to support its feasibility. See *Cleveland Nat'l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

Page 4.16-10 through 11: The use of the existing baseline is flawed based on the potential significant increases projected to occur as a result of the new RHNA and state housing legislation and policies. This analysis should await the final RHNA numbers and the update of the County Housing Element. Moreover, this threshold is likely to obsolete in view of the fact that the DEIR notes that this threshold will no longer apply once the Ventura County ISAG VMT thresholds are adopted which is likely to occur prior to June 30, 2020, when VMT analysis becomes mandatory.

Page 4.16-12 through 13: The proposed General Plan polices seem to improperly conflate VMT standards with LOS standards. Proposed Policy CTM-1.1 bases an acceptable level of service on VMT impacts yet fails to address previous County policies that base level of service impacts on specified congestion related impacts (LOS standard). Is it the intent of the County to ignore proposed congestion impacts and, if so, how will proposed Policy CTM-1.7 be implemented so as to require discretionary projects to share the cost of added trips and improvements to the road system per the County traffic mitigation program? Under VMT theory congestion is good as it serves to promote reductions in VMT by encouraging high density development and the use of alternative means of transportation. What improvements are contemplated as mitigation?

Page 4.16-15: How will the County comply with the provisions of the Congestion Management Program as required by Government Code Section 65088 et seq. Proposed Policies CTM-2.7 and CTM-2.8 contemplate that the County will cooperate with Ventura County Transportation Commission in complying with the provisions of Government Code Section 65088 et seq regarding Congestion Management Programs (CMPs). The management of congestion per the CMP specifically includes the use of LOS standards, not VMT.

Page 4.16-23: The DEIR analysis that asserts that the new 2040 General Plan Policy addressing flaring and trucking associated with new discretionary oil and gas wells would result in a potential reduction in VMT in the County is not supported by substantial evidence. This analysis is flawed in that heavy trucks are not among the categories of VMT included in the OPR recommended threshold. (Office of Planning and Research, Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) at page 4).

Page 4.16-24: The forecasts set forth in Table 4.16-4 similarly fail to consider likely increases in VMT throughout the region based on the proposed new RHNA

allocations for the County and cities within the County and are not supported by substantial evidence. Table 4.16-4 purports to be a 2040 forecast, but, as with other portions of the DEIR, fails to account for the much higher RHNA numbers that will be applied in the region and as a result fails to provide an adequate basis for the thresholds identified in Table 4.16-5, which in turn results in a default to a finding of significant and unavoidable impacts for impacts 4.16-1 and 2.

T. CUMULATIVE IMPACTS

Aera's comments regarding cumulative impacts are addressed in the individual topics identified above. However, generally, the DEIR fails to adequately consider whether the Project's individual impacts, when considered in the context of other projects proposed within the County, the region, and the individual incorporated cities within the County, results in cumulatively considerable environmental impacts. This includes whether the RHNA numbers that will be assigned not just to the County, but to the individual incorporated cities within the County, will result in new projects, new general plan amendments, new zoning amendments, or other policy changes that, together with the proposed 2040 General Plan, will result in cumulative impacts relating to air quality, greenhouse gases, noise, traffic, aesthetics, mineral resources, and biological impacts, among others.

U. ALTERNATIVES

Page 6-1: The Alternatives analysis is flawed in its failure to account for new RHNA allocations and housing legislation. The underlying land use policies are subject to change in the near future as a result of pending increases in the regional RHNA allocations and State housing policy. Like most other sections in the DEIR, it is premature to consider alternatives to the project in advance of a the issuance of the final RHNA allocations in the region and an analysis of the impact of State housing policy on land use within the County.

Page 6-1: The Alternatives Section is flawed due to the DEIR's failure to adequately disclose and mitigate significant and unavoidable impacts. CEQA requires that public agencies do their best to disclose the actual severity of significant impacts, and implement and enforce all feasible mitigation measures to reduce significant impacts. As described above, this DEIR declares several impacts "significant and unavoidable" without meaningful analysis, or a true good faith examination of feasible mitigation measures. Because CEQA mandates that the project alternatives identified and analyzed in an EIR be based on what can feasibly reduce significant and unavoidable impacts, when those impact analyses are flawed, so too is the alternatives analysis.

III. CONCLUSION AND REQUEST FOR RECIRCULATION

As described above, the DEIR is deficient in myriad ways and we respectfully request that it be significantly revised and recirculated, as required by CEQA and the State CEQA Guidelines. Recirculation is required when new information is added to an EIR after notice of public review has already been given, and that new information requires additional review by the public. (Pub. Resources Code, § 21092.1.) Where new information added to an EIR is “significant”, recirculation is required. (*Ibid.*) Where new information shows a new impact, a substantial increase in the severity of an impact, a new feasible alternative or mitigation measure, or where the DEIR previously circulated was so fundamentally inadequate and conclusory in nature that public comment was essentially meaningless, the new information added to the EIR is “significant.” (*Laurel Heights Improvement Association v. Regents of Univ. of Cal.* (1993) 6 Cal.4th 1112, 1130; State CEQA Guidelines, § 15088.5(a).) Further, where the previously circulated EIR wholesale omitted key information necessary to actually determine what a proposed project’s potentially significant impacts would be, recirculation is required. (*Mountain Lion Coalition v. Fish & Game Commission* (1989) 214 Cal.App.3d 1043; *Save Our Peninsula Comm. v. Monterey County Bd. of Supers.* (2001) 87 Cal.App.4th 99, 131.)

Again, Aera appreciates the opportunity to review and comment upon the DEIR, and looks forward to seeing the recirculated report in the near future. As requested, we are providing the name of our point of contact, mailing address and email address as follows:

Michele Newell
3382 N. Ventura Avenue
Ventura, CA 93001
E-mail: MLNEWELL@AERAENERGY.COM

Sincerely,



Michael S. James
Senior Counsel
Aera Energy LLC

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Monday, February 24, 2020 7:38 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Christina Pasetta

Contact Information:

Christina.Pasetta@patagonia.com

Comment On:

No flares that will be wasteful and pollute our air.

Your Comment:

Flares are wasteful and polluting. End this practice and do the real work of deconstructing this infrastructure.

Simmons, Carrie

From: J.P. Rose <JRose@biologicaldiversity.org>
Sent: Monday, February 24, 2020 12:09 PM
To: Curtis, Susan; General Plan Update
Subject: Request for 90-Day Comment Deadline Extension on the Draft EIR for the 2040 General Plan
Attachments: Request for Extension of Comment Deadline 2-24-2020.pdf
Importance: High

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Ms. Curtis,

Please see the attached letter requesting a 90-day extension on the comment period for the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan.

Please respond at your earliest convenience, and thank you for your attention to this matter!

-J.P.

J.P. Rose
Urban Wildlands Staff Attorney
CENTER *for* BIOLOGICAL DIVERSITY
660 S. Figueroa Street #1000
Los Angeles, CA 90017
Cell: (408) 497-7675
Office: (213) 785-5406
Twitter: @JPRose5
jrose@biologicaldiversity.org



February 24, 2020

Sent via email

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, California 93009-1740
susan.curtis@ventura.org
GeneralPlanUpdate@ventura.org

Re: Request for 90-Day Comment Deadline Extension on the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan

Dear Ms. Curtis:

The Center for Biological Diversity respectfully requests an extension of the comment period for the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan (State Clearinghouse No. 2019011026). The current 45 day comment period imposes a deadline of February 27, 2020, and is inadequate to allow full review of (1) the Draft EIR which covers complex issues in its 598 pages plus six appendices, including a 1034 page background report and (2) the Public Review Draft of the General Plan, which is 463 pages and includes four appendices.

It is simply not possible for the public to meaningfully review and comment on these documents in such a short timeframe. Due to the sheer volume and complexity of the materials, we believe an additional 90 days is required. Extending the deadline to May 27, 2020 would allow for a more comprehensive review and more useful comments. We therefore respectfully request that you consider extending the comment period an additional 90 days.

Thank you for your attention to this matter.

Sincerely,

J.P. Rose
Urban Wildlands Staff Attorney
Center for Biological Diversity
660 S. Figueroa Street, Suite 1000
Los Angeles, California 90017
jrose@biologicaldiversity.org

February 25, 2020 - **via email**
P.O. Box 5119
Ventura, CA 93005-0119

Ms. Susan Curtis, susan.curtis@ventura.org
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Subject: Comments on the Draft Environmental Impact Report for the 2040 Ventura County General Plan Update (Planning Division Case Number PL17-0141)

Dear Ms. Curtis:

My name is Donald Price and I am an environmental engineer retired from the Ventura County Air Pollution Control District. Please accept the following comments regarding the Draft Environmental Impact Report (DEIR) for the 2040 Ventura County General Plan Update.

- 1) The frequency of Greenhouse Gas (GHG) Strategy Implementation and Monitoring reports and GHG emission inventory updates have been extended beyond agreed limits.

DEIR, January 2020, 2040 General Plan Implementation Programs, Conservation and Open Space Element (COS), Page 4.8-27:

Implementation Program Z: Public Reporting on GHG Strategy Progress. The County shall prepare public reports on the results of GHG Strategy implementation and monitoring and present these reports to the Board of Supervisors. The first report shall be submitted to the Board of Supervisors two years after the approval of the General Plan, after which the Board of Supervisors will determine the appropriate reporting interval. The County shall also present a more detailed progress report to the Board of Supervisors, including results of the latest GHG inventory update, every five years.

Implementation Program AA: GHG Inventory Updates. The County shall update the County's GHG emissions inventory at least every five years.

The above reflects a significant change in the schedule for preparation of GHG Strategy Implementation and Monitoring reports and GHG emission inventory updates based on the last known discussion of the subject by the Board of Supervisors on August 6, 2019.

Appendix B: Climate Change, May, 2019, Table B-9, Page B-17:

V - Public Reporting on GHG Strategy Progress

The County shall prepare public reports on the results of GHG Strategy implementation and monitoring and present these reports to the Board of Supervisors at least annually. The County shall also present a more detailed progress report to the Board of

Supervisors, including results of the latest GHG inventory update, at least every five years. *[Source: New Program]*

As noted in Program V above, GHG Strategy Implementation and Monitoring reports were scheduled annually in the Preliminary Draft General Plan Update. GHG emission inventory updates were proposed every five years. However, on August 6, 2019, Supervisor Bennett made it clear that five years between GHG emission inventory updates is not acceptable.

August 6, 2019, Board of Supervisors, Supervisor Bennett, [interpretation added]:

“In another place in the plan, we are going to have an annual update; it already says we’re going to have an annual update. It’s just not a greenhouse gas emissions inventory update. We will have an update... We will have it annually...”

“At the same time, waiting 5 years [for a GHG emission inventory update] seems like a long time. One thought I had was, everybody’s going to want that first early check... At the 2 year mark, let’s have our first attempt; let’s see where we are. And then actually say it’s up to the Board to decide how often they want to do it after that. So, you don’t lock it in and say five years, and have everybody go ‘this Board’s just gonna ignore this’ because it’s every five years...”

“I think we’ve got to give everybody confidence that the first greenhouse gas emissions inventory [update] is going to happen fairly promptly, and you don’t set a five-year precedent.”

I agree with Supervisor Bennett; five years is too long to wait for a GHG emission inventory update. As I interpret his remarks, the first GHG inventory update should be done within two years of General Plan adoption, after which the Board will decide GHG inventory update frequency. At no time did the discussion involve the GHG annual implementation and monitoring report. I can find no further Board discussion or activity on this issue, so I do not know if the Board approved, modified or abandoned Supervisor Bennett’s proposal.

Nevertheless, I support GHG emission inventory updates every two years, as proposed by both Supervisor Bennett (for the initial report) and the Planning Commission.

- 2) The proposed Climate Action Plan (CAP) will never meet either the 2030 or 2040 GHG emission reduction targets.

As noted in Table 4.8-3 below, Ventura County GHG emission reduction targets have been calculated for the years 2020, 2030, 2040 and 2050. Also included are the GHG reductions needed to meet the targets, calculated from the baseline 2015 GHG emission levels for Ventura County. However, based on estimated emission reductions from “quantified” GHG reduction programs, neither the 2030 or 2040 targets will be met.

Implementation of the quantified policies and programs in Table 4.8-5 would collectively provide reductions of 151,903 MTCO₂e by 2030, an approximate 9 percent reduction from forecast 2030 levels and 30 percent of the reductions needed to meet a target of 1,113,972 MT CO₂e for consistency with emissions targets identified in Policy COS-10.2 (41 percent below 2015 levels by 2030). An additional 361,250 MT [metric tons per year] CO₂e of reductions would be needed to close the gap with the 2030 target.

The shortfall for 2040 is 644,032 MT CO₂e per year. See table from Appendix D below.

DEIR, January, 2020, Page 4.8-7

Greenhouse Gas Emissions

Table 4.8-3 2040 General Plan Target Reduction from 2015 Baseline Emissions Levels, 2020 to 2050

| | 2020 | 2030 | 2040 | 2050 |
|------------------------------------------------------------------------------------------|-----------|-----------|---------|-----------|
| Target Percentage Below 2015 Baseline GHG Emission Levels | 2.1% | 41.3% | 60.9% | 80.4% |
| GHG Emissions Target (MT CO ₂ e) | 1,856,620 | 1,113,972 | 742,648 | 371,324 |
| GHG Reductions Needed from Forecast GHG Emissions to Meet Targets (MT CO ₂ e) | -62,649 | 513,153 | 797,982 | 1,162,398 |

Notes: the negative number for GHG reductions in 2020 means that the forecast GHG emissions for 2020 will be below the 2020 target.

Source: Ascent Environmental, 2019

Appendix D, issued January, 2020, GHG Calculation Summary, unmarked chart on page 2

| GHG Gap Analysis (MT CO ₂ e / YEAR) | | |
|----------------------------------------------------|------------------|------------------|
| SECTOR | 2030 | 2040 |
| Building Energy Total | 285,079 | 225,567 |
| Transportation Total | 487,058 | 446,355 |
| Solid Waste Total | 278,381 | 270,289 |
| Water and Wastewater Total | 13,148 | 13,148 |
| Off Road Equipment Total | 52 | 52 |
| Agriculture Total | 248,882 | 241,541 |
| Stationary Source Total | 314,526 | 343,679 |
| Legislatively Adjusted GHG Emissions Total | 1,627,124 | 1,540,630 |
| Target for Consistency with State Climate Policies | 1,113,972 | 742,648 |
| Reductions Needed to meet GPU Targets | 513153 | 797982 |
| CTM-B | -3454 | -5111 |
| CTM-C | -47231 | -78405 |
| COS-S | -2019 | -3367 |
| COS-8.4 | -59972 | -20445 |
| COS-W | -5042 | -6677 |
| COS-H | -354 | -708 |
| AG-H | -33830 | -39236 |
| Quantified Reductions | (151,903) | (153,950) |
| Gap Remaining | 361,250 | 644,032 |

“Quantified” GHG emission reductions are described in Table 4.8-5 (and the Appendix D table above). Table 4.8-6 lists CAP programs with “qualitative” GHG reduction benefits.

Table 4.8-6 provides an overview of 2040 General Plan programs that would result in additional GHG emissions reductions, and achieve additional progress toward meeting the 2030 GHG reduction target.

Forty-three (43) programs are listed in Table 4.8-6. Of these, I believe only twelve (12) may result in measurable GHG emission reductions. These are:

| Program | Description | Monitoring Procedure |
|-----------|-----------------------------------------------------|-------------------------------------------|
| AG-I/J | Transition farm water pumps from diesel to electric | Count new electric pumps |
| COS-M | Tax Oil and Gas facilities | Track oil and gas production |
| COS-P | Energy Reach Codes | Track projects. Track Title 24 compliance |
| COS-S | All electric new residential with solar | Track projects. Track Title 24 compliance |
| COS-T | Energy efficiency in county owned buildings | Track projects |
| HAZ-Q/W | Local zero carbon energy generation | Track projects |
| HAZ T/U/V | Energy efficiency in new construction | Track projects. Track Title 24 compliance |
| PFS-A | Energy efficiency in county owned buildings | Track projects |

In addition, Table 4.8-7 (Page 4.8-45) lists 52 GHG emission reduction policies with NO implementation program. Measurable emission reductions from these policies are unlikely.

DEIR, January 2020, Page 4.8-52

Additionally, longer term GHG reduction goals beyond 2030 established by State executive orders would necessitate additional or more stringent GHG reduction policies and programs beyond what is presented in the 2040 General Plan...Although the 2040 General Plan would not conflict with State GHG reduction targets and recommended local actions established in the 2017 Scoping Plan, and the 2040 General Plan would set future GHG emissions on a downward trajectory consistent with State reduction targets, it cannot be determined at this program level of analysis that future emissions within the county meet State 2030 and post-2030 targets for GHG reduction. Therefore, this impact would be **significant and unavoidable**.

This means that it is likely to be completely impossible for Ventura County to achieve its future GHG emission reduction goals with the proposed climate action plan. The cooperation of every agency in the county (local, state or federal) with a stake in energy efficiency, transportation, water use, and air pollution will be required to meet our GHG emission reduction goals.

- 3) The prohibition on new natural gas infrastructure may be premature; it may be possible to distribute hydrogen for fuel cell electric vehicles through this delivery system

DEIR, January 2020, Page 4.8-46

Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development

To support the proposed reach codes under COS-S, the 2040 General Plan shall include a new program in the Hazards and Safety element that prohibits the installation of new natural gas infrastructure in new residential construction through amendments to the Ventura County Building Code. This program shall also be extended to include commercial building types such as offices, retail buildings, and hotels where the use of natural gas is not critical to business operations and contain appliances that can be feasibility substituted with electricity powered equivalents.

No one is more interested in closing down the fossil fuel industry and transitioning to 100 percent clean renewable energy than I am. However, in the future, blending hydrogen into natural gas pipeline networks (or distributing pure hydrogen through these networks) may be possible. This would enable fuel cell electric vehicle (FCEV) fueling at homes or businesses. Fuel cells produce only electricity and water and FCEVs may be an important transportation alternative in the future. Blending would eliminate the cost of building dedicated hydrogen pipelines for this purpose. There are issues with the process (like safety, material durability and integrity management, leakage, downstream extraction) that are likely to be overcome. Therefore, it may be premature to ban new natural gas pipeline infrastructure.

For more information, see the following paper from the National Renewable Energy Laboratory:
"Blending Hydrogen into Natural Gas Pipeline Networks: A Review of Key Issues"
Authors: M. W. Melaina, O. Antonia, and M. Penev
NREL/TP-5600-51995, March 2013

- 4) I appreciate that a climate action plan is included in the 2020 General Plan. However, it is unlikely that this plan will prevent serious sea level rise, increased heat, increased fire, and water shortages in Ventura County between now and 2100. The IPCC clearly warn that we have only a few years to make a transition away from fossil fuel use if we are to have any chance of avoiding devastating climate impacts. Transitioning to clean renewable energy is essential.

Thank you for your consideration.

Signed,



Donald R. Price (drp@cefogg.com)

c: Clerk of the Board, clerkoftheboard@ventura.org
GeneralPlanUpdate@ventura.org

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 3:26 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Sue Poland <suepoland@sbcglobal.net>
Sent: Tuesday, February 25, 2020 3:25 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

Dear County Board of Supervisors,

I have grave concerns about the General Plan EIR and the way it's being pushed through with an incredibly brief review period.

Among my concerns are provisions that would affect all of us who own or live in older homes... Namely: The County failed to analyze the impact of solar installation and net zero energy modifications on historic resources. Proposed Mitigation Measure CUL-1C (Impl Program COS-X) demands that "before altering or otherwise affecting a building or structure 50 years old or older..." the applicant must retain a qualified architectural historian. This means everyone who has a house built in 1970 or older who wants to upgrade to more energy efficient standards must first consult with and get a report/approval from an architectural historian. This will include improvements that the County is claiming to "encourage" such as solar installation, energy efficient windows, etc.

Clearly this requirement will either delay or put an end to people moving to more energy efficiency building standards in their homes, which will, in turn, impact the County's ability to achieve their goals

for net-zero carbon building and GHG emissions. As the owner of a simple home initially built in 1940, this would be an unreasonably burdensome requirement.

Thank you for giving this point full consideration. I look forward to hearing your response to this particular item.

Sincerely,

Susan Poland
Oak View

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 3:36 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Marshall C. Milligan <mcmilligan@gmail.com>
Sent: Tuesday, February 25, 2020 3:32 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; General Plan Update <GeneralPlanUpdate@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

My family has owned for generations and continues to own agricultural properties in Ventura County, including mineral rights under a number of currently and previously owned parcels. I'm writing to you as an owner of mineral rights in Ventura County.

The 2040 General Plan Draft EIR fails to give proper analysis to mineral resources and must be corrected to more adequately and fairly assess the impact of the proposed general plan on owners of mineral rights.

Neither the EIR nor the Background Report provide a complete and thorough description of the existing regulations affecting the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

The EIR fails to analyze the direct and indirect impacts to mineral resource development as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses over known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding the anticipated “buildout” in terms of acreage, actual location, number of dwelling units, and development density and intensity.

As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to develop and manage mineral resources in the County.

Gaps in the 2040 General Plan Draft EIR must be corrected, and the Draft EIR recirculated, to fairly present the foreseeable impacts on owners of mineral rights in the County.

Sincerely,

Marshall C. Milligan

805-570-0332

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 3:26 PM
To: Simmons, Carrie
Subject: FW: Letter re: Draft EIR
Attachments: Ag & Oil letter to County (Noelle C Burkey).docx; Ag & Oil letter to County (Noelle C Burkey).pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: WCF (Office) <office@woodclaeysensfoundation.org>
Sent: Tuesday, February 25, 2020 3:21 PM
To: llampara@colabvc.org
Cc: Ron Bowman <ron@l-binc.com>; Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Letter re: Draft EIR

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Please see the attached letter for my comments regarding the Draft EIR for the county's General Plan. I am including a Microsoft Word document as well as a PDF version.

Sincerely,

Noelle Burkey

Chief Executive Officer
The Wood-Claeysens Foundation



office@woodclaeysensfoundation.org
the Wood-Claeyssens foundation
T: [805-966-0543](tel:805-966-0543) F: [805-966-1415](tel:805-966-1415)
www.woodclaeysensfoundation.org

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Sent via the Samsung Galaxy Note9, an AT&T 5G Evolution capable smartphone

Noelle C Burkey
Chief Executive Officer
The Wood-Claeysens Foundation
P.O. Box 30586
Santa Barbara CA 93130-0586

February 21, 2020

Attn: RMA Planning Division
General Plan Update
800 S. Victoria Avenue, L#1740
Ventura, CA 93009-1740

Dear Planning Division:

I have serious concerns about some of the language in the Draft EIR.

Page 2-17 Ag Mitigation AG-2

Loss of farmland, requires purchase of like kind land at 2-1 ratio to be placed into a conservation easement. This is not practical. There is very little land available in the County for sale and this would be cost prohibitive. Was this the intent? Needs additional discussion and evaluation.

The EIR recognizes that “water for irrigation will be reduced as a result of the implementation of the 2040 General Plan.”

Since there is no actual policy that states “we will reduce water for irrigation,” the County did not analyze this impact. Although they state the impact will occur as a direct RESULT of their policies. Simply not acceptable.

The Courts are extremely clear that the EIR must analyze for all reasonably foreseeable impact that result from implementation of the “project.”

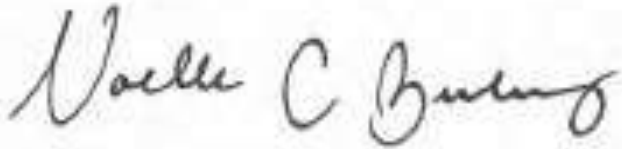
Additionally, the intent of CEQA EIR impact analysis is to evaluate the potential impact of development/policies on future access to oil reserves. However, Section 4.12 primarily evaluates the impact of oil and gas production on H&S. The County's analysis does not meet the intent and standard of review for CEQA.

In summary, CEQA mandates that the EIR contain sufficient detailed data to allow the reader to understand and evaluate the County's impact analysis. The EIR and its 1,000-page Background Report and filled with errors, vague statements and outdated information. All the information is older than 2015. The maps in the EIR and Background Report are not legible and therefore not useful.

I urge you to take the time to correct and recirculate the EIR.

Thank you.

Sincerely,

A handwritten signature in black ink that reads "Noelle C Burkey". The signature is written in a cursive style with a large initial 'N' and a distinct 'C' before the last name.

Noelle C Burkey
Chief Executive Officer
The Wood-Claeyssens Foundation



Board of Supervisors:

My Name is Michael Penrod and I have worked in commercial/ residential real estate development and land use advising for many years in Ventura County. My family and I love Ventura County and are so lucky to call such a beautiful place our home. However, we have some worries regarding the current Draft EIR and feel that changes need to be implemented in order to better serve Ventura County.

As someone who advises landowners on land use, I can confidently say that there is a substantial amount of evidence to why the document is not ready for prime time. The DEIR has not been given the thorough consideration it deserves and is resulting in an incomplete policy analysis. Though I understand the efforts to mitigate serious challenges facing Ventura County, this document as it is currently is incomplete. The housing element is not even completed, yet the DEIR is being pushed out.

The Ag conservation policy as proposed in the General Plan Update is not only infeasible, it is overstepping the intent of SOAR that has been voter approved twice in the last over 25 years. If this policy was in place, very few projects would have been able to navigate the purchase of development rights. It creates an inflated land value that will eliminate any economic returns for smart and quality growth. Basically, it could double the land costs which will only punish the residents by greatly increasing housing costs. We have, in the past, attempted to seek potential land owners that would consider selling their future development rights and was not able to find one land owner that would even consider the concept. CEQA requires that any mitigation measure must be feasible and reasonable. This is neither.

The future of Ventura is greatly hindered based on the lack of housing, both market rate and affordable. This impacts all employers so much that a significant amount of very good companies have and continue to relocate out of our County for economic reasons. Any communities that don't grow gentrifies and eventually stagnates to the point of fiscal disaster for the local governments. Just look at the City of Santa Paula that didn't expand for over 30 years and the financial impact on the City and it's services for their residents.

This is a very serious and important document that the County should be taking the appropriate amount of time to ensure it is whole and complete.

Please revise and recirculate the draft to identify these issues and make the assumptions clearer. Thank you in advance for considering my concerns.

A handwritten signature in black ink, appearing to read "Michael Penrod". The signature is written in a cursive, flowing style.

Michael Penrod, Partner
Parkstone Companies

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 4:26 PM
To: Simmons, Carrie
Subject: FW: Board of Supervisors Letter
Attachments: 20200225160533739.pdf

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



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From: Mike Penrod <m.penrod@parkstoneinc.com>
Sent: Tuesday, February 25, 2020 4:12 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: FW: Board of Supervisors Letter

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Sent by mail also.

Mike Penrod
Parkstone Companies
860 Hampshire Road, Suite U
Westlake Village, CA 91361
m.penrod@parkstoneinc.com
805-373-8808 ext: 105

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 4:26 PM
To: Simmons, Carrie
Subject: FW: Comments on draft General Plan

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Aubrey Sloan <asloan5119@gmail.com>
Sent: Tuesday, February 25, 2020 4:14 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on draft General Plan

Ventura County RMA Planning Division,

I'd like to start by thanking the staff for putting this complicated document together and for receiving my input. My name is Aubrey E."Bud" Sloan, I am a local rancher with a significant stake in the outcome of this draft. My main concerns are the potential negative impacts on our county's history: local agriculture.

After reviewing the draft EIR, I found Background Report on agriculture to be inadequate, vague and using outdated information. Many of the tables and figures, such as Fig 9-6, table 9-7 are using old data. While this older data can be important in providing background, the EIR references the Background Report as the current conditions, despite this data not being more current than 2015. The Background Report must be updated to reflect current data.

There is also an issue with the map (Fig 9-7) which is of such poor quality that it cannot be used to show any information. This map must be replaced with a higher quality map.

Another major area that leaves the Background Report and document as inadequate is the lack of information around project water demand, supply and pumping costs. This is left out of the Background Report and the entire EIR. This must include analysis on the effects of increased competition of water supplies due to development planning in the General Plan.

I ask that these issues be taken into consideration and addresses appropriately.

Thank you,
Aubrey E."Bud" Sloan

Simmons, Carrie

From: Kurtz, Sandra <S.Kurtz@musickpeeler.com>
Sent: Tuesday, February 25, 2020 2:51 PM
To: General Plan Update
Cc: McAvoy, Laura
Subject: Comments on 2040 DEIR
Attachments: Scan.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

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Ms. Curtis, please see attached comment letter and confirm receipt.

Thank you.

Sandra Kurtz
Assistant to Laura K. McAvoy

MusickPeeler

Musick, Peeler & Garrett LLP
2801 Townsgate Road Suite 200
Westlake Village, California 91361

s.kurtz@musickpeeler.com
www.musickpeeler.com

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F (805) 418-3101

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From: noreply@musickpeeler.com [mailto:noreply@musickpeeler.com]
Sent: Tuesday, February 25, 2020 2:48 PM
To: Kurtz, Sandra
Subject: Scan attached 00000.010

Scan attached

Laura K. McAvoy
40 Encino Avenue
Camarillo, CA 93010

February 25, 2020

Ventura County Board of Supervisors
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

I'm writing to you as a resident of the County concerned about the viability of the oil and gas industry in Ventura County.

The 2040 General Plan Draft EIR fails to give proper analysis to oil and gas mineral resources.

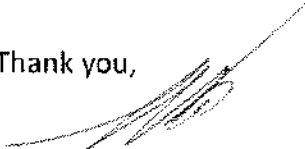
Neither the EIR nor the Background report provide a complete and thorough description of the existing, current regulatory setting that oversees the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

The EIR fails to actually analyze for direct and indirect impacts to mineral resource zones that will occur as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses OVER known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. These incompatible land uses will significantly impact future mineral resource production and must be evaluated and mitigated for in the EIR.

The EIR never addresses indirect impacts to mineral resource development that will occur under the 2040 General Plan. As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to produce mineral resources in the County.

The Draft EIR is lacks critical analysis and must be corrected and recirculated to ensure a fair process for Ventura County residents.

Thank you,



Simmons, Carrie

From: Kurtz, Sandra <S.Kurtz@musickpeeler.com>
Sent: Tuesday, February 25, 2020 2:52 PM
To: General Plan Update
Subject: Ventura General Plan 2040 DEIR
Attachments: Scan.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

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Ms. Curtis, attached is a letter in opposition to the 2040 DEIR.

Please confirm receipt.

Sandra Kurtz
Assistant to Laura K. McAvoy

MusickPeeler

Musick, Peeler & Garrett LLP
2801 Townsgate Road Suite 200
Westlake Village, California 91361

s.kurtz@musickpeeler.com
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From: noreply@musickpeeler.com [mailto:noreply@musickpeeler.com]
Sent: Tuesday, February 25, 2020 2:48 PM
To: Kurtz, Sandra
Subject: Scan attached 00000.010

Scan attached

Robert & Sandra Kurtz
187 Stanislaus Avenue
Ventura, CA 93004

February 25, 2020

Ventura County Board of Supervisors
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

I'm writing to you as a resident of the County concerned about the viability of the oil and gas industry in Ventura County.

The 2040 General Plan Draft EIR fails to give proper analysis to oil and gas mineral resources.

Neither the EIR nor the Background report provide a complete and thorough description of the existing, current regulatory setting that oversees the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

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The Draft EIR is lacks critical analysis and must be corrected and recirculated to ensure a fair process for Ventura County residents.

Thank you,

Robert & Sandra Kurtz

Simmons, Carrie

From: Lizzy Martinez <emchambers@aol.com>
Sent: Tuesday, February 25, 2020 2:57 PM
To: General Plan Update
Subject: 2040 General Plan Draft EIR Comment McLoughlin Property - aka Olivas Lands

Follow Up Flag: Follow up
Flag Status: Flagged

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily

available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government’s housing policies.
3. The EIR does not adequately address the enormous “indirect impacts” that will occur as a result of implementing the General Plan, calling them “less than significant.”
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,
Elizabeth Chambers Martinez and Family
Great Granddaughter of Mark McLoughlin

Simmons, Carrie

From: Marshall C. Milligan <mcmilligan@gmail.com>
Sent: Tuesday, February 25, 2020 3:32 PM
To: Curtis, Susan; General Plan Update
Subject: 2040 General Plan Draft EIR Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

My family has owned for generations and continues to own agricultural properties in Ventura County, including mineral rights under a number of currently and previously owned parcels. I'm writing to you as an owner of mineral rights in Ventura County.

The 2040 General Plan Draft EIR fails to give proper analysis to mineral resources and must be corrected to more adequately and fairly assess the impact of the proposed general plan on owners of mineral rights.

Neither the EIR nor the Background Report provide a complete and thorough description of the existing regulations affecting the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

The EIR fails to analyze the direct and indirect impacts to mineral resource development as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses over known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding the anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity.

As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to develop and manage mineral resources in the County.

Gaps in the 2040 General Plan Draft EIR must be corrected, and the Draft EIR recirculated, to fairly present the foreseeable impacts on owners of mineral rights in the County.

Sincerely,

Marshall C. Milligan

805-570-0332

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 4:57 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: lisa eklund <eklundproperties@gmail.com>
Sent: Tuesday, February 25, 2020 4:50 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

The DEIR does not account for or include reliable information about some of the key challenges facing Ventura County, primarily housing. The Ventura County regional economy is struggling. According to the Ventura County Civic Alliance 2019 State of the Region Report, the region continues to struggle with "anemic" economic growth. The report's author, Tony Biasotti, told reporters that "the fact remains that Ventura County's economy is either in recession or very close to recession the last few years." According to the Center for Economic Research and Forecasting at California Lutheran University, Ventura County's economic output shrank in 2016 and 2017 when adjusted for inflation. The region's economic output was projected to contract again in 2018.

The DEIR fails to recognize or address the serious affordability crisis Ventura County residents face. According to Census Bureau data and Ventura County Star reporting, more than 35,000 people left the region between 2013 and 2017, citing affordability concerns.

These issues need to be addressed when considering our options to create plans for our future. As it is now, this document fails to properly and accurately address these issues and should therefore be corrected to include this information for recirculation.

Thank you,
Lisa, Eklund

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 4:57 PM
To: Simmons, Carrie
Subject: FW: County General Plan Response

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Dave Chambers <davechambers911@gmail.com>
Sent: Tuesday, February 25, 2020 4:53 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: County General Plan Response

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

800 S. Victoria Ave., L #1740

Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

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5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,

Dave Chambers



~~FEB 25 2020~~ B

FEB 25 2020

February 25, 2020

Ventura County CoLAB
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Chairman

Mark Mooring, Buon Gusto Farms
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Bud Sloan, Sloan Ranches
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Director

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Director

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Jeff Nobriga, California Resources Corp.,
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Tony Skinner, IBEW Local 952
Director

Alex Teague, Limoneira
Director

Andy Waters, Waters Family Farms
Director

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Re: 2040 General Plan Draft Environmental Impact Report

Dear Ms. Curtis:

Thank you for the opportunity to provide our comments on the 2040 General Plan Draft Environmental Impact Report (EIR). Ventura County CoLAB represents over 500 members consisting of citizens, labor organizations, businesses and agricultural interests in Ventura County. We have been actively participating in the 2040 General Plan Update process and hope that you will give our comments on the EIR full consideration as you move forward with your response.

CoLAB has identified several significant concerns with the EIR. As you are aware, the County has an obligation under the California Environmental Quality Act (CEQA) to disclose, thoroughly analyze and quantify all reasonably foreseeable impacts of a project (here, defined as the implementation of the 2040 General Plan), and propose feasible mitigation measures to reduce these impacts.

While we understand that programmatic-EIRs are necessarily broader in scope than project-specific EIRs, all EIRs must comply with CEQA guidelines, including the requirement that all required information be included in the EIR to support any analysis of impacts. In addition, CEQA guidelines specifically state that the agency cannot defer, or "push off" to a future project-specific analysis, the determination of reasonably foreseeable impacts in the programmatic EIR (15152(b)).

In a 2014 ruling, the California Court of Appeal upheld the CEQA standard, stating "Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the "rule of reason," rather than any semantic label accorded to the EIR."

The 2040 General Plan EIR, as written, does not meet CEQA standards and must be revised and recirculated.

General Comments

- There are glaring inconsistencies of policies in the 2040 General Plan. The 2040 General Plan contains policies that conflict, are infeasible, are vague and ineffective, or attempt to pre-emptively seize authority that the County does not have. Any analysis of impacts in the EIR that relies upon such flawed policies for significance determination is deficient and unsupported.

As an example, this EIR applies policies that “encourage” or “discourage” behaviors as evidence of reducing an impact to “less than significant.” But the EIR does not provide success metrics for any “encourage/discourage” policies. Nor does the EIR contain any discussion that differentiates as to what level of “encourage/discourage” compliance led to the determination that the impact was reduced to “less than significant”; likewise, the level of “encourage/discourage” non-compliance that would lead to a determination of “significant.”

- CEQA defines the project as the "whole of an action" subject to a public agency's approval or funding "that may result either directly or indirectly in physical changes to the environment." However, throughout the document, the EIR fails to analyze or discuss *all* policies and programs that will result in impacts.

As an example: The EIR does not discuss and consider the complete implementation of the 2040 General Plan (including all policies or programs that will increase vegetation fuel loads) in the analysis and determination of wildfire impacts. In another section, the EIR does not evaluate the implementation of the 2040 General Plan (including buildout under the Land Use Designations, which will increase competition for water supply) in the analysis and determination of impacts on agricultural land.

“Cherry-picking” select portions of the whole project for impact analysis and determination does not meet the CEQA standards. The EIR must be revised to analyze and disclose the impacts of the whole project, which is the entire 2040 General Plan.

Project Description

- The 2040 General Plan and EIR are inconsistent in their description of the project. The EIR does not provide a complete list of all policies and programs in the 2040 General Plan (example: LU-11.X). The EIR does not describe or identify which policies and programs of the 2040 General Plan are meant to replace or modify which policies and programs in the existing General Plan. The EIR also does not identify which existing General Plan policies and programs are being removed as part of this project. Without this information (perhaps provided as a matrix outlining additions, modifications, updates, and replacements), the EIR does not provide the reader with information necessary to evaluate or understand the County's analysis of impacts.

- The Project Description does not provide sufficient information necessary to analyze and determine impacts. The EIR provides only a vague description of the Land Use Designations that will exist under the 2040 General Plan, and vague statements of “buildout” allowing “relatively higher intensity” residential, commercial and industrial land uses. Neither the EIR nor the Background Report provide information regarding estimated and anticipated “buildout” in terms of acreage, actual location, number of dwelling units, and development density and intensity. The EIR contains no information regarding the amount, timing, and final anticipated buildout under the 2040 General Plan. While the lack of information may be due to the EIR being completed prior to the issuance of Regional Housing Needs Allocation numbers from the State, such vague and meaningless information does not meet the CEQA standard for analysis and determination of impacts.

In addition, there are conflicting and confusing statements throughout the EIR about the anticipated “buildout” under the 2040 General Plan. In one section, the EIR states that development anticipated under the 2040 General Plan Land Use Designations will be “consistent with densities and intensities” allowed under current zoning. And in another section, the EIR states that development will be “relatively higher” in density and intensity than current. Without consistent, detailed, and accurate information regarding the anticipated buildout under the 2040 General Plan, the impact analyses in the EIR are flawed and incomplete and must be revised.

Background Report and supporting Appendices

Throughout the EIR, the reader is referred to the Background Report and Appendices for all data and technical information used in the analyses of impacts. In actuality, many sections of the Background Report contain only general, outdated, incomplete, and, at times, incorrect information. In some instances, information and data conflict between different Appendices. Unsupported, erroneous, outdated and conflicting information should not be used for impact analysis.

- Example: Outdated information

All data (whether in prose or tabulated form) in Chapter 9 of the Background Report is grossly outdated. This includes readily accessible data, such as crop reports. Current data on crops and crop production is publicly available and can be downloaded from the County’s own Agricultural Commissioner’s Office website.

Providing “older data” is helpful to evaluate historic trends. However, in every section, the EIR refers the reader to the Background Report for the project’s “current” conditions.

The Background Report must be updated with the most current data available. Failure to disclose and apply current and timely information and data in the analysis of impacts renders the analyses in the EIR incomplete, at best.

- Example: Incorrect data:

Page 2-54 states "...[the oil and gas] industry supported 3,211 direct jobs and over \$652 million in labor income in Ventura County" (*emphasis added*). Yet these numbers directly conflict with the uncited statement on page 8-80: "there were 431 employees working in Ventura County [for oil and gas]..." (*emphasis added*). Which of these numbers (if any) is correct and represents the "current conditions" for the project?

The Background Report must contain correct and factual data to support the analysis of impacts in the EIR.

- Example: Conflicting data

Page 2-54 of the Background Report states "Production throughout the state had been declining since the 1980s, as oil reserves in the state have diminished. In recent years, the drilling of oil wells and well stimulation (including hydraulic fracturing), has been reduced in response to current oil prices." And page 8-74 of the Background Report states: "this level of production represents a 42 percent decrease in production from 1987 levels" (*emphasis added*). Yet Appendix D: GHG applies calculations that assume an anticipated future increase of over 1 million barrels of production. Appendix D does not provide references or citations as to what information the County may have that supports an increase in reserves and production.

Page 9-34 of the Background Report states that 85% of all agricultural products are exported out of the County, with 60% being exported to foreign lands. Yet only a few sentences later, the Background Report describes the exportation of Ventura County agricultural products as a "small niche." 85% does not align with either "small" or "niche" and the use of this phrase needs to be corrected or clarified.

- Example: Poor quality information

The maps provided in the EIR and the Background Report are of such small size, low resolution and insufficient detail that they do not provide the reader with the information necessary to evaluate or determine impacts or to determine which parcels or areas may be impacted. In some instances, the maps are blurry and notations on the map are illegible (such as Figure 9-7).

For example, Figure 11-11 is of such poor resolution and detail that it is impossible for the reader to determine where actual urban-wildfire risk interface areas may exist for any parcel or specific area. Figure 11-11 is significantly smaller than 8.5X11 and is of such great scale of distance that the entire County appears bright red and does not provide enough detail for any meaningful analysis of impacts.

- Example: Vague or missing information

The Background Report does not provide any information about Land Conservation Act (LCA) contract trends. Without an understanding of how contract numbers may be

increasing or decreasing, or whether the specific agricultural “use types” (i.e., row crop, orchards, grazing, etc.) of lands under LCA contract has been shifting over time, the Background report lacks the information necessary to evaluate impacts to LCA contracted lands.

Section 4.1:

- Regulatory Setting:

The Regulatory Setting of this section provides a good overview of the lighting restrictions in County’s Zoning Ordinances. However, the EIR does not reference other regulations and regulatory bodies that may affect aesthetic resources or recognize that impacts to aesthetics is not limited solely to lights. This section should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that may affect aesthetics as a whole (for example: State Historic Preservation Programs, Scenic highway and Byway Programs, Homeowners Associations within the unincorporated area, Building Codes, etc.)

- Impact 4.1-3 (Create glare for motorists) and Impact 4.1-4 (Create impacting day or night views)

The EIR does not analyze all applicable and appropriate 2040 General Plan policies for impacts. Policies HAZ-10.5, HAZ-11.7 (solar reflective roofs), HAZ-11.9 (promoting “cool pavement”) and Implementation Program U (Solar Canopies) all have reasonably foreseeable significant impacts that are not disclosed or analyzed in the EIR. The EIR should be updated to analyze the impacts of the whole of the project.

- Proposed mitigation measure AES-1: The EIR does not evaluate the technologic and economic feasibility of this mitigation measure, including whether this mitigation measure would foreseeably create compliance difficulties with policies HAZ-10.5 and HAZ-11.7.

Section 4.2

- The EIR does not disclose or analyze the impacts of the most significant issues facing agriculture in Ventura County: lack of economic sustainability, lack of farmworker housing, increased regulatory demands on normal farming practices, increased competition for water resources, and increased compatibility conflicts with non-ag land uses. This issues all significantly impact the conversion of agricultural land to non-agricultural uses.

The 2040 General Plan will directly and indirectly magnify these issues. Yet the EIR either fails to analyze these issues or dismisses them as “less than significant” without supporting evidence for the determination.

- Regulatory Setting

Neither the EIR nor the Background Report provide any information regarding the recent Hemp Cultivation restrictions imposed by the County. A thorough discussion of all setbacks and restrictions on normal farming practices should be included in the EIR and use in the analysis and determination of impacts.

- Proposed mitigation AG-2:

This mitigation measure is infeasible and must be removed from the EIR.

As the County is already aware, CEQA requires that all mitigation proposed in an EIR be feasible and that feasibility take into account economic, environmental, social, and technological factors. In 2016, Supervisor Linda Parks proposed a mitigation measure at the Local Agency Formation Commission. Supervisor Parks' mitigation measure was identical to AG-2, with one notable exception: she proposed a 1-to-1 replacement requirement and this EIR proposes 2-to-1 replacement. At that meeting, County Counsel, Michael Walker, informed Supervisor Parks that her proposed mitigation measure was economically infeasible and could not be included in an EIR. Mr. Walker cited several court decisions to support his statement, including *Masonite v. Mendocino* and *City of Irvine v. County of Orange*. In *City of Irvine v. County of Orange*, the Court found that the "sheer astronomical expense of land support the finding of the EIR that the purchase of agricultural conservation easements is a non-starter." And the requirements in AG-2 go well beyond what Supervisor Parks had proposed.

Even without the question of economics, mitigation measure AG-2 still does not meet the CEQA standard for feasibility. In the discussion of this mitigation measure, the following information is not included in the EIR:

- Whether there is sufficient land available for purchase/conservation easement for each farmland category;
- Any information that could constitute a "plan" for management of farmland in conservation easements;
- An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with land use compatibility conflicts and increased urban-ag-interface);
- Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and,
- Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

Furthermore, CEQA guidelines require that all mitigation measures proposed in an EIR must be shown to reduce impacts. An infeasible mitigation measure, by definition, cannot and will not reduce impacts.

Mitigation Measure AG-2 must be removed and the EIR revised to propose feasible alternative mitigation measures. CoLAB has proposed several alternative mitigation measures in this letter for you to consider.

- Water Supply

On page 4.2-5, the EIR states "the General Plan would not result in any other changes that due to location and nature would result in conversion of farmland." This statement is refuted only a few sentences later when the EIR acknowledges the impacts of both economic burdens and decrease in water supply for irrigation.

Both the EIR and the Background Report fail to discuss or provide any information regarding projected water demand that will occur as a result of the project. But the EIR admits in the Methodology discussion of this section that a decrease in water supply for irrigation will be an indirect impact of the 2040 General Plan. Reducing water for irrigation will convert agricultural land to non-agricultural uses and cause a loss of topsoil, resulting in addition loss of agricultural land. This reasonably foreseeable indirect impact must be analyzed, and mitigation measures proposed that preserve the ability of agriculture to irrigate agricultural land at sufficient volumes to keep lands in active crop production and protect loss of topsoil from wind erosion.

- Other direct and indirect impacts to agriculture not analyzed in this EIR

- Neither the EIR nor the Background Report provide information regarding estimated and anticipated "buildout" under the 2040 General Plan in terms of acreage, actual location, number of dwelling units, and development density and intensity. As the EIR is anticipated to be completed prior to the County receiving the Regional Housing Needs Allocation number, the EIR simply does not have the data necessary to conduct the analysis required under CEQA to determine either where or what the full extent of potential impact on agricultural lands from increased urban-ag interface.
- The EIR does not analyze impacts from any policies in the 2040 General Plan related to bicycle network expansion. Policies such as CTM-3.3, CTM-3.4, CTM-3.5, CTM-3.6, CTM-3.7, CTM-2.12 and Implementation Program L support the expansion of the County bicycle path network. These policies will result in bicycle paths on or immediately adjacent to agricultural lands.

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of these policies for their direct and indirect impacts on conversion of agricultural land and on establishing non-agricultural uses adjacent to agricultural lands. The EIR must be revised to include this analysis and then recirculated.

Proposed mitigation: Protect agricultural land from direct and indirect impacts (such as physical loss of agricultural land converted to a bicycle path, urban-ag interface encroachment and compatibility conflicts) by establishing setbacks on non-AE zoned

lands that will prohibit the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned AE.

- The EIR does not analyze the direct and indirect impacts of policies that support transportation improvements such as roadway widening on the loss of agricultural land. On page 4.1-28 the EIR states that implementation of the 2040 General Plan will create increased traffic volumes and page 4.3 of the EIR states that the increased traffic will result in "physical changes...necessitated by the 2040 General Plan (e.g., new facilities, infrastructure upgrades").

The Background Report includes the County's buildout plans for future roadway widening and improvements to address the increased traffic caused by the project. These roadway improvements are cited in the section 4.16-1 and referenced in the EIR determination of impacts.

Some of the locations identified for roadway widening and improvements will result in the conversion of agricultural land to non-agricultural uses and the conversion of agricultural land due to the loss of topsoil, particularly in the Victoria and Olivas Park Road areas. Yet the EIR has failed to analyze this significant impact or proposed mitigation to reduce it.

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of policies supporting roadway expansion for their direct and indirect impacts on conversion of agricultural land and on establishing non-agricultural uses adjacent to agricultural lands. The EIR must be revised to include this analysis and then recirculated.

- Page 4.2-13 of the EIR states "[Policy] AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the

potential for conflicts would be minimal. This impact would be less than significant” (*emphasis added*).

The determination in the EIR is not supported by factual evidence. Both historic and current County actions demonstrate that, contrary to the EIR’s assertion, the County creates new restrictions and ordinances on agriculture and farming operations solely because of “conflicts attributed to residential development.” The recent interim urgency ordinance restricting hemp cultivation is one such example.

In light of the current actions of the County and the Board of Supervisors to place severe setbacks on hemp cultivation and create economic injury to farmers, the EIR’s assertion that the County will utilize the Right to Farm Ordinance to protect agricultural operations from nuisance complaints is unsubstantiated by factual evidence. This determination analysis is flawed. The EIR must conduct a thorough analysis of impacts to agriculture from the increase in nuisance complaints that will arise from implementation of the project.

Proposed mitigation: Strengthen the Right to Farm Ordinance to prevent nuisance complaints from being used as the sole basis to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices.

- The EIR omits any analysis of direct and indirect impacts of economic sustainability on conversion of agricultural lands.

The EIR asserts that there are “existing mechanisms in place to support the preservation of agriculture” and reduce significant impacts to the environment. As stated in the EIR, one of these mechanisms is the Save Open Space and Agricultural Resources (SOAR) initiative. SOAR recognizes that “for agriculture to be sustainable in Ventura County, it must remain economically viable” and mandates that the County “promote the economic viability of agricultural lands by assisting agricultural producers and establishing zoning policies that support long term investment in agriculture” as a method of reducing the conversion of agricultural lands to non-agricultural uses.

Yet no analyses of the impact of Policy AG-5.2 (transition to electric- or renewable-powered equipment) and AG-5.3 (transition to electric- or renewable-powered irrigation pumps) were provided in the EIR. These policies will adversely impact the economic sustainability of agriculture by increasing costs of normal farming operations. Agricultural profitability has a direct impact on the conversion of agricultural lands to non-agricultural uses, as recognized in the EIR’s discussion of LCA contracts. The EIR should analyze the impacts of economic sustainability on the conversion and loss of agricultural land and propose mitigation measures to reduce this impact.

In addition, the EIR does not analyze other impacts from the project that will decrease economic sustainability for agriculture and result in conversion of agricultural lands to non-agricultural uses. The project will cause increased urban-ag interface. It is well acknowledged that as non-agricultural land uses expand, compatibility conflicts with normal farming operations increase (*San Diego County General Plan EIR, Napa County General Plan EIR*). Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and trespass on agricultural lands.

These impacts decrease the economic stability and sustainability, as agricultural operations are subjected to restrictions on normal operations, setbacks and cultivation restrictions, and increased security costs. Agricultural profitability has a direct impact on the conversion of agricultural lands to non-agricultural uses, as recognized in the EIR's discussion of LCA contracts. The EIR should analyze the impacts of economic sustainability on the conversion and loss of agricultural land. The significant impact of conversion of agricultural lands to non-agricultural uses due to profitability is best reduced by mitigation measures that support a network of economic sustainability and stability for local farming. One potential proposed measure is outlined below.

Propose mitigation:

Page 9-3 of the Background Report states that the "current trend is for 'locally' grown" products. The Background Report goes on to acknowledge there are limited opportunities for this in Ventura County due to the lack of processing operations. Agricultural Processing should be a growth industry that supports economic sustainability for agriculture in Ventura County. This can be facilitated by mitigation measures that expand the ability of local growers to build processing facilities, as well as permit more types of processing, such as additives and bottling.

The definition of "pre-processing" in the Non-Coastal Zoning Ordinance must be expanded to create opportunities for long-term economic viability for agriculture. With very minor changes in the NCZO to the term "pre-processing", the County would create more options for bagged and juice box products that would foster more options for field processing of avocados, lemons and strawberries into guacamole, lemonade and purees.

The current total allowable acreage for processing countywide is limited to 12 acres. Increasing the allowable acreage to a minimum of 100 acres would better support the needs for pre-processing in the County.

- **Determination of Impact 4.2-3**

In the discussion supporting the determination of "less than significant" impacts, the EIR does not rely on data or actual information, but rather in vague descriptors. On page

4.2-19, the EIR states that "these impacts will only occur in a small area. On page 4.2-20, the EIR uses the phrase "most areas."

The use of vague descriptors like "small" and "most" fail to convey any information about the actual impact. Use of these descriptors (rather than actual data such as acreage and residential density and intensity adjacent to LCA contracted lands) precludes any ability to analyze this impact. By relying on vague and meaningless terms for determination of impacts, the EIR does not actually disclose any information about the impact itself. To meet CEQA standard and guidelines, the actual acreage, location and intensity of urban-ag interface must be evaluated in the EIR to determine both significance of impact and quantification.

Neither the EIR nor the Background Report provide information regarding estimated and anticipated "buildout" under the 2040 General Plan in terms of acreage, actual location, number of dwelling units, and development density and intensity. As the EIR is anticipated to be completed prior to the County receiving the Regional Housing Needs Allocation number, the EIR simply does not have the data necessary to conduct the analysis required under CEQA to determine either where or what the full extent of potential impact on agricultural lands from increased urban-ag interface.

Section 4.5

- The EIR does not analyze either the feasibility of or significant impacts caused by Mitigation Measure CUL-1C on the County's GHG/Zero Net Energy/Carbon/Energy Efficiency goals. This mitigation measure modifies Implementation Program COS-X to require that all houses constructed in 1970 and earlier must undergo historic evaluation before upgrades can be made. "Upgrades" include modifications required or "encouraged" in the 2040 General Plan, such as the installation of solar panels, reflective roofs, updating windows and doors to more energy efficient models, and potentially wiring and electrical upgrades to support conversion to all electric appliances. In order to meet GHG, zero net carbon, zero net energy, energy efficiency and energy conservation goals and directives in the project, the County must rely on residents to complete these upgrades. But this mitigation measure discourages (and in some cases will effectively prevent) residents from upgrading their homes. The impact of this mitigation measure on the County's ability to achieve the projects goals, policies and programs must be analyzed.

Section 4.8

- Mitigation Measure GHG-1
Both the EIR and the Background Report fail to disclose and provide any information regarding Ventura County's existing and on-going energy supply conditions, which include "public safety shutdowns" of large sections of the electrical grid. County residents have suffered through extended electrical power outages that prevented the

use of any electrical appliances (including hot water heaters, HVAC systems, and cooking appliances).

By prohibiting natural gas infrastructure, the County is removing residents' access to non-electric utilities. This will subject Ventura County residents to extended periods without hot water, heat, and the ability to cook food. A thorough and complete analysis of impacts would reveal that this mitigation measure presents a public health and safety risk. While not specifically discussed in the CEQA guidelines, common sense would demand that any mitigation measure that creates or amplifies a public health and safety risk is infeasible.

In addition, the EIR does not analyze the reasonably foreseeable impact of this mitigation measure on increasing GHG emissions. Many residents who will be forced to have only electric appliances will utilize fossil-fuel powered generators to run those appliances during power shutdowns. The surge of generator sales and use related to the California power outages is discussed in depth in the Wall Street Journal, Fox Business, CNBC, LA Times, and the San Francisco Chronicle. While some residents may use solar (battery stored) power, the EIR has provided no information about how many residents are anticipated to convert to solar and this "assumption" cannot be applied in the determination of significance of this impact.

Section 4.9

- Determination of significance for Impact 4.9-1 and Impact 4.9-2

The EIR does not include Policy CTM-6.4 in its impact analysis. Furthermore, neither Policy LU-11.X nor Implementation Program LU-Program X are mentioned or analyzed for impacts anywhere in the EIR. Yet the EIR has determined, without having conducted a complete and thorough analysis of the entire project, that the impact will be less than significant.

As the 2040 General Plan policies do not place any restrictions on or specify what types of alternative energy production shall be allowed, the EIR must analyze any and all reasonably potential production types. This includes those types that require the use and disposal of chemicals. According to the US EPA, common chemicals used in alternative energy production include hydrochloric acid, copper, silicon, and cadmium, among many others— all of which are considered both hazardous materials and hazardous wastes.

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of these policies for their direct and indirect impacts on hazardous materials and hazardous waste risks. The EIR must be revised to include this analysis and then recirculated.

- Impact 4.9-6

The EIR acknowledges that "managing fuel through activities such as vegetation removal and controlled burns, the County and other agencies would be directly reducing the chance of wildfire as well as fuels that would feed wildfires..." (*emphasis added*).

CoLAB agrees with the County's assertion that the removal of vegetation reduces the impact of wildfire risk. By the same logic, and with no evidence to the contrary in either the EIR or the Background Report, increasing vegetation shall increase the impact of wildfire risk. However, the EIR does not analyze the impacts of policies COS-3.2, COS-1.15, Implementation Program COS-H and Implementation Program COS-C and others which increase fuel load and vegetation that "feed wildfires."

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of these policies for their direct and indirect impacts on wildfire risks. The EIR must be revised to include this analysis and then recirculated.

- The EIR states "'...the County shall discourage the building of homes in very high fire severity zones. By discouraging development in these areas, the County seeks to reduce the incidence of wildfire and minimize wildfire effects.'" But the County has failed provide information that proves this policy will actually reduce impacts, as required under CEQA. Neither the EIR nor Background Report contain any information this is necessary to determine how - and to what extent - this policy will reduce impacts. The EIR does not provide any analysis or information to determine the County's anticipated compliance goal for these "encourage/discourage" policies. Without such data, the EIR does not provide evidence that the policies will indeed reduce impacts.
- The Background Report provides data on the locations and potential locations of hazardous materials and hazardous wastes in Ventura County (pg. 11-68 and 69) But this information is never applied in the EIR analysis for impacts 4.9-1, 2, and 3. There is no discussion, description of locations, or map evaluating potential areas of development under the Land Use designations in the 2040 General Plan against the known locations of hazardous materials and hazardous wastes. Yet, the EIR has determined, without actually conducting such an analysis, that impacts will be less than significant.

This impact determination is premature. The EIR must analyze the potential "buildout" under the Land Use Designations in the 2040 General Plan against the known locations of hazardous materials and waste.

Section 4.10

The EIR does not evaluate the impacts of Land Use Designations and policies that will force planned growth into existing Industrial and Commercial lands on their exposure to flood hazards (Impact 4.10-13).

The Background Report contains an erroneous map that misrepresents the potential overlap of Industrial and Commercially designated areas with designated flood hazard areas. The area delineated as “floodplain” in Figure 3-7 does not correlate with Ventura County GIS data. Ventura County GIS data provides information that supports the determination that the policies in the 2040 General Plan will create a significant impact, as there are industrial and commercial parcels within the flood hazard zone. CoLAB has attached both Figure 3-7 and a map (Figure A) from the County View’s website, created with the County’s GIS data for comparison.

Section 4.11

The EIR does not analyze policies in the 2040 General Plan that will require solar installation, reflective roofs, and other improvements in their analysis for Impact 4.11-1. As Ventura County has many neighborhoods and residential areas with distinct architectural styles, these policies will have a significant impact on compatibility with existing architectural form and style and must be analyzed.

Section 4.12

- Page 4.12-11 and 12: CEQA intends for this impact analysis is to determine and quantify the impact of the project on the ability to access reserves. Yet this section primarily evaluates the perceived impact of oil and gas production on local populations. While we support the County’s willingness to conduct supplemental impact analysis in the EIR, the County still has an obligation under CEQA to conduct the actual analysis required. The County’s analysis of Impact 4.12-3 does not meet the intent and standard of review under CEQA. The EIR must be revised to include the CEQA required analysis, which is whether the allowable buildout and other policies in the 2040 General Plan will hamper access to reserves.
- Regulatory setting
Both the Background Report and the EIR do not contain a complete and thorough overview and summary of the regulatory setting applicable to this section. Several agencies, regulations and ordinances have been excluded from this section of the EIR, such as CalGEM, CalOSHA, California Highway Patrol, Ventura County Environmental Health, California Department of Fish and Wildlife, US Coast Guard, US EPA, Regional Water Quality Control Board, State Water Resources Board, and many others.

This section should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that may affect mineral and petroleum resources.

- The EIR states that the Area Plans were “reviewed for policies and implementation programs specific to these areas that would potentially have impacts on the environment with respect to mineral and petroleum resources” and that “the 2040

General Plan would not result in substantive changes to Area Plan policies and implementation programs related to mineral and petroleum resources." This statement is unsupported and erroneous, as the North Avenue Area Plan has several policies that would be impacted by the General Plan, including (but not limited to):

- pg. 5 where the applicability of land use designations to oilfield activities is discussed and evaluated;
- pg. 9-10 and Appendix G which discuss the relation of transportation improvements and bike path expansion on the oilfield activities;
- pg. 11 which analyzes oilfield activities on the "general character" of the area; and so on...).

Contrary to the assertion in the EIR, the policies in the 2040 General Plan would have a significant impact on the North Ventura Avenue Area Plan and the EIR must include the Area Plans in the impact analysis.

- On page 4.12-9, the EIR states that Land Use Designation changes would result in potential changes to surrounding land uses near oil reserves. But the EIR does not quantify this impact. Neither the EIR nor the Background Report provide information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. As the EIR is anticipated to be completed prior to the County receiving the Regional Housing Needs Allocation number, the EIR simply does not have the data necessary to conduct the analysis required under CEQA to determine either where or what the full extent of potential impact on lands adjacent to or overlaying mineral reserves.
- The EIR provides only a vague description of the Land Use Designations that will exist under the 2040 General Plan, and vague statements of "buildout" allowing "relatively higher intensity" residential, commercial and industrial land uses. Neither the EIR nor the Background Report provide information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. The EIR contains no information regarding the amount, timing, and final anticipated buildout under the 2040 General Plan. While the lack of information may be due to the EIR being completed prior to the issuance of Regional Housing Needs Allocation numbers from the State, such vague and meaningless information does not meet the CEQA standard for analysis and determination of impacts.
- The EIR also has not analyzed or determined the indirect impacts on access to reserves. As residential and urban densities increase near or adjacent to mineral reserves, urban-mineral development compatibility conflicts increase. Reasonably foreseeable indirect impacts include nuisance complaints, theft, vandalism and attempted trespass on lands overlaying reserves.

As these conflicts increase, the County has historically placed restrictions and setbacks on lands overlaying reserves (for example, policies in the 2040 General Plan to expand existing setbacks on lands overlaying reserves). As the resulting setbacks and restrictions will hamper access to reserves and resources, the indirect impacts caused by the Land Use Designations in the 2040 General Plan must be evaluated and mitigation to reduce impacts must be considered.

Section 4.13

- Proposed Mitigation Measure NOI-1 recommends the creation of Policy HAZ-X which will require the installation of noise control measures, which “may include vegetation.” The EIR does not analyze the significant impact of this mitigation measure on Impact 4.9-6 (wildfire risk).

Vegetative noise reduction buffers are well-studied, and many reputable experts have developed planting and vegetation density guidelines that must be followed to actually create a measurable reduction in traffic noise. Unfortunately, these vegetative noise reduction buffers require density and distribution of brush that conflicts with the requirements for vegetation clearance in most Fire Codes. The EIR must evaluate the feasibility of this mitigation measure as written, including whether this mitigation measure conflicts with any existing County regulation or ordinance. This mitigation measure must also be fully analyzed for any and all impacts it will cause (such as increased wildfire risk).

CEQA guidelines provide the legal and administrative standards for all environmental impact analyses. The 2040 General Plan EIR does not meet CEQA standards on many levels. CoLAB sincerely hopes that the County will put forth a good faith effort to address and correct the issues identified not just in our comment letter, but in all comment letters received and will recirculate an EIR that meets all legal standards. Our shared goal is a strong 2040 General Plan that supports Ventura County’s agricultural community, its residents, and long-term economic stability.

Sincerely,



Louise Lampara
Executive Director

Attachment

Figure 3-7: North Ventura Avenue Area Plan (source: Appendix B: Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020)

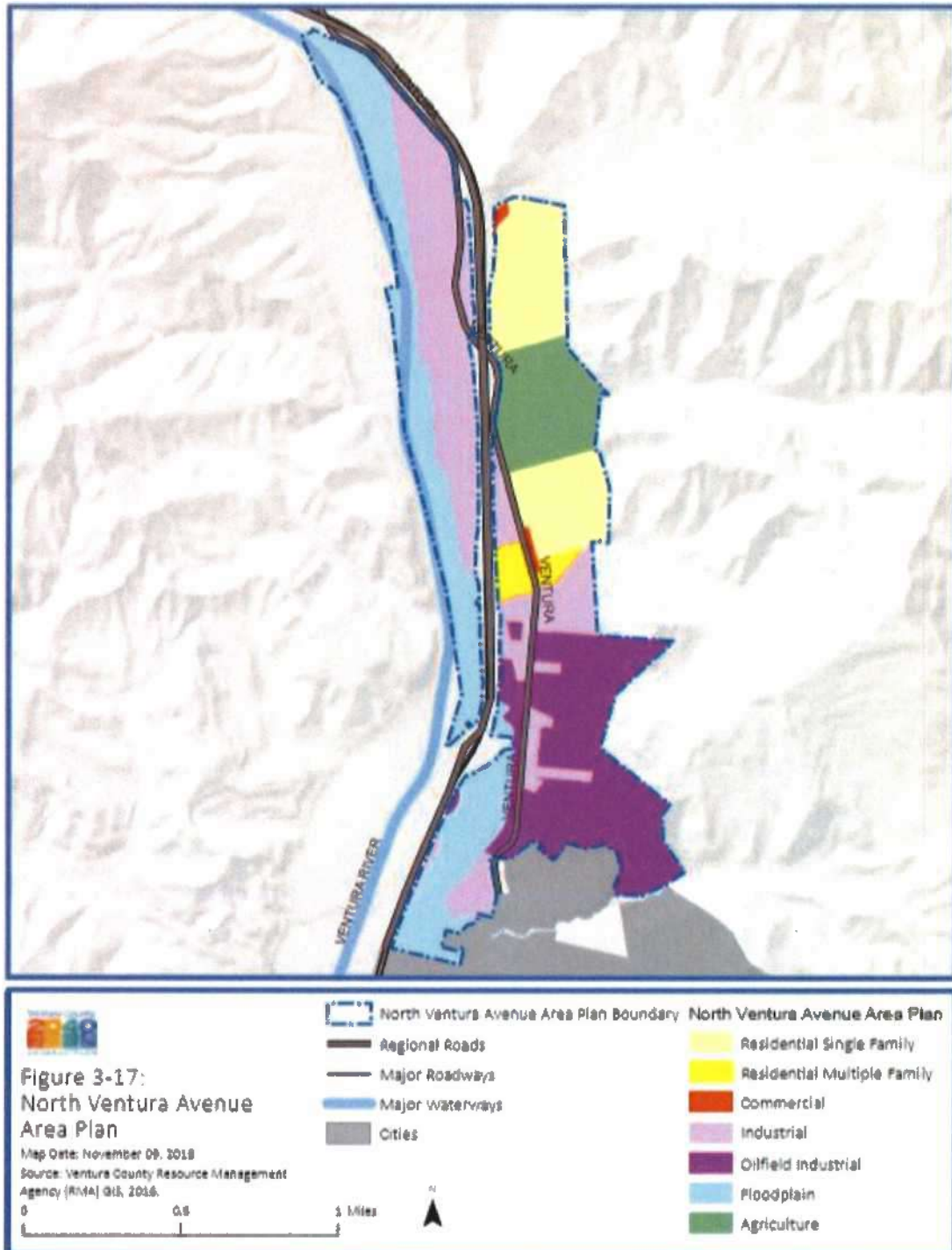
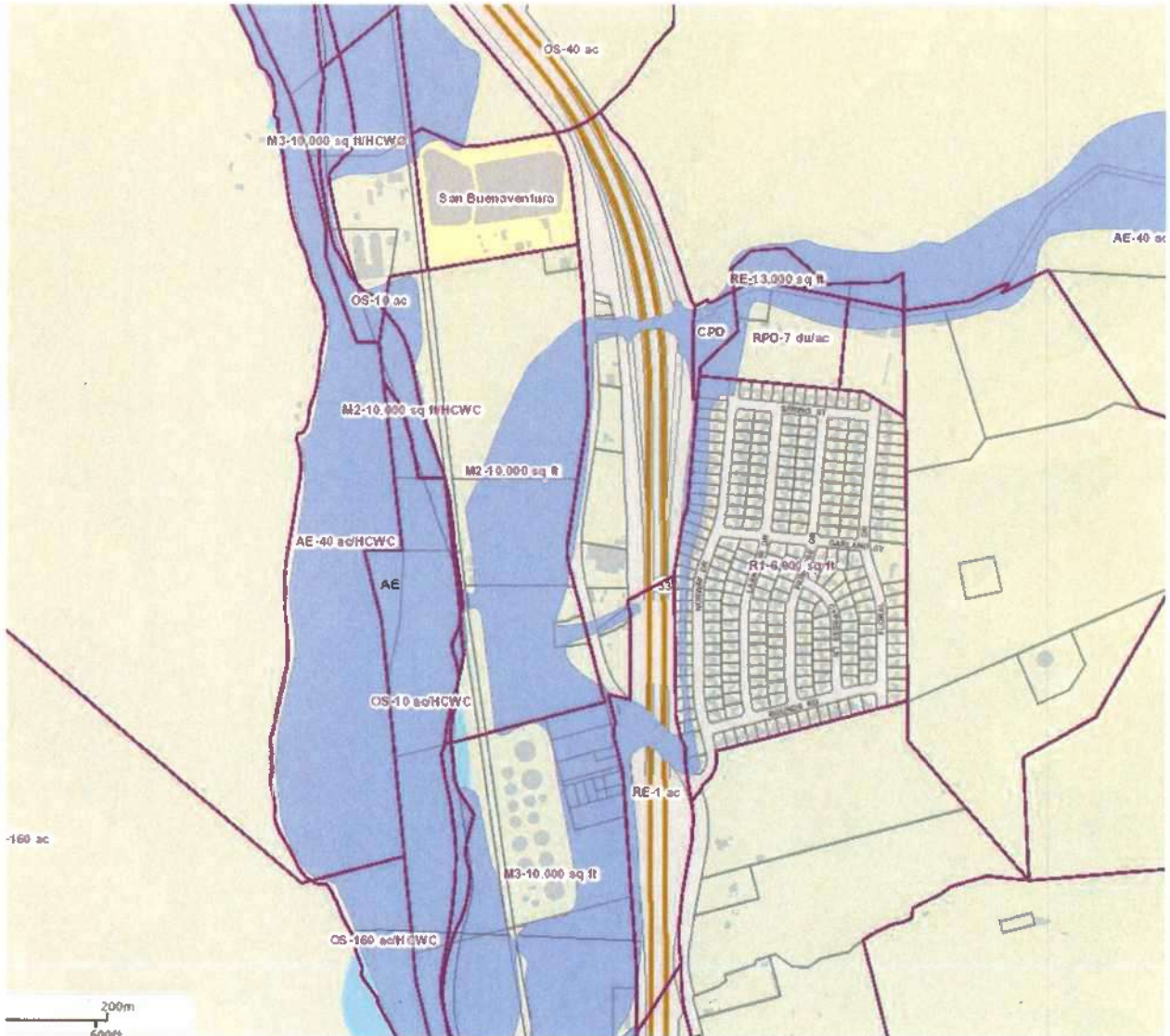


Figure 1: Overlay of flood hazard zones (blue/purple shading) and industrial zoned parcels (as labeled) from Ventura County GIS data (source: <https://maps.ventura.org/countyview/>)



Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

FEB 25 2020

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

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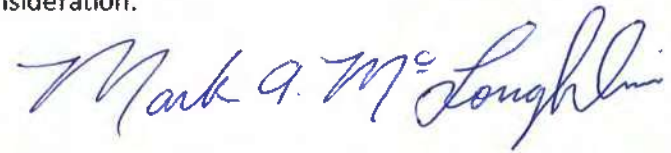
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I appreciate your consideration.

A handwritten signature in blue ink that reads "Mark A. McLaughlin". The signature is written in a cursive style with a large, stylized initial "M".

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

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A handwritten signature in blue ink that reads "Kelly A. McLaughlin". The signature is written in a cursive style with a large, looped initial "K".

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800 South Victoria Avenue, L#1740
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Toril M-Laughd Raymond

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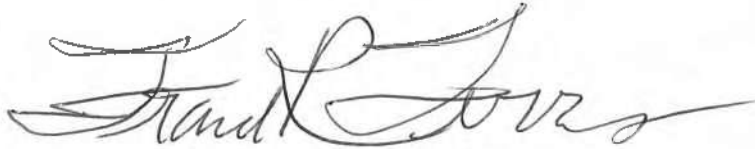
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I appreciate your consideration.

A handwritten signature in black ink, appearing to read "Frank L. Jones". The signature is written in a cursive, flowing style with a long horizontal tail stroke extending to the right.

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800 South Victoria Avenue, L#1740
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Marg McLaughlin Feius

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

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A handwritten signature in blue ink, reading "Mavis L. McLaughlin". The signature is written in a cursive style with a large, stylized initial "M".

LBTH INC

5574-B Everglades

Ventura, CA 93003

(805) 642-6881

February 20, 2020

FEB 25 2020

Attn: RMA Planning Division
General Plan Update
800 S. Victoria Avenue, L#1740
Ventura, CA 93009-1740

Dear County of Ventura:

Thank you for inviting comments on the EIR. I am an engineer by trade and have been an operator of LBTH oil field for over 30 years. My experience and knowledge of the oil and gas industry conflicts with critical conclusions in the EIR and I implore the County to revisit the data sources that is being relied on to make major impacts on our County.

I refer you to Page 2-54, the Market Outlook forecasted price per bbl which was pulled from old data taken at market low in 2017. Chapter 8, pages 8-74, "The County's oil reserves are estimated by the State Division of Oil and Gas and Geothermal Resources at 246,141,100 barrels". This calculation does not correctly apply the definition of "reserves", nor does the County discuss what types of data was included or excluded in obtaining that number.

Page 8-74, presents an incomplete and inaccurate description of how and why wells are idled. It implies that the entire industry "shuts down" when the market goes low. "Crude oil prices influence the level of production and well drilling activity in the County's oil fields. When prices are low, wells are placed in idle status and few or no new wells are drilled".

Additionally, on Page 2-54, "Production throughout the State had been declining since the 1980's, as oil reserves in the State have diminished. In recent years, the drilling of oil wells and well stimulation (including hydraulic fracturing), has been reduced in response to current oil prices". Page 8-74 "This level of production represents a 43% decrease in production from 1987 levels (15,659,398 barrels)".

However, Appendix D: GHJ applies base calculations that claim an anticipated future increase of over 1 million barrels of production, without providing references as to what data they have to support this potential increase in reserves and oil production.

Conflicting data and incorrect data in a report that is to govern the future. I urge you to stop and review for consistency and actual valid data before moving forward.

Sincerely,

A handwritten signature in cursive script that reads "R. W. Bowman" followed by a checkmark.

R W Bowman, PhD, PE

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:09 AM
To: Simmons, Carrie
Subject: FW: Please review
Attachments: J vavoni.pdf

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: John Vanoni <john@vanoniag.com>
Sent: Tuesday, February 25, 2020 5:31 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Please review

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

For your review,

--

John Vanoni, President

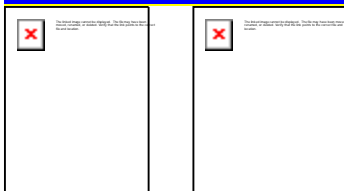
Vanoni Ag Construction, Inc.
Somis, CA 93066

Office: 805-988-8894

Fax: 805-988-8092

Cell: 805-368-2898

[Check out our website!](#)



Susan Curtis,

The EIR admits that increased fuel loads directly impacts wildfire risk. The County writes in the EIR that "managing fuel through activities such as vegetation removal and controlled burns, the County and other agencies would be directly reducing the chance of wildfire as well as fuels that would feed wildfires..."

However, the County failed to analyze the impacts of policies COS-3.2, COS-1.15, Implementation Program COS-H and Implementation Program COS-C and others which increase fuel load and vegetation that "feed wildfires."

The County has not conducted a full and complete analysis on the General Plan policies that will increase wildfire risk. Furthermore, they have failed to offer any mitigation to reduce this risk.

This needs to be addressed, revised and recirculated.

Thank you for your time

Sincerely John Vanoni
Vanoni AG. Construction Inc.

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:07 AM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: mike poland <polandml@hotmail.com>
Sent: Tuesday, February 25, 2020 5:17 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Board of Supervisors,

The more I investigate this document, the more problems become apparent to me.

With this proposal, Ventura County has failed to adequately analyze for impacts to farmland.

For example: the EIR has policies that will create and expand the bike paths and pedestrian trails throughout the County, which is a good thing. However, some of these proposed areas are in or adjacent to existing ag land and the County failed to analyze potential impacts on this ag land from these projects.

These projects will result in the direct loss of ag land in at least two ways. First, by paving a bike lane or path and second, the indirect loss of ag land through increasing public access to working ag areas which will encourage and increase theft, vandalism and trespassing.

In addition, as the public has more access to working farmlands, there will be an increase of complaints of odors, dust, noise, etc.

Ventura County agriculture produced about \$2 Billion in product in 2018 – it is vital to our local economy. The County must protect our local agriculture land from encroachment caused by increasing public access across these working farmlands. Please propose a mitigation measure to establish a set-back (on non-ag land) that prevents the construction of any bike path network or public trail on or adjacent to ag lands.

I look forward to hearing your thoughtful response.

Thank you,

Michael L. Poland

Sent from [Mail](#) for Windows 10

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:07 AM
To: Simmons, Carrie
Subject: FW: Comments re General Plan/EIR
Attachments: page1image1665632.png; page3image3743440.png; page3image3766944.png; page4image1774048.jpeg; page3image3744272.png; page4image1774048.jpeg; page2image1668752.png; page3image3766736.png

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From: Dave Chambers <davechambers911@gmail.com>
Sent: Tuesday, February 25, 2020 5:17 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments re General Plan/EIR

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This

mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time, ” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

February 19, 2020



[Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org](#)

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County’s Zoning Ordinance and the County’s minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an “Agricultural Mitigation Measure” through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor

Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the potential for conflicts would be minimal. This impact would be less than significant" (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim

urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as "programmatic" or "project", must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

In 2014, the California Court of Appeal stated in a ruling that "[T]he fact that this EIR is labeled a 'project' rather than a 'program' EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis

otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

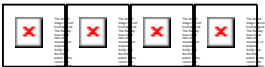
- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion.

But the County fails to analyze or propose mitigation measures to address this significant impact.



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

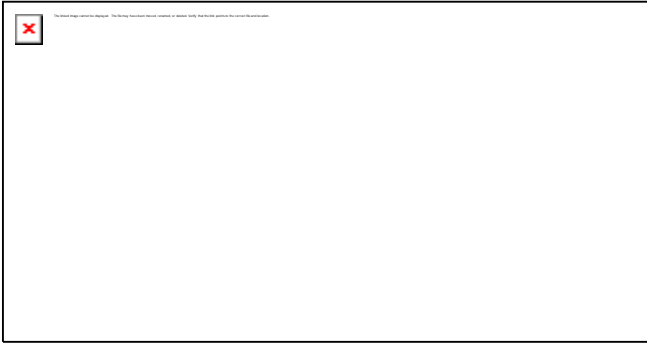
- 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
- 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and

- 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

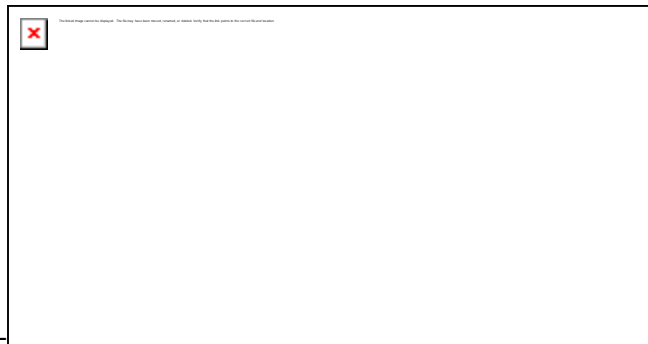
Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director



In support of this letter- Dave Holroyd Chambers



In support of this letter-

In support of this letter-
Beverly Chambers de Nicola

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:08 AM
To: Simmons, Carrie
Subject: FW: Response to General Plan/EIR Comments

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Dave Chambers <davechambers911@gmail.com>
Sent: Tuesday, February 25, 2020 5:19 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Response to General Plan/EIR Comments

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

800 South Victoria Avenue, L#1740

Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

Laura McAvoy

I support this letter-
Dave Holroyd Chambers

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:09 AM
To: Simmons, Carrie
Subject: FW: Ventura County general plan and climate change

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division P. (805) 654-2497 | F. (805) 654-2509
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-----Original Message-----

From: Geoffrey Dann <gdann@mac.com>
Sent: Tuesday, February 25, 2020 9:11 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County general plan and climate change

Ms Curtis -

Others have written more thoroughly on this subject than I can, so I am just adding my voice.

Ventura County should be a national leader to mitigate the effects of climate change, to stop or reverse climate change, to move us to long-term sustainable ways of life, to reverse the last century of "better living through chemistry".

Ventura County has abundant natural resources and human resources to make these things happen.

thanks

Geoffrey Dann

184 N Wake Forest Ave, Ventura 93003

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:10 AM
To: Simmons, Carrie
Subject: FW: Comments on County General Plan/EIR

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Edward Chambers <echambers41@gmail.com>
Sent: Tuesday, February 25, 2020 9:44 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on County General Plan/EIR

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.

2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.

3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."

4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.

5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,

Edward Chambers, MD

Simmons, Carrie

From: Keith Barrow <kfbarrow@gmail.com>
Sent: Tuesday, February 25, 2020 6:30 PM
To: General Plan Update
Subject: General Plan Update
Attachments: EIR Letter- final.pdf

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually

impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely,

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Tuesday, February 25, 2020 8:38 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

You have a NEW Comment

Name:

Thomas L Erickson

Contact Information:

tomatbob@yahoo.com

Comment On:

proposals

Your Comment:

Please ensure that all flaring and venting in all new oil wells is prohibited, except in cases of emergency or testing purposes. Thank you.



February 27, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Copy sent via email: GeneralPlanUpdate@ventura.org

SUBJECT: Ventura County 2040 General Plan (SCH # 2019011026); Draft Environmental Impact Report (EIR)

Dear Ms. Curtis:

Thank you for including the Department of Conservation's Division of Mine Reclamation (Division) in the environmental review process for the Ventura County 2040 General Plan Draft EIR. The project as described in the Draft EIR proposes to update the County of Ventura's 2040 General Plan and will identify the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including but not limited to land use, climate change, agriculture, transportation, hazards, public facilities, health and safety, environmental justice, and resource conservation.

The Division has review responsibilities associated with lead agency implementation of the Surface Mining and Reclamation Act of 1975 (SMARA; Public Resources Code [PRC] Section 2710 et seq.). SMARA provides a comprehensive surface mining and reclamation policy to assure that adverse environmental impacts are minimized, and mined lands are reclaimed. The Division's primary focus is on existing surface mining operations and the return of those mined lands to a usable and safe condition while giving consideration to environmental and recreational values; however, the Division also addresses issues related to abandoned (pre-1976) legacy mines.

The Division has reviewed the subject Draft EIR pursuant to the California Environmental Quality Act (CEQA) and State CEQA Guidelines and offers these comments.

1. The Division recommends editing Section 1.4: Lead, Responsible, and Trustee Agencies (Page 1-5) from, "...the Department of Conservation, which has responsibility for approving mining Reclamation Plans..." to "...the Department of Conservation, which has responsibility for reviewing and commenting on surface mine Reclamation Plans...", as this better reflects the Division's role and SMARA statutes (PRC Section 2772.1).

2. The County should consider updating surface mining ordinances, which were last certified by the State Mining and Geology Board on November 10, 1999. As a result of Assembly Bill 1142 and Senate Bill 209, significant statutory changes to SMARA went into effect January 1, 2017. These changes provided updates to the statutes governing approval of reclamation plans and financial assurances. Additionally, during the recent Lead Agency Review and Assistance (LARA) Program review, the Division recommended the County update their surface mining ordinance.

PRC Section 2774(a) states that "[E]very lead agency shall adopt ordinances in accordance with state policy that establish procedures for the review and approval of reclamation plans and financial assurances and the issuance of a permit to conduct surface mining operations... [T]he ordinances shall establish procedures ...to ensure that the ordinances continue to be in accordance with state policy." Additionally, PRC Section 2757 states that the SMARA statutes "shall be used as standards by lead agencies in preparing specific and general plans, including the conservation and land use elements of the general plan and zoning ordinances."

Please include the Division on the distribution list for this project and send the Division any subsequent project documents (e.g., hearing notices or supplemental environmental documents), as well as a copy of the certified final Environmental Impact Report, to the address below, attention to Carol E. Atkins, Division of Mine Reclamation.

If you have any questions, please contact either of us at (916) 323-9198.

Sincerely,



Carol E. Atkins, Manager
Environmental Services Unit



Paul Fry, Manager
Engineering and Geology Unit

cc (sent by email):

State Clearinghouse (state.clearinghouse@opr.ca.gov)

Department of Conservation, Office of Legislative and Regulatory Affairs
(OLRA@conservation.ca.gov)



The voice of business since 1949!

VCEDA's Mission Statement: To advocate for policies, legislation and programs that stimulate business and a vital economy as the foundation for a vibrant quality of life in Ventura County.

FEB 24 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

On September 10, 2019, over the objection of the Ventura County Economic Development Association (VCEDA), your board voted 3-2 against taking a closer look at how new policies and programs proposed within the new General Plan will impact our regional economy and Ventura County residents. They voted to limit the economic analysis to only a handful of programs and solely on their impact to County departmental budgets – which is in no way a complete impact analysis.

In the months that have followed that decision, numerous additional policies and programs have found their way into the draft document – all proposed by members of the Board of Supervisors, and all without vetting through the advisory committees meant to provide oversight and input into revising the County's General Plan. As has been the case throughout this process, their impacts lack adequate study.

VCEDA had hoped that the draft General Plan's DEIR would address this lack of analysis. Unfortunately, that is not the case. Therefore, **we respectfully request that the DEIR be re-circulated so that further study and analysis might take place to address the following comments:**

3.0 Project Description

3-4 Proposed General Plan Organization

The DEIR explains that the GPU establishes 15 new land use designations, the DEIR states, without support or analysis, that these designations "would be consistent with land uses and densities/intensities allowed under the current (2018) zoning designations for each affected parcel." But what does this mean? That the existing zoning designations are at or below the densities and intensities allowed by the new GPU designations? Or that the new GPU designations would not permit any additional density or intensity than the existing zoning designations? These are two wholly different things and the project description is so vague that a reader cannot determine which is occurring.

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Darren Kettle, VC Transportation Commission
Captain Kirk Lagerquist, Naval Base Ventura County
Bruce Stenslie, EDC-VC

Relatedly, on page 3-5, the DEIR states that “minimum” lot sizes permitted in the zoning code will be maintained, but makes no mention of maximum lot sizes.

There are statements throughout the DEIR that allude to the GPU permitting “relatively higher intensity residential, commercial, mixed use, and industrial land uses within the Existing Community area designation and the Urban area designation” – yet nowhere in the Project Description is this expressly explained. How intense and dense? Where? What amount additional buildout will be accommodated?

3-6 and 7 Land Use Planning and Growth Management

It is apparent that the County is seeking to look to its cities to accommodate growth. This approach will necessarily increase environmental impacts within the cities and no analysis of these reasonably foreseeable potential impacts is included in the DEIR.

3-11 Housing Element

The use of the existing Housing Element as a “placeholder” is a significant flaw in the Amendment and DEIR analysis. The County is well aware that the increase in the RHNA allocation that is known to occur will significantly affect most of the other elements of the General Plan and the environmental analysis.

Not only does the decision to exclude the pending housing element result in improper piecemealing (see comment above), inclusion of a “placeholder” element results in a meaningless, inaccurate, and incomplete Project Description.

3-19 Land Use Diagram

Project Description implies that the new General Plan designations will increase density and intensity, but provide no details as to where or by how much. The DEIR reads, “Under the 2040 General Plan relatively higher intensity residential [], commercial [], mixed use and industrial land use designations would apply to approximately 1.2 percent of land in the unincorporated county.” How much higher? Where? Figures 3-2a and 3-2b are at such a large scale, it is impossible to tell where the designations are, let alone how they differ from what currently exists or in what locations additional density and intensity will be permitted. How much more development can occur as a result of these changes and what will be the potential impacts of this change? A reader has no way of knowing.

4.0 Environmental Analysis

4-1 Approach to Environmental Analysis

CEQA does not permit an agency to bury required information, that forms the cornerstone of the analysis, in a 1,000+ page appendix. The DEIR says, “The reader is referred to the Background Report for all other setting information.” Yet the BR is more than 1,000 pages long, not counting any appendices, and is not organized in a way that coincides with the chapters of the DEIR.

Background Report 3-89 to 3-90 and 3-97

Improper segmentation. Concedes that the County cannot meet post 2020 housing growth needs and commercial growth needs (see also BR 3-134), concedes that “up-zoning” would be required to meet SCAG plan housing obligations. DEIR is devoid of any analysis regarding this apparent conflict. The “up-zoning” needs to be analyzed as part of this project and this analysis.

As noted elsewhere, the underlying development potential methodology utilizes outdated (2014) RHNA numbers which effectively masks the disparity between “potential” and actual development that will take place through horizon 2040. (Burying the magnitude of land use impact)

4.11 Land Use and Planning

4.11 Thresholds of Significance

Failure to analyze internal inconsistency, or consistency between the updated GP and the existing Area Plans that are not amended. The DEIR states that Threshold 25(1) of the ISAG asks whether the project is consistent with the community character policies and development standards in the Ventura County General Plan goals, policies and programs, or applicable Area Plan. The DEIR goes on to explain that this threshold will not be considered in this DEIR because “this draft EIR is an evaluation of an update to the Ventura County General Plan goals, policies and programs, and Area Plans under which future projects would be evaluated.” However, failing to analyze this threshold means that there is no analysis of internal consistency. The Project Description chapter of the DEIR explains that very few changes are made to the Area Plans, therefore the Land Use & Planning chapter of the DEIR should consider whether the changes in the land use designations are consistent with all policies that are unchanged. See comment above regarding the Ventura Avenue Plan’s protection and expansion of oil field uses.

4.11-3 Issues Not Discussed Further

Failure to analyze internal inconsistency, or consistency between the updated GP and the existing Area Plans that are not amended. Relatedly, regarding the unchanged Area Plans, the DEIR states, without support or analysis, that “[t]he Area Plan policies and implementation programs related to these issues are consistent with the 2040 General Plan policies and implementation programs, which are addressed in the following impact discussions. Therefore, the environmental effects of the Area Plan goals and policies are not addressed separately in this section.”

4.11-4 2040 General Plan Policies and Implementation Programs

Improper segmentation. Policy LU-1.3 states that the County will work with SCAG “to direct state regional housing needs allocations predominantly to cities...” What does this mean? The RHNA methodology is already available and estimates a significant number of new units to be accommodated within the unincorporated county. Further, cities are likely to push back on their significantly higher RHNA allocations, and push those units out to the County such that the final number will likely be even greater. For all these reasons, and the ones identified in our comments on the Project Description, the entirety of the GPU should be paused until the RHNA allocations are finalized.

See also comments above regarding Background Report pp. 3-89 to 3-90, 3-97.

4.11-18 Impact 4.11-1

Failure to analyze the land use impacts (and all other impacts) associated with the new land use designations. GP 2040 creates 13 new land use categories (or 15 – see below comment regarding inconsistency within the DEIR on the Project Description) with distinct development standards—yet there is no real analysis of how the installation of 13/15 new use classes that did not previously exist would not create a conflict with uses established pursuant to the previous 6 use classes under GP 2005. Notably, the DEIR concedes that the new land use classifications will result in development at a higher intensity in locations where residential, commercial, and industrial uses exist. Yet there is no explanation of how this intensification will be accomplished to avoid incompatibility. (As has been the case throughout the DEIR, Section 4.11 consists of a laundry list of LU policies, but, when it comes to explaining the role those policies play in avoiding or mitigating a potential impact (e.g. incompatible uses), the DEIR fails to provide that critical explanation/analysis)

4.11-19 Impact 4.11.1

Vague and inconsistent project description. The analysis describes the GPU as establishing 13 new land use designations, but the Project Description says there are 15 (see page 2-6).

4.11-21 Impact 4.11-1

Vague and inconsistent project description – unsupported conclusions in the analysis regarding compatibility. The DEIR states that “Policies LU-4.1 and LU-4.2 would reduce incompatible land uses by specifying densities and/or intensities of allowed uses within each land use designation and maintaining continuity with neighboring zoning, land uses, and parcel sizes.” But neither of these policies do this, or specify densities or intensities in any way.

4.11-22 Impact 4.11-3

DEIR cannot conclude that the GPU is consistent with the RHNA when the GPU includes only a “placeholder housing element” and improperly segments the Housing Element and accommodation of the RHNA from its Project Description and the analyses contained in the DEIR. The DEIR states that “Implementation of the 2040 General Plan policies and programs listed above, coordination of the RHNA with housing element updates, and compliance with applicable regulations would ensure that development under the 2040 General Plan is consistent with the RHNA.” This essentially argues that the GP is consistent with the RHNA because the County will change the GP in the very near future to accommodate the RHNA. This is nonsensical. For all the reasons provided in our comments on the Project Description, the RHNA, which is imminent and the County’s own estimate will be released while the DEIR is out for public review in the month of February, accommodating the RHNA may likely require changing the designations identified in the GPU and the analysis of the same provided in this DEIR. This is exactly why CEQA prohibits improper segmentation of related projects.

4.14 Population and Housing

4.14-1 Regulatory Setting, Environmental Setting

DEIR excludes all relevant discussion regarding both regulatory setting and environmental setting, and instead forces a reader to find the information buried in the BR.

No discussion is provided regarding SB 330 (Housing Crisis Act of 2019).

4.14-6 through 8, Impact 4.14-1

See piecemealing comments above. This impact addresses the County's ability to accommodate its imminent RHNA allocation. The discussion explains how "it is anticipated that the County will have to identify additional land that would meet state standards for lower-income inventory site requirements" and that "identifying sufficient sites for this next [RHNA] cycle will be a challenge."

But the draft RHNA numbers are already available, and per the DEIR's text, will be finalized while the DEIR is out for public review. The RHNA sites should be identified and considered as part of this DEIR. Knowing that land will be imminently re-designated in the near future, as part of the Housing Element Update, makes the analysis in the DEIR meaningless.

6.0 Alternatives

6.6 Environmentally Superior Alternative

The Dense Cores Alternative is selected as the environmentally superior alternative. The analysis fails to consider whether this alternative is feasible given the land available for development in the Existing Community and Urban land use categories. It also fails to address the impacts on surrounding cities. Significant concentration of population and housing adjacent to existing cities has the potential to create significant effects in those cities. This is not considered.

As noted in this letter's introduction, given the breadth of impacts not studied, nor impacts with suggested mitigation measures, VCEDA respectfully requests a re-circulation and distribution of the DEIR in the hopes that additional analysis will address these deficiencies.

You may contact me directly if you have questions specific to the comments listed above, or if you require a more detailed analysis.

Sincerely,



Sandy E. Smith
VCEDA Policy Chair

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 10:17 AM
To: Simmons, Carrie
Subject: FW: Serious Environmental Concerns for Ventura County

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



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From: ormaybe@aol.com <ormaybe@aol.com>
Sent: Tuesday, February 25, 2020 9:50 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Serious Environmental Concerns for Ventura County

To: Susan Curtis, General Plan Update Manager
via email (susan.curtis@ventura.org)

RE: Action for Change in Changing Times Comment Letter on the *Draft Environmental Impact Report (EIR)* for the *County of Ventura Draft 2040 General Plan*

Dear Ms. Curtis,

Action for Change in Changing Times (ACCT) has reviewed portions of the draft EIR and have serious concerns with what we see as a lack of completeness, an entirely inadequate Climate Action Plan, and *a failure to recognize the role of the County as an oil and gas producer*. Lacking and needed are policies and environmental mitigations that ensure we do our share of addressing the climate crisis. On these issues the draft General Plan and the draft EIR, unfortunately, fail.

When this process started in 2015, Ventura County did not realize that we are on the front lines of the Climate Crisis. The current 2.6 degree Celsius rise in temperature in Ventura County is clearly an indicator of further catastrophic impacts that the County must take into account. Major wildfires, droughts, and analysis of climate impacts on our County demonstrate that a significant, if not the most significant, land use issue facing this county over the next 20 years is the climate crisis and how we respond through the planning process.

We could not find a clear indication in either of these documents of the total greenhouse gas (GHG) potential produced annually in the county. In fact, the role of the industry in this county appears to be hidden in the documents. On an annual basis what is the BTU value of the liquid and gas products extracted by our oil & gas industry? What is the GHG emission from the ultimate production and use of those fossil fuels?

On a planetary scale we need to plan now for the systematic and rapid phase out of oil and gas extraction and shift rapidly to development and use of cleaner renewable fuels -- on that the planet depends.

We cannot find a schedule within the county documents for the systematic and cost-effective winding down of this industry along with a just transition for our workers in the oil field, many of whom will be employed throughout the closing out of production and restoration of land. Others have skills that are directly transferable to clean industries of commercial and residential solar and wind energy.

In summary, ACCT finds the current county drafts unacceptable for planning over the next twenty years with too many unanswered issues in the draft EIR.

Respectfully,
Frank C. Bogner
10412 Boulder Ct
Ventura, CA 93004

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 10:30 AM
To: Simmons, Carrie
Subject: FW: better test

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: John Brooks <johnbrooks69@gmail.com>
Sent: Tuesday, February 25, 2020 10:29 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>; General Plan Update <GeneralPlanUpdate@ventura.org>
Subject: Fwd: better test



25 February 2020

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

susan.curtis@ventura.org, GeneralPlanUpdate@ventura.org

Request for a Comment Deadline Extension on the Draft Environmental Impact

Report for the County of Ventura Draft 2040 General Plan

Dear Ms. Curtis:

It has come to our attention that several prominent environmental groups are having difficulty reviewing the very complex and lengthy General Plan Update EIR and need additional time to prepare informed comments. CFROG Climate First: Replacing Oil & Gas supports those requests and proposes an extension of at least 45 days. To rush through this process would be a disservice to the community.

Sincerely,

John Brooks

President CFROG

Simmons, Carrie

From: John Brooks <johnbrooks69@gmail.com>
Sent: Tuesday, February 25, 2020 10:29 AM
To: Curtis, Susan; General Plan Update
Subject: Fwd: better test



25 February 2020

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

susan.curtis@ventura.org, GeneralPlanUpdate@ventura.org

Request for a Comment Deadline Extension on the Draft Environmental Impact

Report for the County of Ventura Draft 2040 General Plan

Dear Ms. Curtis:

It has come to our attention that several prominent environmental groups are having difficulty reviewing the very complex and lengthy General Plan Update EIR and need additional time to prepare informed comments. CFROG Climate First: Replacing Oil & Gas supports those requests and proposes an extension of at least 45 days. To rush through this process would be a disservice to the community.

Sincerely,

John Brooks

President CFROG

Simmons, Carrie

From: Chad Christensen <ccinsbv@gmail.com>
Sent: Tuesday, February 25, 2020 11:24 AM
To: General Plan Update
Subject: VenCo 2040 General Plan Update
Attachments: VenCo 2040 GP Update.docx

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Hello,

Please find attached a comment letter regarding the County of Ventura 2040 General Plan Update.

Best regards,
Chad Christensen
3173 Strathmore Drive
Ventura, CA 93003

February 25, 2020

Ventura County Resource Management Agency, Planning Division
ATTN Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L #1740
Ventura, California 93009-1740

County of Ventura Draft Programmatic Environmental Impact Report for the Draft 2040
General Plan Update

Dear Ms. Curtis,

The County of Ventura (County) is in a unique position to be updating the County's primary planning document through 2040 as the impacts of climate change are becoming more severe. The Draft Environmental Impact Report (DEIR) fails to recognize the true impacts of climate change already occurring. The County is already experiencing a 2.6°C increase in average temperature from historical records. We are soon to re-enter drought conditions following the driest February on record. We are still recovering from two of the state's largest wildfires in modern history. We must act now, and we must act boldly.

The DEIR fails to provide enough emissions reductions to meet, or meaningfully contribute to, the California state mandated climate goals. The DEIR fails to include a Climate Action Plan with measurable targets and goals to ensure County stakeholders are informed about progress, achievements and accurate analysis of shortcomings. Language used in the proposed 2040 General Plan update such as "encourage" or "support" rather than "require" or "mandate" is insufficient and meaningless to meet acknowledged greenhouse gas reduction targets.

The DEIR is based on a wholly inadequate inventory of county emissions. The inventory was conducted from top down rather than bottom up and fails to include, or even consider, a significant portion of present emissions. Studies published recently indicate significant under-assessment of greenhouse gases, especially methane, from current fossil fuel extraction and production sources that must be included in the DEIR analysis.

Because the County is one of the leading producers of fossil fuels in the state, and therefore in the nation, including fossil fuel facilities NASA documents as greenhouse gas "super emitters," the County must act now, and act boldly. Approval of the proposed DEIR would be a failure of the County's moral and fiduciary responsibility.

Therefore, to act responsibly, the County must:

- 1) Declare a climate emergency and direct all County government offices to incorporate climate change mitigation, to the extent feasible, in all activities,

- 2) Create a Climate Action Plan 2020-2040 with measurable targets and outcomes as a separate document from the General Plan update,
- 3) Set clear climate action goals and mandate enforceable climate policies based on the declaration of a climate emergency and Climate Action Plan 2020-2040, and
- 4) As part of the Climate Action Plan 2020-2040, set five-year interval targets beginning with 2025 to immediately begin the reduction of the County's contribution to the climate emergency.
 - a. Initial five-year (2025) emergency climate goals:
 - i. Begin the elimination of fossil fuel extraction and production within the County by immediately prohibiting operation of fossil fuel facilities within one-mile buffer zones of schools, public parks, mobile home parks, medical facilities, or any residential zones,
 - ii. Wind down discretionary oil and gas production by 10% per year to zero production in the County by 2030 starting with fossil fuel facilities within above one-mile buffer zones,
 - iii. Prohibit flaring and venting from any fossil fuel infrastructure before 2025,
 - iv. Implement a policy to coordinate with the California Department of Transportation (Caltrans) and the Ventura County Transportation Commission (VCTC) to cease all freeway, highway and road infrastructure expansion projects by 2025,
 - v. Implement a policy to coordinate with Caltrans and VCTC to use the existing 101 Freeway, Highway 126, and Highway 23/118 corridors to build light rail for inter-city and inter-county commuting by 2040,
 - vi. Implement a policy to expand existing rail infrastructure for multi-track capacity by 2040,
 - vii. Implement a policy requiring all public transportation (buses, shuttles, and all County vehicles) to be fully electric vehicles by 2030,
 - viii. Implement a County policy to prioritize walking and bicycling by connecting communities outside incorporated city limits with adequate walkways, bike lanes, and buffers from vehicle traffic,
 - ix. Implement a policy to coordinate with contracted refuse companies to divert all pre- and post-consumer food waste into the "green waste" stream for composting all County-derived food waste by 2025,

- x. Implement an agricultural policy requiring a transition to 100% regenerative farming including carbon sequestration and soil nutrient management plans by 2030,
- xi. Transition all small gas engines used in agriculture to electric models or diesel engines running on biodiesel produced from as locally-sourced waste vegetable oil as possible by 2030,
- xii. Implement a policy to transition all small, non-farm gas engines (i.e. blowers, mowers, trimmers, etc.) to electric models by 2025,
- xiii. Implement policies to facilitate distributed renewable energy generation and storage,
- xiv. Direct the County's Resource Management Agency to study the potential to repurpose existing gas infrastructure as conduit for undergrounding electrical and communication lines by 2025,
- xv. Direct the County's Chief Financial Officer to study the potential of public banking to finance County divestment from fossil fuels and investment in sustainable energy systems by 2025, and
- xvi. Implement a policy to include existing fossil fuel industry workers in the County's responsible transition to clean, renewable energy infrastructure.

Whatever price tag you want to envision for these proposals, it pales in comparison to the pending costs of sea level rise, soil degradation and crop failure, increased asthma and other heat-exacerbated medical conditions, and the shortsighted failures of free market economics and *laisse faire* County governance to deal with climate change. To delay action, to delay investment, will only cause greater harm and increased costs for us all.

Respectfully,

Chad Christensen
Ventura, CA

Simmons, Carrie

From: David Grau <dv.grau@gmail.com>
Sent: Tuesday, February 25, 2020 11:45 AM
To: General Plan Update
Subject: General Plan Update
Attachments: Taxpayers Assoc. Letter Gen Plan 2.24.pdf

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Dear Ms Curtis,

Please consider our comments related to the General Plan Update Draft EIR.

David Grau
President - VCTA



February 25, 2020

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, California 93009

via email: GeneralPlanUpdate@ventura.org

Re: General Plan Update Draft Environmental Impact Report Public Comments

Dear Ms. Curtis,

The Ventura County Taxpayers' Association (VCTA) is a non-partisan 501(c)(4) organization emphasizing issues that affect Ventura County. We inform taxpayers, promote the wise use of public funds, oppose waste, advise public officials regarding issues of concern to taxpayers and recommend positions that will best serve the taxpayers' interests.

Economic Vitality is a critical component of the County's future. Throughout the entire stakeholder process, Economic Vitality has been a crucial element in the General Plan process. It must be considered under every policy. In Section 3.2.1 Alternatives Report, Vision Statement and Guiding Principles, Economic Vitality is the second principle in the Vision Statement.

With this in mind, it is concerning that there is no real economic impact analysis included in the Draft Environmental Impact Report (DEIR) document. Many of these new policies and programs contain language that mandates the County spend local tax dollars. To compound this, several new policies and programs will likely have a negative impact on Ventura County's tax revenue and jobs and will result in increased costs to county residents. Creating policies without an understanding of how taxpayers will be affected is not only irresponsible, it is a bad faith gesture to taxpayers. It is imperative that the County conduct an economic impact analysis and incorporate it into the DEIR.

This ECONOMIC IMPACT ANALYSIS must include a breakdown of the fiscal implications of each policy and program on:

- Local TAX REVENUE as it relates to public safety, social services and education
- Direct and indirect JOBS
- OUT OF POCKET living expenses to Ventura County residents

All of the proposals in the General Plan document have major implications for taxpayers and I urge the Board to keep working people in mind as we look to our future.

David Grau

President, Ventura County Taxpayers Association

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 12:26 PM
To: Simmons, Carrie
Subject: FW: Climate change has environmental impacts!

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Lara Shellenbarger <info@email.actionnetwork.org>
Sent: Monday, February 24, 2020 4:59 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

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Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate change is THE existential threat, not just to the United States, but to the human race. Every level of government must take this into account and do what is necessary to stop the emission of carbon dioxide and methane. And to encourage the use of energy sources like solar, wind, and nuclear power. Specifically, it will be difficult, if not impossible, to reach a zero carbon economy without using nuclear power in a transition phase. There are modern nuclear powerplant designs that are much safer than coal and oil fired power plants. Government should encourage their deployment.

Brent Meeker

Lara Shellenbarger

meeker.lara@gmail.com

104 Catalina Dr

Camarillo, California 93010

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 1:01 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR comment

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Fred J Ferro <fferro@naicapital.com>
Sent: Tuesday, February 25, 2020 12:44 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR comment

ATTN: Planning Division

Thank you for your time in preparing this document and for receiving my comments. My name is Fred J. Ferro and I have serious concerns about areas related to our local oil and gas industry. The DEIR contains false and ill-advised policies affecting the local oil and gas industry without proper evidence and analysis.

The policy COS-7.4 mandates the electrically powered equipment be used for oil and gas exploration and production. The DEIR makes this mandate of the oil and gas industry but does not apply this mandate to other industries. First of all, that is blatant in its disregard of an industry that provides thousands of high-paying jobs and provides tax revenues that support vital community services and local education. This mandate that is unfairly targeted to oil and gas should be further analyzed for economic impacts.

Furthermore, preventing a permitted land use such as extraction of energy resources would be a public taking. The DEIR needs to correct this failure to recognize and analyze the public taking as a result of these policies.

These policies must be corrected and further studied is this document is to be considered complete. Upon further analyzing these issues, the document will need to be recirculated instead of rushed through. Similarly, more recent available County Ag Commissioners data could and should have been used for discussion of the impacts of proposed changes affecting the local agricultural industry.

Thank you for your time,

Fred J.Ferro

Fred J Ferro | Vice President

300 Esplanade Dr., Suite #1660, Oxnard, CA 93036
fferro@naicapital.com | CalBRE Lic # 00873828

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Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 12:11 PM
To: Simmons, Carrie
Subject: FW: Aera Energy CEQA comments - DEIR
Attachments: Aera Energy LLC - CEQA Comments on General Plan 2040 DEIR - 02-24-2020 Final.pdf

Importance: High

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Newell ML (Michele) at Aera <MLNewell@aeraenergy.com>
Sent: Monday, February 24, 2020 6:52 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; General Plan Update <GeneralPlanUpdate@ventura.org>
Cc: James MS (Michael) at Aera <MSJames@aeraenergy.com>
Subject: Aera Energy CEQA comments - DEIR
Importance: High

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Ms. Curtis

On behalf of Aera Energy LLC, please see the attached letter presenting additional comments on the General Plan 2040 Draft Environmental Impact Report. Please ensure that these comments are made part of the record of proceedings.

If you have questions, please reach out to Michael James, Aera's Senior Counsel. His contact information is on the letter and he is also cc'd on this e-mail. Thank you.

Michele Newell
Public Affairs Specialist
Aera Energy LLC



Office - 805-648-8202

FAX – 805-648-8205

MLNEWELL@AERAENERGY.COM

www.aeraenergy.com



February 24, 2020

VIA ELECTRONIC MAIL

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Re: Comments on Ventura County 2040 General Plan Draft Environmental Report (State Clearinghouse No. #2019011026)

Dear Ms. Curtis:

On behalf of Aera Energy LLC ("Aera"), thank you for the opportunity to review and comment on the Draft Environmental Impact Report prepared for the Ventura County 2040 General Plan Update ("DEIR"). Unfortunately, after reviewing the DEIR, we find it deficient in myriad ways and we respectfully request that the DEIR be significantly revised and recirculated, as required by the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq) ("CEQA") and the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15000 et seq.) ("CEQA Guidelines"). Given the DEIR's failure as an informational disclosure document and its failure to identify and impose all feasible mitigation measures, the DEIR, in its current form, cannot support approval of the County's proposed update to its current General Plan ("2040 General Plan"). The DEIR's legal deficiencies must be cured and it must be recirculated prior to any approval of the 2040 General Plan.

Aera is the largest onshore oil and gas producer in the County of Ventura ("County"), with oil and gas operations covering approximately 4,300 acres located largely in unincorporated areas northwest of the City of Ventura. Aera and its forerunner companies have been actively producing crude oil in the County since the 1920s. Aera is actively involved in the local County community, and is a longtime member of both the Chamber of Commerce and the County Economic Development Association. As a mineral resource owner, mineral resource lessee and a production operator in the County, Aera will be directly and substantially affected by the adequacy of environmental review undertaken in support of the 2040 General Plan as well as implementation of the 2040 General Plan.

I. CEQA STANDARD OF REVIEW

Public agency determinations as to the cause, effect, and significance of environmental impacts must be supported by substantial evidence. (Pub. Resources Code, § 21168.) A public agency abuses its discretion and fails to proceed in the manner required by law when its actions or decisions do not substantially comply with the requirements of CEQA. (Pub. Resources Code, §§ 21168, 21168.5.) An agency's application of an erroneous legal standard in making a CEQA determination also constitutes a failure to proceed as required by law. (*City of San Diego v. Board of Trustees of Cal. State University* (2015) 61 Cal.4th 945, 956.) Whether an environmental impact report ("EIR") fails to include the information necessary for an adequate analysis of an environmental issue is a question of law, and when reviewed by the courts, the courts do not defer to an agency's determinations. (*Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102 ["whether an EIR is sufficient as an informational document is a question of law subject to independent review by the courts"].) Failure to comply with the basic substantive requirements of CEQA is necessarily prejudicial error, requiring the decertification of any EIR and vacation of any project approvals adopted in reliance upon the same. (*North Coast Rivers Alliance v. Kawamura* (2015) 243 Cal.App.4th 647, 671.)

While program EIRs are necessarily broader in scope than project-level EIRs, they must still adhere to CEQA's requirements—significance determinations must still be supported by substantial evidence, program EIRs must still apply the correct legal standard to CEQA determinations, and program EIRs must still include all information necessary for an adequate analysis of environmental effects. (*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 431.) Use of a program EIR does not permit a lead agency to defer an analysis of reasonably foreseeable significant environmental impacts to a later stage of review to avoid addressing those impacts in the program EIR itself. (State CEQA Guidelines, § 15152(b).) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 109.)

Finally, where significant new information is added to an EIR after notice of public review has been given, but before final certification of the EIR, the lead agency must issue a new notice and recirculate the EIR for additional comments and consultation. (Pub. Resources Code, § 21092.1; State CEQA Guidelines, § 15088.5.) Recirculation is required when the addition of new information deprives the public of a meaningful opportunity to comment on substantial adverse project impacts or feasible mitigation measures or alternatives. (State CEQA Guidelines, § 15088.5(a); *Laurel Heights Improvement Association v. Regents of University of California* (1993) 6 Cal.4th 1112, 1130.)

II. GENERAL COMMENTS

A. Improper Piecemealing and Project Segmentation.

As discussed in additional detail below, the DEIR improperly segments its analysis of the County's 2040 General Plan from the pending update of the County Housing Element, and also improperly piecemeals analysis of the 2040 General Plan's implementation actions. CEQA makes it clear that public agencies must analyze the "whole of an action" that may result in a direct or reasonably foreseeable indirect impact. (State CEQA Guidelines, § 15378(a); see also *Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora* (2007) 155 Cal.App.4th 1214.) A public agency may not divide a single project into smaller individual subprojects to avoid responsibility for considering the environmental impact of the project as a whole. (*Orinda Association v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171.)

As the County is aware, the California Department of Housing and Community Development ("HCD") together with the Southern California Association of Governments ("SCAG") will issue a new Regional Housing Needs Allocation ("RHNA") for the County and the cities within the County later this year. The new RHNA will increase the housing needs allocation for the County significantly. As a result, almost every element of the General Plan, as amended, will be out of date once the new numbers are finalized. Land use designations established by the 2040 General Plan will need to be revised nearly immediately to accommodate the RHNA, which will have ripple effects through the DEIR's analyses of air quality emissions, greenhouse gas emissions, and traffic. For example, ignoring the imminent RHNA means that the trip and vehicle miles traveled estimates underpinning the DEIR's traffic analysis do not reflect the additional traffic created by the RHNA, both within the unincorporated areas of the County and within the region at large.

Similarly, beyond the RHNA, the Governor and the State Legislature have advanced significant new legislation intended to increase housing supply opportunities and facilitate the approval of new development by streamlining the housing development process and providing for limited review of developments that otherwise comply with local regulations. This recently adopted legislation and pending legislation will result in an increase in the production of new housing, potentially even beyond the RHNA projections. Thus, the County must table consideration of its 2040 General Plan until the County is in a position to update its Housing Element as part of that undertaking.

In addition to improperly engaging in segmentation in the context of the RHNA, the DEIR ignores the reasonably foreseeable implementation actions that will follow adoption of the 2040 General Plan, including, but not limited to, the adoption of a Zoning Code Update. While the DEIR generically describes the relationship between general

plans and zoning codes, it does not explain how the County's Zoning Code will be updated as a result of adopting the 2040 General Plan. Required zoning code updates resulting from the 2040 General Plan must be analyzed now, as part of this DEIR. Excluding reasonably foreseeable, let alone required, implementation actions from the DEIR's analysis constitutes a prejudicial error. (*McQueen v. Board of Directors* (1988) 202 Cal.App.3d 1136, 1144.)

To address both of these improper segmentation issues, the Project Description for the 2040 General Plan should be revised to be complete, and the DEIR analyses should be revised to assess and disclose the impacts of the entire "whole" of the 2040 General Plan.

B. Impermissibly Vague Project Description.

EIR project descriptions must be accurate, stable, consistent, complete, include all components of a proposed project, and include all foreseeable future activities that are consequences of the project to be approved. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199.) As described more fully below, the DEIR's Project Description does not meet this standard. In fact, it fails to even identify the location and buildout of the 15 new land use designations.¹ Furthermore, policies established by the General Plan are not identified or described with any level of specificity. The complete failure to provide a project description consistent with CEQA's procedural mandates unfortunately undermines each and every analysis contained within the DEIR. As such, the Project Description must be revised to include these details, the DEIR's impact analyses must likewise be revised and the DEIR must be recirculated.

C. Failure To Provide Adequately Detailed Analyses

As more fully discussed below, many sections of the DEIR include surprisingly little technical analysis or analysis of the feasibility of mitigation measures. The DEIR purposefully downplays the effect of numerous proposed mitigation measures and routinely defaults to a finding of significant and unavoidable impacts without any real analysis showing that the County considered all feasible mitigation measures and adequately analyzed whether impacts could be reduced. This, in effect, defers real analysis to future project level EIRs and is inconsistent with the goals of a program level EIR, which is to limit the need for future environmental analysis to the extent reasonably possible. (See CEQA Guidelines, § 15152(b); see also *Vineyard Area Citizens, supra*, 50 Cal.4th at p. 431 [program EIRs must still meet CEQA's mandates].)

¹ We also note that in some places, the DEIR states that the 2040 GPU only establishes 13 new land use designations, as opposed to 15. This inconsistency further underscores the DEIR's failure to provide an accurate and stable project description, consistent with CEQA's mandates. (Compare, e.g., p. 4.11-18 [describing 13 new land use designations] to p. 2-6 [describing 15 new land use designations].)

D. The DEIR Presumes The Imposition of Goals, Policies, Programs and Mitigation Measures That Are Legally Infeasible

Finally, as will also be more fully explored below, several goals and policies discussed in the DEIR and several mitigation measures proposed in the DEIR suffer from a variety of legal infirmities. Several goals and policies, if imposed, impair vested property rights and effectuate a taking under federal and state constitutional standards. Others are preempted by superior state law.

III. DETAILED COMMENTS

Aera's specific and detailed comments on the DEIR's individual chapters and sections are set forth below.

A. Introduction/Executive Summary

Page 1-2: The DEIR makes generic significant and unavoidable impact findings that should not be relied upon to permit future streamlining. The DEIR explains that subsequent development activities will be evaluated to determine whether they will result in "effects not within the scope of the program DEIR, including new or more severe significant impacts than identified in the project DEIR." Where subsequent activities will not result in more severe impacts, "additional environmental documents may not be required." Yet the DEIR vaguely claims myriad significant and unavoidable impacts, which could lead to later claims that projects "fall within the scope" of the program EIR because they too will result in significant impacts. This provides an avenue for the County to avoid project-level analysis, based on general and vague significant and unavoidable impact findings, unsupported by substantial evidence, in the DEIR. If the 2040 General Plan DEIR is truly intended to provide future streamlining for environmental impacts at the project level, the analyses must be expanded, all feasible mitigation measures identified, and determinations revised to rely upon and cite to substantial evidence. Such revisions require recirculation. (State CEQA Guidelines, § 15088.5.)

Page 1-4: The DEIR includes a biased and incomplete description of "areas of known controversy." The DEIR states that the key areas of concern identified during the DEIR Notice Of Preparation ("NOP") process "focused on two primary areas of concern: (1) climate change and greenhouse gases; and (2) the effects of continued oil and gas extraction...." But of the comments included in Appendix A, fewer than half focused on these issues exclusively.

Page 1-5: The DEIR presents an incomplete list of responsible and trustee agencies. The DEIR does not identify the California Geologic Energy Management

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Division of the California Department of Conservation ("CalGEM") or the California Coastal Commission as responsible agencies. As explained above, the imminent Housing Element update should also be provided as part of the 2040 General Plan, and as a result, HCD should also be identified as a responsible agency. Trustee agencies identified in the DEIR should at least include the State Lands Commission, the California Department of Fish and Wildlife, the California Department of Parks and Recreation, and the Ventura County Air Pollution Control District, as each of these agencies has jurisdiction over resources affected by the 2040 General Plan. (State CEQA Guidelines, §§ 15381, 15386.) Identification of proper responsible and trustee agencies affect whether an EIR undergoes the required and proper consultation processes. Failure to do so results in a failure to proceed in the manner required by law. (Pub. Resources Code, §§ 21168, 21168.5.)

Page 2-11: **The DEIR relies on erroneous growth projections.** As discussed above, the growth projections identified in the DEIR will be at odds with the imminently forthcoming RHNA housing numbers assigned to the County and the region (the County will be obligated to produce *more* housing stock). As a result, the assumptions underpinning the DEIR's analyses will be inaccurate almost immediately. This is particularly concerning given that the DEIR's assumptions will be inaccurate because they *underestimate* growth from 2020 through 2040.

Page 2-12: **Setting.** The cross-reference to the Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020 (hereinafter, "Background Report") makes following the setting discussion in the DEIR cumbersome. A summary of the Background Report's setting discussion should be included in the DEIR.

Page 2-14: **Areas of Controversy.** Oil and gas production and the secondary effects of continued operations is highlighted as an area of controversy for many of the sections of the DEIR. However, many of the alleged controversial effects are the result of the County policies proposed to require the use of pipelines in oil and gas operations and not the existing operations themselves.

B. Project Description

Page 3-1: The DEIR's Project Description impermissibly relies on a separate 1,000+ page appendix. EIRs must include an accurate, stable, and consistent description of the Project. (State CEQA Guidelines, § 15124.) Here, the 2040 General Plan provides the planning and development blueprint for the entirety of the County – yet the DEIR's Project Description is a scant 23 pages. For any real details, a reader is forced to parse through the more than 1,000 page Background Report, or the draft 2040 General Plan itself. But an EIR cannot rely on information that is not either included in the document or described in sufficient detail. (*Vineyard Area Citizens, supra*, 40 Cal.4th at p. 442.). An EIR should be written in a way that readers are not forced “to sift through obscure minutiae or appendices” to find important components of the project or analysis. (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 659.) Instead, CEQA contemplates that referenced documents be summarized in the text of the EIR.

Pages 3-4 through 20: The DEIR's Project Description is impermissibly vague. The DEIR's description of the 2040 General Plan is ambiguous and vague on a number of key points. Without these details, it is impossible to adequately assess the 2040 General Plan's potentially significant impacts. For example:

- The Project Description alternatively explains that the 2040 General Plan establishes either 13 or 15 new land use designations. (Compare, e.g., p. 4.11-18 [describing 13 new land use designations] to p. 2-6 [describing 15 new land use designations].)
- It is unclear to what extent these new designations will allow for more development than is presently allowed under the General Plan and Zoning Code. The DEIR states on the one hand that these designations “would be consistent with land use densities/intensities allowed under the current (2018) zoning designations for each affected parcel,” but then, on the other hand, explains that the new designations will permit “relatively higher intensity residential, commercial, mixed use, and industrial land uses.” (Compare pp. 3-4, 3-19, 4-2 [2040 General Plan will permit higher intensity development] with p. 3-4 [2040 General Plan will permit uses consistent with current zoning].)
- The Project Description explains that the 2040 General Plan establishes a wholly new land use designation for parks and recreational facilities, not currently permitted by the Zoning Code, but then also states that this designation will not be assigned to any specific parcel. (See p. 3-5.) Will this use be assigned to a specific parcel in the future? Where? When?

These details are required now in this DEIR to analyze the potential impacts of this new designation.

- The Project Description vaguely references new policies and states, without support, that they are consistent with the County's existing Guidelines for Orderly Development ("GFOD") and Save Open Space & Agricultural Resources ("SOAR") initiative. Yet, no details at all are provided to show that this is so. Without these details, there is no way to confirm whether these new policies will result in inconsistencies with GFOD and SOAR such that significant environmental impacts may occur.
- The Project Description contains only a "brief summary" of each element of the proposed 2040 General Plan. Yet these descriptions are wholly generic. There is no explanation as to what each element will actually do to either permit or prohibit development, or protect or impact resources. There is no hint of the types of goals, policies, and programs that are established in each element, or what is changing from the current General Plan and current Zoning Code. The Project Description should—at the very least—identify policy highlights and ordinances that the 2040 General Plan directs County decision makers to draft and adopt, and describe the type and extent of physical development that will likely be constructed under the 2040 General Plan. These are basic details necessary to assess the environmental impacts of the 2040 General Plan's adoption.
- The Project Description completely omits any estimate of potential and likely buildout. There is no way for a reader to determine how many acres of development, how many dwelling units, or how many square feet of non-residential development is anticipated under the 2040 General Plan. Instead, the Project Description contains only vague and inconsistent statements about the 2040 General Plan permitting "relatively higher intensity" residential, commercial, mixed use and industrial land use designations. (See p. 3-19.) Yet details such as where this higher intensity development will occur, or how much higher intensity the development will be, is wholly missing. Without this information, how can the impacts of such development be analyzed in the DEIR?
- The Project Description fails to even allude to the County's Local Coastal Program ("LCP"), or describe whether and how the 2040 General Plan affects the LCP, a key component of the County's long-range land use planning.

Page 3-5: Preparing a DEIR for the 2040 General Plan while excluding any and all completely foreseeable implementation actions, such as a zoning code

update, results in improper piecemealing and project segmentation. The DEIR generically describes the relationship between general plans and zoning codes, but does not explain whether the County's Zoning Code must be amended as a result of the GPU, and if so, when that will occur. In fact, the DEIR expressly states that at least one new zoning code designation "would be established" "separate from the General Plan Update project as part of the 2040 General Plan's implementation." Required zoning code updates resulting from approval of this Project must be analyzed now, as part of this DEIR. Excluding reasonably foreseeable (let alone required) implementation actions from analysis in this DEIR is a procedural error. (See *McQueen v. Board of Directors*, *supra*, 202 Cal.App.3d at p. 1144.)

Pages 3-6 and 3-11: Preparing a DEIR for the 2040 General Plan before the Housing Element is completed results in improper piecemealing and project segmentation. The DEIR states that draft RHNA numbers will be released in February 2020, which is during the public review period for the DEIR. Accommodation of the County's RHNA could lead to the re-designation of one or several parcels within the County, or the revision/deletion/addition of general plan goals and policies. Therefore, the RHNA's accommodation should be considered as part of this project and analyzed in this DEIR. In fact, on page 3-6, the DEIR even expressly explains that the GPU and the RHNA/Housing Element are two parts of the same land use "alternative" identified through the community outreach for this 2040 General Plan. Separating the 2040 General Plan from the RHNA/Housing Element results in an incomplete and inaccurate project description. Had the 2040 General Plan and the RHNA/Housing Element been analyzed together, the analysis might show that certain aspects of the 2040 General Plan are infeasible, or will have greater impacts than are described in this DEIR. This is precisely why CEQA prohibits dividing a single project into smaller individual subprojects to avoid considering the total environmental impacts of the project as a whole. (State CEQA Guidelines, § 15378(a); see also *Orinda Association v. Board of Supervisors*, *supra*, 182 Cal.App.3d at p. 1171.)

The DEIR's use of an Housing Element "placeholder" does not remedy, and in fact just further highlights the error of, improperly segmenting out the impending Housing Element Update. As explained above, the County is well aware that RHNA allocation increase will significantly affect most of the other elements of the draft 2040 General Plan and its environmental analysis. Including a "placeholder" element results in a meaningless and inaccurate Project Description and further undercuts the DEIR's ability to adequately analyze environmental impacts.

C. Environmental Setting

Pages 4-1 and 4-2: An EIR must describe existing environmental conditions in the vicinity of the proposed project. (State CEQA Guidelines, § 15125.) The DEIR's description of the environmental setting and baseline is inadequate on myriad grounds.

First, it impermissibly buries all description of the existing environmental setting in a 1,000+ page appendix, in direct contravention of CEQA's mandates. CEQA requires that the data in an EIR be presented in a manner that adequately informs the public and decision makers, and forcing readers "to sift through obscure minutiae and appendices" to find out what environmental baseline the DEIR assumes and applies is a failure to proceed in the manner required by law. (*San Joaquin Raptor Rescue Center v. County of Merced, supra*, 149 Cal.App.4th 645, 659.) Instead of distilling the information underpinning the entirety of the DEIR's technical analyses, the DEIR refers its readers "to the Background Report for all other setting information." Yet the Background Report is more than 1,000 pages long, not including its own appendices, and is not organized in a way that coincides with the chapters of the DEIR. Even where an EIR relies on underlying data and analysis in an EIR appendix, the body of the EIR itself must at least include a salient summary of the key issues. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

Second, the DEIR makes vague reference to an assumed growth rate, but provides no substantive evidence explaining why the assumed growth rate is the most appropriate and reasonable assumption to underpin the DEIR's analyses. (See p. 4-1.) Instead, the DEIR states only that the growth rate was chosen by direction of the County Board of Supervisors – but this does not constitute substantial evidence. (See State CEQA Guidelines, § 15384 [substantial evidence includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts].)

Similarly, the DEIR states that the DEIR's analyses are "based on buildout of the plan area" but nowhere in the DEIR's Project Description does it actually identify what buildout would be. Not only is the amount of buildout unclear, but the timing of buildout is unclear as well. The DEIR goes on to say that this unspecified buildout "is not anticipated to occur within the planning horizon" but then also does not explain what is anticipated to occur within the planning horizon. By completely failing to identify the key assumptions underpinning the environmental analysis, it is impossible for a reader to assess whether the DEIR's conclusions are sound. The DEIR thus fails as an informational document.

D. Aesthetics

Pages 4.1-1, 4.1-3 and 4.1-10: The analysis omits relevant aspects of the regulatory setting. The aesthetics analysis completely omits any reference to federal and state regulations that affect aesthetic resources. Similarly, the discussion of the local regulatory setting focuses only on lighting regulations. While some of the missing information is included in the Background Report, a reader cannot be expected to hunt for information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.) At the very least, the regulatory setting must be

expanded to identify and describe the National Scenic Byways Program, the California Scenic Highway Program, state historic preservation programs, the California Building Code, local development standards, regulation of development on hillsides, regulation of historic buildings, guidelines and standards relating to architecture, and regulation of signs beyond illumination. Further, even including the buried regulatory discussion in the Background Report, there is no discussion of historic preservation policies and programs, architectural design, grading ordinances, tree protection, or other regulatory schemes that have significant relation to aesthetics. Omitting any discussion of these types of regulations, failing to analyze whether the proposed project is consistent with them, and failing to disclose whether any inconsistencies will result in potentially significant impacts, results in an inadequate aesthetics analysis.

Page 4.1-12: The DEIR fails to include any details of the existing environmental setting, and even the Background Report appended to the DEIR fails to adequately describe existing conditions. The DEIR states that the Background Report appended to the DEIR “describes the environmental setting for the purpose of this evaluation.” For all the reasons articulated above, the DEIR must summarize the key aspects of the environmental setting in the body of the EIR. However, even the existing conditions description in the Background Report is inadequate. There is no discussion of the existing visual character – only general references to scenic resources. This may be because the DEIR does not actually include any analysis of impacts to existing visual character, as discussed below, however this is salient information relating to existing conditions and baseline. Visual character includes not only natural resources, but urban and recreational features, including roads, utilities, structures, oil and gas facilities, and other results of human activities. Instead, the Background Report reads only as a generic list of existing visual resources, with no discussion of visual quality, view shed, aesthetic values, or viewer sensitivity – all key to understanding the potential for aesthetic impacts resulting from the 2040 General Plan.

More specifically, there is no discussion of existing oil and gas facilities, or their relationship to scenic resources. DEIR page 4.1-1 expressly identifies aesthetics relating to oil and gas facilities as the subject of comments received during the NOP period, yet there is no discussion of those issues, or the existing setting relevant to those issues, in the DEIR or Background Report.

Page 4.1-13: The DEIR does not include any analysis of impacts to existing visual character. The DEIR identifies four thresholds for determining impacts to aesthetic resources, but these thresholds do not align with, and omit, thresholds included in the most recent version of the Appendix G checklist, which the County seems to have never adopted, as required by State CEQA Guidelines § 15022, subdivision (c). Appendix G threshold I(c) requires analysis of whether the project would, “in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings?” Yet the DEIR wholly fails to address any

changes in existing visual character, failing to disclose any such impacts (or lack thereof) to the public or decision makers.

E. Agriculture and Forestry Resources

Page 4.2-4: The Thresholds are over inclusive. The threshold includes Farmland of Local Importance which is not among the types of farmland specified in Appendix G of the CEQA Guidelines as requiring mitigation. The DEIR provides no analysis or justification for exceeding the criteria in Appendix G. The addition of this category will require the creation of additional conservation easements as “mitigation” for the loss of this category of farmland that may or may not be available as mitigation and may impact the ability of the County to meet other objectives such as those that may be included in the update of the County’s Housing Element. How much of this category of farmland is located outside of the SOAR’s growth limits? If it is significant, requiring the establishment of conservation easements over this land or requiring mitigation for its conversion may well adversely impact the ability of the County to meet its housing obligations. There is no analysis of the feasibility of this measure as required by CEQA. Accordingly, this proposed measure is illusory as there is no substantial evidence to support its feasibility. *See Cleveland Nat’l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

Page 4.2-16: Mitigation Measure AG-1 is vague and unenforceable. There is no analysis of how discretionary development can be conditioned to avoid direct loss of Important Farmland. *See Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 262, 261. This measure too is illusory and not supported by substantial evidence as required by CEQA.

Page 4.2-16: Mitigation Measure AG-2 lacks substantial evidence of its feasibility. This mitigation measure provides for the use of off-site agricultural conservation easements at a 2-1 ratio as mitigation for the loss of the categorized agricultural land. The use of off-site conservation easements over existing agricultural land has been broadly criticized since it does not result in any replacement of lost farmland. The easements would only apply to other existing agricultural lands. There is no analysis of the feasibility of this measure, which is doubtful since the owners of the other agricultural lands will have to agree to the imposition of the conservation easements and there is no assurance that there will be sufficient willing owners of agricultural lands to agree to these restrictions at the level required. There is no evaluation of the existence of other agricultural lands that might be available for the acquisition of conservation easements. Accordingly, this proposed measure is illusory as there is no substantial evidence to support its feasibility. *See Cleveland Nat’l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

F. Air Quality

Page 4.3-3: It is unclear how much construction is anticipated as a result of the 2040 General Plan buildout. The DEIR states that “because construction associated with buildout under the 2040 General Plan would generate temporary criteria pollutant emissions, primarily due to the operation of construction equipment... emissions have been estimated in this analysis, and are based on the anticipated amount of development under buildout the [sic] 2040 General Plan.” But, as discussed above regarding the Project Description, there is no statement of what buildout would actually be. How many new dwelling units, how many square feet of new non-residential uses, and where will these be located? These are all details fundamental to the DEIR’s analysis of air quality impacts and their omission makes it impossible for a reader to assess the DEIR’s impact determinations.

Page 4.3-3: There is no substantial evidence supporting the County’s underlying growth assumptions. The DEIR states that “[a]lthough the exact timing of construction activity over this period is unknown, for the purposes of modeling, it was assumed that development would occur gradually in equal annual increments over this time period.” However, no explanation is provided for why this is the most reasonable assumption upon which to pin the analysis. (See State CEQA Guidelines, § 15384(b) [substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts].) Growth typically does not occur gradually, in equal measure over a ten year period. There are likely to be high and low years of construction and development. By assuming a straight linear projection, the analysis ignores true construction impacts (i.e. maximum daily emissions) associated with development in “boom” years. As a result, construction generated air quality impacts are likely undercounted.

Page 4.3-4: The buildout numbers underlying the air quality analysis are nowhere to be found in the DEIR’s Project Description. The DEIR’s air quality analysis assumes construction of 1,125 single family dwelling units, 156 multifamily dwelling units, and specific square footage numbers for several other non-residential land uses. Yet these buildout numbers are not discussed anywhere within the DEIR’s Project Description and will soon be out of date when the new RHNA allocations are adopted. A reader cannot be expected to search deep within the DEIR’s analyses to determine the basic facts of what is proposed— i.e., how many dwelling units and how much square footage of development is likely to occur under the 2040 General Plan. Because there are no additional details provided as to where these buildout numbers come from, it is also unclear whether these numbers represent the maximums allowable under the 2040 General Plan, or whether the County is assuming some smaller subset is what is actually

likely to be constructed.² Because a reader cannot determine what exactly is being analyzed and why, the significance determinations of the air quality analysis are rendered meaningless. (See *Napa Citizens for Honest Govt. v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 359 [at the very least, an EIR must contain an explanation of the reasoning supporting the EIR's impact findings, and the supporting evidence].)

Page 4.3-8: The air quality impacts analysis improperly relies on implementation of proposed General Plan policies that are infeasible or preempted. The air quality analysis relies upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include, but may not be limited to, proposed policies COS-7.1, 7.3, 7.4, 7.7, and 7.8. If an impact's significance determination is based upon the application of policies or programs that will not actually come to pass, the impact analysis is inherently flawed. (See, e.g., *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [mitigation measures must actually be enforceable].)

Pages 4.3-13 and 4.3-15: The DEIR fails to identify or apply any significance threshold for PM10, a criteria pollutant for which the air basin is in nonattainment status. The DEIR states that construction emissions could contribute to the County's existing nonattainment condition for PM10, and as a result, could cause adverse health impacts due to increased exposure to PM10. Yet, pursuant to DEIR Table 4.3-2, the County does not identify any significance threshold for PM10, as required by CEQA. There is no way for a reader to know whether the 20.4 lb/day estimated construction emissions of PM10 are significant when compared to an objective bright-line threshold. Even though the DEIR goes on to assume that the 20.4 lb/day of PM10 emissions are potentially significant, without a threshold, a reader has no way to understand how significant the impact could be, or the order of magnitude of the emissions. (See *Laurel Heights Improvement Association v. Regents of University of California* (1988) 47 Cal.3d 376, 404 [a bare conclusion without an explanation of its factual and analytical basis is not a sufficient analysis of an environmental impact]; see also *San Francisco Baykeeper, Inc. v. State Lands Commission* (2015) 242 Cal.App.4th 202, 227 [CEQA requires agencies to make a policy judgment about how to distinguish adverse impacts deemed significant from those deemed not significant].)

² The text on page 4.3-4 also explains that some information "specific to the 2040 General Plan" was available and thus inputted into the air quality emissions modeling, and then also states that where specific information was not available, CalEEMod defaults were used. The text reads: "See Table 4.3-1, below, for a full list of land use assumptions used for the modeling." Yet the only "assumptions" presented in Table 4.3-1 are the assumed dwelling units and square footages – which, as described above, are presented without any context. None of these seem to be defaults or information "specific to the 2040 General Plan." Again, this is just another example of how the DEIR is vague and inconsistent, and it is impossible for a reader to decipher what assumptions underpin the impacts analysis and why.

Further, the issue of the missing PM10 significance threshold is compounded by the DEIR's proposed Mitigation Measure AQ-1b, which adds Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices, to the 2040 General Plan. This program requires "applicants for future discretionary development projects that would generate construction-related emissions that exceed applicable thresholds" include certain best management practices ("BMPs"). However, if there is no applicable threshold for PM10, how will the County, or applicants, determine when BMPs to reduce PM10 are required? The same comment applies to Mitigation Measure AQ-2a, which adds new policy HAZ-X, which states, "The County shall ensure that discretionary development which will generate fugitive dust emissions during construction activities will, to the extent feasible, incorporate BMPs that reduce emissions to be less than applicable thresholds." This is nonsensical, considering that the DEIR expressly states that there is no applicable threshold for PM10 or PM2.5 (i.e. fugitive dust). Again, the same comment also applies to Mitigation Measure AQ-2b, which adds new implementation program HAZ-X, which also establishes certain criteria to be applied when fugitive dust emissions "exceed the applicable thresholds." Without any identified threshold, these mitigation measures are wholly ineffective. (See *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1168 [mitigation measures' efficacy must be apparent and supported by substantial evidence].)

Page 4.3-15: Several of the air quality impact mitigation measures are limited to only "the extent feasible" which severely limits their effectiveness. All mitigation measures identified under DEIR Impact 4.3-2 are only applicable "to the extent feasible." Including this caveat makes each measure ineffective. Mitigation measures must be concrete and enforceable, and the addition of "to the extent feasible" language makes these commitments meaningless. (*Federation of Hillside & Canyon Associations v. City of L.A.* (2000) 83 Cal.App.4th 1252, 1260 [mitigation measures must not be remote or speculative].)

Page 4.3-15: Implementation Program HAZ-X relating to fugitive dust is duplicative. We request that the first two bullet points be revised to reduce duplication.

Page 4.3-17: The DEIR fails to apply a threshold to the mitigated daily emissions associated with PM 10 and PM2.5, fails to apply all feasible mitigation measures, and adds so many caveats to its final significance determination that the DEIR's air quality conclusions are essentially meaningless. The DEIR concludes that, with the application of the proposed mitigation measures, PM10 and PM2.5 emissions will be reduced, but still fails to apply any type of threshold to the reduced amounts. Similarly, the mitigation measures' reduction of ROG and NOx emissions do not reduce emissions below the significance threshold for Ojai Valley. Yet there is no explanation as to why there are no additional feasible mitigation measures that can be added to reduce these impacts to less than significant. An EIR cannot simply label an impact significant without this discussion and analysis; to do so would "allow[] the lead agency to travel the

legally impermissible easy road to CEQA compliance.” (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1370 [EIR must provide a description and full analysis of a project’s significant impacts].)

Page 4.3-17: **The DEIR fails to include any meaningful analysis of health impacts associated with project exceedances of operational thresholds.** CEQA mandates that an EIR discuss the potential health effects of significant air pollutant emissions. Here, the entirety of the discussion correlating the operational emissions to health impacts reads: “[T]he 2040 General Plan’s contribution to operational criteria air pollutants and precursors could result in greater acute or chronic health impacts compared to existing conditions.” This falls woefully short of what is required, which is a meaningful connection between the levels of pollutants that would be emitted by the completed Project, and adverse human health effects. (*Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 517-522.)

Page 4.3-18: **No operational threshold is identified for CO, PM10 or PM2.5.** The DEIR states that the 2040 General Plan is anticipated to result in 502 lb/day of CO, 320.9 lb/day of PM10, and 87.5 lb/day of PM2.5 emissions. Yet no significance threshold is provided for any of these three pollutants. Without a threshold, a reader has no context for determining whether these impacts are significant, and how significant they are. While the text goes on to assume that these are significant amounts of three pollutants, it is not enough to declare a project significant without providing any context showing how significant (how many orders of magnitude) the impact will actually be. (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners, supra*, 91 Cal.App.4th at p. 1370.)

Page 4.3-18: **Analysis of operational emissions relies on several policies that are likely infeasible because they violate private property rights and/or are preempted by state and local law.** The DEIR explains that it is relying on several new policies applicable to oil and gas facilities, to reduce operational emissions. However, there is no explanation as to why the County believes these new policies are feasible. The policies, among other things, require new oil wells to use pipelines to convey oil and produced water, and prohibits venting or flaring except in cases of emergency or for testing purposes. These policies are likely not feasible and preempted by state and federal law.

Page 4.3-19: **Analysis of operational impacts concludes that operational emissions are “unknown” without any explanation as to why that is so.** The DEIR concludes that while some policies in the 2040 General Plan would reduce criteria air pollutant and precursor emissions, “it is unknown if emission levels from future development would be reduced below the VCAPCD countywide and Ojai Valley thresholds.” However, Table 4.3-4 identifies ROG and NOx emissions levels that exceed the VCAPD thresholds by substantial amounts. It seems clear that future development

will exceed these thresholds prior to the application of mitigation measures, and therefore, the DEIR should so state. (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners*, *supra*, 91 Cal.App.4th at p. 1370.)

Page 4.3-19: The DEIR fails to identify feasible mitigation measures, and defers mitigation to later individual projects. CEQA requires a good faith reasoned explanation when an agency determines that there are no feasible mitigation measures to apply to a potentially significant impact. Here, the DEIR states, without explanation, that no feasible mitigation is available to reduce operational air quality impacts.

Page 4.3-21: Nonsensical “one-way” setback requirements. The DEIR identifies new policies that prohibit siting new oil and gas facilities within 1,500 feet of any residential unit and 2,500 feet from any school (up from 500 feet and 800 feet, respectively, in the current Code), and claims that this new setback requirement reduces the potential of exposing sensitive receptors to toxic air contaminant emissions. However there is no mention of prohibiting additional residential units within these new setback areas. There is no explanation as to why the former reduces potential impacts, but the latter would not. Further, there is no description of which air contaminants sensitive receptors will now be less exposed to, or what the significance is of this reduction. Mitigation measures must have a reasonable relationship or nexus between a project’s impacts and the measure or condition that is imposed. (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825; *Dolan v. Tigard* (1994) 512 U.S. 374.)

G. Biological Resources

Page 4.4-1: The analysis omits relevant aspects of the regulatory setting. As with the other environmental analyses sections, the salient aspects of the regulatory setting should not be buried in an EIR appendix, but clearly presented in the body of the DEIR. (See *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

Pages 4.4-2 through 10: The DEIR’s presentation of affected sensitive species is impermissibly unclear. There is no single presentation of all sensitive species affected by the 2040 General Plan. Instead, a reader must piece together sensitive species lists presented in both the Background Report appended to the EIR, and lists presented in the DEIR chapter. It is unclear why there is no single list of sensitive species available to a reader and obscures the environmental baseline upon which impacts to biological resources is based.

Page 4.4-10: The DEIR impermissibly punts analysis of wildlife nursery sites to future analysis. The DEIR acknowledges that CEQA requires analysis of impacts relating to native wildlife nursery sites, but then goes on to state that these sites “are not mapped for the plan area and would need to be identified and evaluated at a project-

specific level.” The DEIR cannot just decide to ignore and defer identification of existing conditions or analysis of a particular impact. CEQA requires that the County put forward its best good faith effort at analyzing impacts, or else explain, with substantial evidence, why such an impact cannot be analyzed or is too speculative to analyze. (See *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Ca.3d 376, 410.) The DEIR fails to do either.

Page 4.4-14: The DEIR lacks any analysis or significance determination for impacts relating to Habitat Conservation Plans (“HCPs”) or Natural Communities Conservation Plans (“NCCPs”). The DEIR states that there are no HCPs or NCCPs within the plan area – yet never makes an affirmative significance determination. A reader should not be forced to assume the County is making a “no impact” or “less than significant impact” finding, where the DEIR does not so state.

Page 4.4-22: The DEIR impermissibly punts biological resource mitigation for impacts to special status species and habitats to the resource agencies. The DEIR claims that project-specific mitigation measures would reduce impacts to special-status species to less than significant because they would be “developed consistent with applicable state and federal requirements” and follow standards established by the California Department of Fish and Wildlife (“CDFW”). But CEQA case law specifically prohibits deferring mitigation to resource agencies. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal.App.4th 645, 671 [an EIR cannot avoid studying impacts to biological resources by proposing a plan to mitigate presumed impacts based on future studies].)

Page 4.4-24: Mitigation measures do not actually address several of the identified types of impacts. The impact analysis for Impact 4.4-1 identifies several potential types of impacts to sensitive species, including spread of invasive non-native species that out-compete native species or alter habitats. Yet no mitigation is provided to address this identified impact. No aspect of Mitigation Measure BIO-1 addresses nonnative and invasive species or the harms caused by the same. Mitigation measures must address the actual impact identified, or else an explanation must be given as to why mitigation is not feasible. (State CEQA Guidelines, §§ 15121(a), 15126.4(a).) This comment also applies to the other impacts identified in this chapter, as they all rely upon this single mitigation measure.

Page 4.4-26: The DEIR impermissibly punts biological resource mitigation for impacts to riparian habitats to the resource agencies. The DEIR relies on future project-level review by CDFW and the California Coastal Commission to protect riparian habitat and ESHA. The DEIR reads, “Specifically, CDFW or the California Coastal Commission would not permit a project that would degrade these habitats without compensatory mitigation to fully mitigate for the significant impact.” But CEQA case

law expressly prohibits relying on future review by resource agencies to reduce impacts. Under this line of reasoning, no project would ever have significant impacts on riparian habitats or ESHA, making CEQA's directive to the lead agency (here, the County) to analyze and mitigate biological impacts completely meaningless. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal.App.4th 645, 671 [mitigation deferral to future resource agency permitting review not appropriate where result expected is undefined].)

Page 4.4-27: The DEIR implies that if the General Plan included policies that specifically guided focused surveys for sensitive habitat, specific avoidance measures, or compensation requirements, this would further reduce impacts – but then fails to add a mitigation measure actually requiring that the General Plan do this. The DEIR concludes that impacts to riparian habitats and environmental sensitive habitat areas (“ESHA”) are significant and unavoidable, but then also implies that if the 2040 General Plan added these certain performance standards, this would reduce impacts. Yet the 2040 General Plan does not go on to do so, and no explanation is given as to why these performance measures cannot be included. Even where an impact is significant and unavoidable, an agency still has the obligation to assign all reasonable and feasible mitigation measures that would reduce those impacts, even if they would not be reduced to a level of less than significant. (State CEQA Guidelines, § 15126.2(b).) This comment also applies to the other biological impacts identified in this section of the DEIR.

H. Cultural, Tribal Cultural, and Paleontological Resources

Page 4.5-16: The DEIR concludes that the impact of architectural resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding is based on speculation that the mitigation measures may not be sufficient in every case. CEQA Guidelines Section 15091(a) provides that findings must be supported by substantial evidence. As previously noted, an EIR cannot simply label an impact significant without this discussion and analysis; to do so would “allow the lead agency to travel the legally impermissible easy road to CEQA compliance.” (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1370 [EIR must provide a description and full analysis of a project's significant impacts].) As noted in the general comments, this lack of analysis in effect simply defers all mitigation to project level environmental analysis. This is not the proper function of a program level EIR.

Page 4.5-21: The DEIR concludes that the impact on historical resources will be significant and unavoidable despite the inclusion of standard mitigation

measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding is also based on speculation that the mitigation measures may not be sufficient in every case.

Page 4.5-24: As with the impacts in architectural and historic resources, the DEIR concludes that the impact on tribal cultural resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding suffers from the same lack of real analysis as with regard to Impacts 4.5-1 and -2 and is based on speculation that the mitigation measures may not be sufficient in every case.

Page 4.5-26: As with all of the other impacts in this section, the DEIR concludes that the impact on paleontological resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding suffers from the same lack of real analysis as with regard to all of the other impacts in this section and is based on speculation that the mitigation measures may not be sufficient in every case.

I. Energy

Page 4.6-4: The DEIR's discussion of environmental setting/environmental baseline is incomplete at best, non-existent at worst. The less than five page Background Report, combined with the DEIR's discussion of climate change does not amount to a clear, informative picture of what is going on within the County in terms of energy consumption, energy mix and energy efficiency, today, under the current General Plan. Such a discussion is critical to a legally adequate discussion of the environmental setting. (See *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713.) As such, it is impossible to judge whether implementation of the 2040 General Plan will have a beneficial, adverse or neutral impact on energy resources, and the DEIR's energy analysis is wholly deficient.

Pages 4.6-18 through 22: The DEIR fails to apply the two required energy significance thresholds identified in Appendix G of the State CEQA Guidelines. The DEIR states that it will qualitatively evaluate two distinct significance thresholds in its energy impacts analysis: (1) whether the project will result in inefficient/wasteful energy consumption, and (2) whether the project will conflict with state or local plans. However, the DEIR then conflates these thresholds into a single analysis concerning only wasteful consumption. No analysis is provided relating to whether the 2040 General Plan conflicts with state or local plans relating to energy. This analysis must be provided in a recirculated DEIR for public review and comment.

Page 4.6-19: The DEIR fails to adequately identify policies that will reduce impacts relating to wasteful and inefficient energy consumption. The DEIR lists myriad policies that are ostensibly relevant to energy conservation (see DEIR pp. 4.6-7 to 7.6-18); however, the DEIR only identifies two proposed policies (COS-8.7 and COS-U) for ensuring that there is no wasteful or inefficient energy consumption across the entire 2040 General Plan area for the next 20 years.

Page 4.6-20: The DEIR's conclusions regarding energy consumption are unfounded. The DEIR states that it cannot quantify the effectiveness of energy conservation features for future development, but nevertheless concludes, without evidence, that future development under the 2040 General Plan will not unnecessarily expend energy. The analysis should be revised to include substantial evidence supporting this conclusion, and recirculated.

Pages 4.6-21 through 22: The DEIR's conclusions regarding consistency with statewide plans and policies is unfounded. The DEIR's conclusion that there will be consistency with all applicable state renewable policies, without identification of the policies or analysis of the 2040 General Plan against those policies is legally deficient. The analysis should be revised to include substantial evidence supporting this conclusion, and recirculated.

Background Report, p. 8-80 to 85: The Background Report's description of the environmental setting is drastically inaccurate and inadequate. The entirety of the Background Report's description of the existing energy resources and industry within the County is woefully inadequate. The entire discussion is less than five pages in length, and is devoid of any meaningful amount of data on energy source mix, County energy consumption, or other standard information that the public and decision makers need to understand the existing setting, environmental baseline, and impact analysis. Specific information that is in error or wholly missing includes, but is not limited to, any discussion of oil and gas based energy production and consumption within the County, any discussion of natural gas consumption within the County, and any discussion of the use of natural gas to fuel power plants and produce the electricity consumed by County residents. Finally, the discussion's estimate of energy employment within the County is a drastic underestimate. As set forth in the publically available study entitled "Economic and Tax Revenue Impacts of Oil Production in Ventura County," there are approximately 900 individuals employed by oil and gas explorers and producers within the County. That is more than double the amount disclosed by the DEIR.

J. Geologic Hazards

Page 4.7-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for

information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

K. Greenhouse Gas Emissions

Page 4.8-6: The DEIR's greenhouse gas reduction targets are not based on substantial evidence and violate CEQA case law. The DEIR explains that the Climate Action Plan ("CAP") developed as part of the 2040 General Plan applies the same targets to Ventura County as the state has adopted for all of California. This approach wholly ignores regional differences, which is an approach to local CAPs that courts have struck down in myriad cases. (See, e.g., *Golden Door Properties, LLC v. County of San Diego* (2018) 27 Cal.App.5th 892, 905; *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 225.) Courts have explained that local reduction goals cannot be based on statewide metrics and instead must explain why applying statewide data and reduction targets is appropriate for setting the metrics in the local region (here, Ventura County). Here, there is absolutely no substantial evidence supporting the application of the 40% and 80% statewide targets to Ventura County. This analysis should be done, incorporated into a revised DEIR, and recirculated for public review and comment.

Page 4.8-8: Greenhouse gas emissions thresholds identified in the DEIR for application to future projects are not supported with substantial evidence. The DEIR identifies two threshold "options" with which to analyze future projects, but neither is supported with substantial evidence. Both are also based on 2020 statewide targets. Yet, it is 2020 now and so these targets are wholly inappropriate for any project that is not built out before this year. Second, they are based on statewide criteria, which is inconsistent with CEQA case law requiring substantial evidence tying statewide reduction targets to the local context. (See, e.g., *Golden Door Properties, LLC v. County of San Diego* (2018) 27 Cal.App.5th 892, 905; *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 225.) The DEIR implies that it is fine to rely on these thresholds because they are identified (albeit not adopted) by Ventura County Air Pollution Control District. While CEQA permits borrowing thresholds from regulatory agencies, they must nonetheless be supported by substantial evidence. Here there is no substantial evidence provided in the DEIR supporting use of these thresholds.

Pages 4.8-11 through 37: Several identified General Plan policies are infeasible or preempted. The greenhouse gas emissions analysis relies upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include policies COS-7.2, 7.4, and 7.7, and implementation program M (oil and gas operations tax). Taking credit for policies that

are more than likely to be either struck down or that are simply infeasible results in an erroneous analysis, not based upon substantial evidence. (See, e.g., *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [mitigation measures must actually be enforceable].)

Page 4.8-39: The DEIR's greenhouse gas emissions analysis applies the wrong horizon year. It is unclear why the DEIR focuses on reductions by 2030, when the planning horizon for the GPU is 2040. DEIR Table 4.8-5 summarizes the assumed greenhouse gas emissions reductions by 2030, but not 2040, which is the planning horizon for the 2040 General Plan. The analysis should therefore be revised to consider the 2040 General Plan's consistency with the state's reduction targets, as applied to the year 2040.

L. Hazards, Hazardous Materials, and Wildfire

Page 4.9-1 through 2: As with most other sections of the Regulatory Setting and Environmental Setting sections of the DEIR impermissibly relies on a separate 1,000+ page appendix. See general comments on this deficiency.

Page 4.9-9: County Policy HAZ-7.1 is noted as requiring that the County review and analyze all proposed oil and gas exploration and production wells and projects and shall require compliance with all local, state and federal oil spill prevention regulations. This policy is inconsistent with the fact that local regulation of oil and gas exploration and production is largely the subject of preemption. Moreover, as previously noted, CEQA case law specifically prohibits deferring mitigation to resource agencies. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal.App.4th 645, 671 [an EIR cannot avoid studying impacts to biological resources by proposing a plan to mitigate presumed impacts based on future studies].)

Page 4.9-11 through 12: The discussion under Impact 4.9-1 fails to consider the existing oil and gas operations and the potential impact of new County policies. It is noted that oil and gas wells are among the uses permitted in the Rural and Open Space land use designation, which in turn includes approximately 98 percent of County land, but there is no discussion of what percentage of these lands are actually used for oil and gas production. It should be noted that a very small percentage of land is actually utilized for these operations. This section also notes that the potential for new pipeline construction and operation may be increased by the new 2040 General Plan policies limiting trucking as a means of transporting oil and gas from a new discretionary well. There is no discussion of the potential impact of constructing and operating new pipelines or the feasibility of this measure. How will right-of-way be acquired from offsite property? What legal constraints exist on located pipelines within or adjacent to sensitive land uses including residential areas? Is the true intent of this policy the elimination of

new oil and gas production uses? Nor is there any discussion of the alleged impact of the existing trucking of oil and gas products with regard to hazards or hazardous materials.

County Policies HAZ-5.2, HAZ-5.5, HAZ 5.8 and HAZ 7.1 and County Implementation Programs K and L are noted as providing guidance for the location, operation, and management of discretionary development including oil and gas exploration and production such that future sites would reduce impacts to public health and the environment but there is no analysis of how these policies may operate to reduce the impacts to a less than significant level. This finding is not supported by substantial evidence as required by law.

Page 4.9-14 through 16: The discussion under Impacts 4.9-2 and 4.9-3 similarly references County Policies HAZ-5.2, HAZ-5.5, HAZ 5.8 and HAZ 7.1. and County Implementation Programs K and L with no analysis of how these policies and programs would reduce potential impacts to a less than significant level. An EIR must contain an explanation of the reasoning supporting the EIR's impact findings, and the supporting evidence. (*See Napa Citizens for Honest Govt. v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 359.)

M. Hydrology

Pages 4.10-6 through 7: The DEIR fails to consider impacts associated with prohibiting development in certain locations and impacts associated with water usage. Proposed policies HAZ 2.1, and 4.14, and the DEIR's discussion of water wells, fails to account for or analyze the potential for environmental impacts. Restricting growth in certain development areas is likely to push development elsewhere, resulting in impacts that are not disclosed in this analysis.

Pages 4.10-9 through 10: The DEIR fails to support its conclusions regarding water quality and overdraft with substantial evidence. The analysis does not link its impacts determination to the effectiveness of GSPs and Ordinance 4468 to ensure impact is less than significant. There is no evidence supporting the conclusion that GSP/Ordinance 4468 compliance will ensure less than significant impacts. To the contrary, a cursory examination indicates that mere compliance will not be adequate. The GSPs have not even been developed (see DEIR p. 4.10-6) and no performance standards are identified for any proposed GSP. Ordinance 4468 is a groundwater pollution control ordinance (see Section 4811) and does not actually prohibit all drilling of new wells, which could lead to overdraft. (*See <http://pwportal.ventura.org/WPD/docs/Groundwater-Resources/Well%20Ordinance%20No.%204468.pdf>*.) Further, the DEIR punts impact analysis to a future date, and also presents internal inconsistencies in its analysis of Impact 4.10-3. Specifically, the DEIR states that compliance with GSPs will ensure no

over-extraction in unknown basins, but then also states that impact analysis cannot be performed at this time. This is then followed by the DEIR's unsupported less than significant impact conclusion (see 4.10.11). Given these inconsistencies, this analysis should be revised to include and cite to substantial evidence, and recirculated for public review and comment.

Page 4.10-13: The DEIR does not adequately analyze impacts to water for consumptive use. The analysis of Impact 4.10-6 relies upon an uncertain and unstable water supply, calling into question the DEIR's impact significance determination here.

N. Land Use Planning

Background Report p. 3-47: The DEIR does not analyze or reconcile the inconsistency between the 2040 General Plan and the Ventura Avenue Plan. The Ventura Avenue Plan clearly contemplates protection and expansion of oilfield uses, while the 2040 General Plan's goals, policies and programs do not. There is no analysis of this inconsistency, and instead, the DEIR makes the false assertion that the 2040 General Plan is consistent with the Ventura Avenue Plan. This analysis should be revised and recirculated for public review and comment.

Background Report, pp. 3-89, 3-90 and 3-97: As discussed previously, the DEIR's failure to address and analyze the impacts of up-zoning to meet future housing needs results in improper segmentation. The DEIR concedes that the County cannot meet post-2020 housing growth needs and commercial growth needs, and concedes that "up-zoning" would be required to meet anticipated RHNA housing obligations. However, the DEIR is devoid of any analysis regarding this apparent conflict. The reasonably foreseeable "up-zoning" needs to be analyzed as part of this Project and this analysis. (State CEQA Guidelines, §§ 15126, 15165 [when a project will be implemented in phases, the EIR must discuss and analyze the effects of the entire project].) As noted elsewhere, the underlying development potential methodology utilizes outdated (2014) RHNA numbers which effectively masks the disparity between "potential" and actual development that will take place through horizon 2040, burying the magnitude of the potential for land use impacts.

Page 4.11-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. The land use chapter of the Background Report is more than 135 pages, not including an attachment. A reader has to do significant digging just to find the relevant regulatory setting, which should be presented upfront, in the body of the DEIR. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

Page 4.11-2: The DEIR fails to cite to substantial evidence to support several of its land use impact conclusions. For example, the DEIR states, “In determining the level of significance, this analysis assumes that the 2040 General Plan would comply with relevant Guidelines for Orderly Development, greenbelt agreements, and the Save Open Space & Agricultural Resources (SOAR) initiative measure for Ventura County’s unincorporated areas.” But this conclusory statement is not supported with any analysis. See above comments on the Project Description relating to substantial evidence supporting the conclusion that the Project Description is consistent with these documents.

Page 4.11-2: The DEIR fails to analyze internal inconsistency, or consistency between the 2040 General Plan and the existing Area Plans that are not amended. The DEIR states that Threshold 25(1) asks whether the Project is consistent with the community character policies and development standards in the Ventura County General Plan goals, policies and programs, or applicable Area Plan. The DEIR goes on to explain that this threshold will not be considered in this DEIR because “this draft EIR is an evaluation of an update to the Ventura County General Plan goals, policies and programs, and Area Plans under which future projects would be evaluated.” However, failing to analyze this threshold means that there is no analysis of internal consistency. The Project Description chapter of the DEIR explains that very few changes are made to the Area Plans, therefore the Land Use & Planning chapter of the DEIR should consider whether the changes in the land use designations are consistent with all policies that are unchanged. See comment above regarding the Ventura Avenue Plan’s protection and expansion of oil field uses.

Page 4.11-3: The DEIR’s land use analysis relies on an unclear project description. General Plan Policy LU-1.2 generally describes the “Urban” and “Existing Community” area designations. But, as discussed above, the DEIR Project Description states that these designations are being replaced by 15 different and more specific land use designations. Therefore the Project Description and this policy are inconsistent. If the 2040 General is replacing the Urban and Existing Community designations with new designations, why is Policy LU-1.2 still a part of the 2040 General Plan? The same comment applies to Policy LU-2.1 and LU-3.1 through 3.3. If one of the salient features of the 2040 General Plan is to replace these general designations with more specific designations, these policies just further muddy the water on what exactly the Project Description is. Without a stable and consistent project description, there can be no legally defensible analysis of environmental impacts. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185.)

Page 4.11-6: The DEIR’s assumptions regarding the RHNA undermine the Project Description and analysis of land use impacts. 2040 General Plan Policy LU-1.3 states that the County will work with SCAG “to direct state regional housing needs allocations predominantly to cities...” However, as discussed above in regards to improper segmentation, the RHNA methodology is already available and estimates a

significant number of new units to be accommodated within the unincorporated county. Further, cities are likely to push back on their significantly higher RHNA allocations, and push those units out to the County such that the final number will likely be even greater. For all these reasons, and the ones identified in our comments on the Project Description, the entirety of the GPU should be paused until the RHNA allocations are finalized. See also comments above regarding Background Report pp. 3-89 to 3-90, 3-97.

Page 4.11-6: The DEIR fails to consider or analyze reasonably foreseeable implementation actions. 2040 General Plan Policy LU-4.2 requires zoning consistency between the GP and the zoning code. See comments above regarding improper segmentation and failing to consider reasonably foreseeable (and legally required!) implementation actions as part of “the project” for purposes of CEQA. See also, Implementation Program B, which requires that the County “review and amend, as necessary, applicable ordinances and regulations to ensure consistency with the General Plan, including the Zoning Ordinances and Building Code.” These policies further illustrate the DEIR’s inconsistency with CEQA’s mandates, which require analysis of the “whole” project. (State CEQA Guidelines, § 15378(a); see also *Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora* (2007) 155 Cal.App.4th 1214.)

Page 4.11-14: The DEIR relies on a 2040 General Plan Policy that is likely inconsistent with vested rights and/or preempted by state or federal law. Policy LU-17.4 prohibits the introduction of new incompatible land use and environmental hazards that would have health implications into or abutting existing residential areas, in particular within designated disadvantaged communities.” Yet there are no details provided as to what constitutes a health implication and no explanation as to why there is no similar prohibition against introducing new residential uses adjacent to land currently (or likely to be in the future) dedicated to oil and gas use.

Page 4.11-18: The DEIR fails to analyze the land use impacts (and all other impacts) associated with the new 2040 General Plan land use designations. The 2040 General Plan creates 13 new land use categories (or 15, given that the Project Description is inconsistent between sections of the DEIR) with distinct development standards—yet there is no real analysis of how the installation of the 13 or 15 new use classes that did not previously exist would not create a conflict with uses established pursuant to the six use designations established in the current General Plan. Notably, the DEIR concedes that the new land use classifications will result in development at a higher intensity in locations where residential, commercial, and industrial uses exist. Yet there is no explanation of how this intensification will be accomplished to avoid incompatibility. (As has been the case throughout the DEIR, Section 4.11 consists of a laundry list of LU policies, but, when it comes to explaining the role those policies play in avoiding or mitigating a potential impact (e.g. incompatible uses), the DEIR fails to provide that critical explanation/analysis.)

Page 4.11-21: The DEIR's vague and inconsistent Project Description results in unsupported conclusions regarding land use compatibility. The DEIR states that "Policies LU-4.1 and LU-4.2 would reduce incompatible land uses by specifying densities and/or intensities of allowed uses within each land use designation and maintaining continuity with neighboring zoning, land uses, and parcel sizes." But neither of these policies do this, or specify densities or intensities in any way. Therefore, it is unclear how the significance conclusion is supported. Similarly, the DEIR states that Policy LU-6.1 reduces incompatibilities by "specifying buffers" but this policy does not specify any performance criteria or distance criteria at all. It only states generally and generically that "adequate buffers" be incorporated into non-agricultural uses adjacent to agricultural uses.

Page 4.11-22: The DEIR's analysis and conclusions regarding division of an established community are not based on substantial evidence. The DEIR relies on only one policy (promotion of orderly and compact development) to ensure that there will be no division of established communities. Yet, this is not enough substantial evidence to support the significance conclusion. The DEIR does not even acknowledge that foreseeable infrastructure improvements caused by intensification of growth in a confined space will, at minimum create temporary divisions and disruptions during construction (e.g., trenching to upsized infrastructure, road closures to improve streets). Thus, it is unclear how the conclusion that impacts are less than significant can be supported.

Pages 4.11-22 through 24: The DEIR cannot conclude that the 2040 General Plan is consistent with the RHNA when the 2040 General Plan includes only a "placeholder housing element" and improperly segments the Housing Element and accommodation of the RHNA from its Project Description. The DEIR states that "Implementation of the 2040 General Plan policies and programs listed above, coordination of the RHNA with housing element updates, and compliance with applicable regulations would ensure that development under the 2040 General Plan is consistent with the RHNA." This essentially argues that the 2040 General Plan is consistent with the RHNA because the County will change the General Plan in the very near future to accommodate the RHNA. This is nonsensical. For all the reasons provided in our comments on the Project Description, the RHNA, which is imminent and by the County's own estimate will be released while the DEIR is out for public review, accommodating the RHNA may likely require changing the designations identified in the 2040 General Plan. This undermines the meaning and reliability of the DEIR's impact analyses. This is exactly why CEQA prohibits improper segmentation of related projects. (See *Orinda Association v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171.)

Pages 4.11-18 through 24: Even though the 2040 General Plan will provide the land use and planning blueprint for the entire County for the next 20 years, the land use impacts analysis is a mere seven pages. This alone indicates that the impact analysis is so truncated as to be meaningless. Further, regarding analysis of Impact 4.11-

13, there are presumably a number of plans/policies adopted for purposes of environmental protection that were not considered in the DEIR—the DEIR lists a mere handful of plans and policies. In most EIRs, this analysis is much more thorough.

O. Mineral and Petroleum Resources

Background Report p. 8-71: The Background Report Drastically Underestimates Known, Recoverable Oil and Gas Reserves Mischaracterizes Oil and Gas as Not Within the Definition of “Mineral Resources.” It does not appear that the County considered Aera’s historic production and known reserves. This critical omission causes the DEIR to underestimate County-wide oil and gas reserves. Additionally, it appears that the County eschewed accepted methodological practices in estimating oil and gas reserves so as to further underestimate the volume of and value of these known recoverable resources. Finally, the DEIR appears to treat oil and gas as a resource separate and apart from aggregate mineral resources (such as sand and gravel) for purposes of determining the consequences of adopting GP 2040. Under CEQA, the DEIR must fully and fairly disclose whether adoption of GP 2040 will result in the loss of availability of a known mineral resources—this includes the loss of oil and gas as well as the loss of sand, gravel or other minerals utilized in concrete production.

Pages 4.12-1 through 4: The DEIR lacks an adequate description of the existing regulatory setting. The DEIR seems to disclose only those federal and state agencies that regulate pipelines and flaring. This is, at best, only a fraction of the regulatory framework relevant to oil, gas, and mineral production.

Pages 4.12-5 through 6: The impact assessment methodology is based on incomplete and inaccurate underlying data. The 2040 General Plan relies upon a four year old map of petroleum field locations, not reserve locations. The boundaries of a field do not indicate the known extent of recoverable sub-surface reserves. This results in a significant underestimate of impacts on extraction.

Page 4.12-7: The DEIR makes a bare conclusory statement that the 2040 General Plan is consistent with and will not impair the implementation of any mineral resource goal/policy in any of the Area plans. However, a cursory examination of the County’s North Ventura Avenue Plan (“NVAP”) reveals that this bare assertion is incorrect. The NVAP contemplates new and expanded oilfield development within land specifically zoned for such development. *See* NVAP at page 12. How is this overarching development consistent with the goals and policies of GP 2040 aimed at phasing out the extraction and production of oil and gas in the County?

Page 4.12-8: The DEIR relies upon legally infeasible policies. As discussed earlier, several of the policies relied upon in the DEIR are likely legally infeasible, and therefore cannot provide a basis upon which to analyze impacts. Specifically, Policies

COS-7.2 and 7.3 likely amount to regulatory takings. Under COS-7.3, modification of a previously issued permit would wrongfully subject the permittee to compliance with current development constraints across the entire permit area. In other words, the request to drill one well on a 1000 acre permit site would trigger compliance with all new regulations across the entire site, despite the minor nature of the request. Moreover, Policies COS-7.7 and 7.8 are preempted, as a local agency cannot eliminate the use of trucking of oil or limit flaring to County-defined instances of "testing" or "emergency." Those activities are governed by state and federal law.

Page 4.12-10: The DEIR's conclusions for Impact 4.12-1 are unsupported. The DEIR states that residential and industrial uses will be installed in a major mineral resource zone (MRZ-2), but inexplicably concludes that the impact is less than significant. There are no facts or analysis supporting this conclusion.

Page 4.12-11: The DEIR's conclusion of less than significant with respect to mineral resources is contradicted by the DEIR's own supporting Background Report. The DEIR concedes that more than half of the 2040 General Plan area is MRZ 3a/b. The DEIR's Background Report states that such lands have mineral value as follows: "MRZ-3: Areas containing known mineral deposits that may qualify as mineral resources (3a) or areas containing inferred mineral deposits that may qualify as mineral resources (3b). Further exploration work within these areas could result in the reclassification of specific localities into the MRZ-2 category." The DEIR's less than significant conclusion is wholly unsupported, as development will necessarily impact MRZ 3 resources, and these zones contain inferred mineral deposits.

Page 4.12-12: The DEIR's reliance on the 2018 County of Los Angeles Report is unfounded. The DEIR proposes the imposition of various measures and policies based on the alleged human health findings contained in a report referred to as "County of Los Angeles. 2018. Public Health Safety Risks of Oil and Gas Facilities in Los Angeles County. Los Angeles County DPH" (hereinafter "2018 County of Los Angeles Report"). The preparers of this report have themselves disputed the validity of the report's conclusions. As such, the 2018 County of Los Angeles Report does not amount to substantial evidence supporting the DEIR's imposition of measures and policies to allegedly protect human health.

Pages 4.12-11 through 19: The DEIR fails to put forth a good faith effort at mitigating significant impacts to oil and gas resources. The DEIR fairly concludes that 2040 General Plan Policy COS-7.2 will have an adverse and significant and unavoidable impact on oil and gas exploration and production. Additionally, as already noted above, it arguably constitutes a regulatory taking. However, there is no meaningful effort made to mitigate this significant impact. The fundamental purpose of an EIR is to identify ways in which a proposed project's significant environmental effects can be mitigated or avoided. (Pub. Resources Code, §§ 21002.1(a), 21061.) Therefore,

declaring an impact significant does not absolve a lead agency from identifying and adopting all feasible mitigation measures, if those measures do not reduce impacts to a level of less than significant. Further, the reasonably foreseeable indirect impacts of implementation of Policy COA-7.2 are not evaluated in any way in the DEIR. Foreign importation of oil increases greenhouse gas emissions and air quality degradation. Even if those impacts were to occur outside of the County's boundary, CEQA mandates that the County analyze and disclose these impacts in this DEIR. (See State CEQA Guidelines, § 15358(a)(2).) None of the proposed mitigation measures reduce these potentially significant impacts to less than significant.

Page 4.12-22: The DEIR fails to analyze and disclose reasonably foreseeable indirect impacts associated with several of the 2040 General Plan's proposed policies. The DEIR ignores the foreseeable adverse consequences associated with large scale installation of oil and gas pipelines, which would include, but not be limited to, soils/geology, hydrology and water quality, cultural and hazards impacts. (See *Laurel Heights Improvement Association v. Regents of Univ. of California* (1988) 47 Cal.3d 376, 396 [EIR must analyze any action if it is a reasonable, foreseeable consequence of the project].) None of the proposed mitigation measures reduce these potentially significant impacts to less than significant.

P. Noise and Vibration

Page 4.13-5: The methodology utilized to assess operational impacts fails to consider potential significant increases in traffic projected to occur as a result of the new RHNA allocation in the region and state housing legislation and policies. As discussed in the comments on the Transportation and Traffic Section, this analysis should await the final RHNA numbers and the update of the County Housing Element.

Page 4.13-23: The discussion under Impact 4.13-4 lists oil supply facilities among major industrial noise sources. The only support for this assertion is a reference to the Background Report. The Background Report, however, includes no analysis or justification for this conclusion, and the DEIR is likewise devoid of any evidence supporting this conclusion. As such, the DEIR does not, and cannot, demonstrate that oil and gas production generates noise above and beyond the noise levels generated by general industrial activities.

Page 4.13-27: County Policy HAZ 9.2 provides for specific noise control measures applicable to new noise generators located near sensitive uses but fails to restrict the development of new sensitive uses adjacent to areas where new noise generators are permitted uses. Policy HAZ 9.2 does not go far enough in mitigating potential noise impacts on sensitive uses. Absent policies addressing the location of new sensitive uses, the County policy can only serve as a limitation on the development of otherwise permitted uses such as oil and gas production uses. Mitigation measures must

have a reasonable relationship or nexus between a project's impacts and the measure or condition that is imposed. (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825; *Dolan v. Tigard* (1994) 512 U.S. 374.) Implementation of this policy may well result in a regulatory taking of property interests to the extent that they would deprive property of investment backed expectations.

Q. Population/Housing

Page 4.14-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for information buried in a more than 1,000+ page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.) Further, even taking the Background Report into account, there is no discussion of Senate Bill 330, which has significant population and housing repercussions that must be taken into account as part of the DEIR's analysis.

Pages 4.14-6 through 8: The DEIR fails to account for the impending RHNA numbers, and this results in improper segmentation and piecemealing. See previous comments on this topic.

R. Public Services and Recreation

Page 4.15-1: As with other sections of the DEIR, this section does not reflect the likely increases in population that will result in the upcoming RHNA allocations to the County and to cities within the County. See previous comments on this topic.

S. Transportation and Traffic

Page 4.16-4: The VMT estimates in Table 4.16 are not reflective of the additional traffic that will be created by the new RHNA allocations both within the County and in the region and new state legislation and policies that are intended to increase housing production. Regional traffic is significant because the threshold included in the DEIR include regional traffic in the baseline. Projected increases in housing are significant and will generate significant increases in regional VMT which in turn will impact traffic within the unincorporated County.

4.16-7 through 8: The proposed thresholds are not really thresholds of significance. The purported threshold that assumes a reduction of VMT by 15% below existing projected levels is really proposed mitigation, not a threshold of significance. Even so, this approach is subject to numerous objections, not the least of which is that it is aspirational social engineering based on stated state goals with respect to GHG reduction and not potential environmental impacts. There is no analysis of the feasibility

of achieving a 15% reduction in VMT on a project-by-project basis. A failure to address the issue of feasibility renders this analysis illusory. There is no substantial evidence to support its feasibility. See *Cleveland Nat'l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

Page 4.16-10 through 11: The use of the existing baseline is flawed based on the potential significant increases projected to occur as a result of the new RHNA and state housing legislation and policies. This analysis should await the final RHNA numbers and the update of the County Housing Element. Moreover, this threshold is likely to obsolete in view of the fact that the DEIR notes that this threshold will no longer apply once the Ventura County ISAG VMT thresholds are adopted which is likely to occur prior to June 30, 2020, when VMT analysis becomes mandatory.

Page 4.16-12 through 13: The proposed General Plan polices seem to improperly conflate VMT standards with LOS standards. Proposed Policy CTM-1.1 bases an acceptable level of service on VMT impacts yet fails to address previous County policies that base level of service impacts on specified congestion related impacts (LOS standard). Is it the intent of the County to ignore proposed congestion impacts and, if so, how will proposed Policy CTM-1.7 be implemented so as to require discretionary projects to share the cost of added trips and improvements to the road system per the County traffic mitigation program? Under VMT theory congestion is good as it serves to promote reductions in VMT by encouraging high density development and the use of alternative means of transportation. What improvements are contemplated as mitigation?

Page 4.16-15: How will the County comply with the provisions of the Congestion Management Program as required by Government Code Section 65088 et seq. Proposed Policies CTM-2.7 and CTM-2.8 contemplate that the County will cooperate with Ventura County Transportation Commission in complying with the provisions of Government Code Section 65088 et seq regarding Congestion Management Programs (CMPs). The management of congestion per the CMP specifically includes the use of LOS standards, not VMT.

Page 4.16-23: The DEIR analysis that asserts that the new 2040 General Plan Policy addressing flaring and trucking associated with new discretionary oil and gas wells would result in a potential reduction in VMT in the County is not supported by substantial evidence. This analysis is flawed in that heavy trucks are not among the categories of VMT included in the OPR recommended threshold. (Office of Planning and Research, Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) at page 4).

Page 4.16-24: The forecasts set forth in Table 4.16-4 similarly fail to consider likely increases in VMT throughout the region based on the proposed new RHNA

allocations for the County and cities within the County and are not supported by substantial evidence. Table 4.16-4 purports to be a 2040 forecast, but, as with other portions of the DEIR, fails to account for the much higher RHNA numbers that will be applied in the region and as a result fails to provide an adequate basis for the thresholds identified in Table 4.16-5, which in turn results in a default to a finding of significant and unavoidable impacts for impacts 4.16-1 and 2.

T. CUMULATIVE IMPACTS

Aera's comments regarding cumulative impacts are addressed in the individual topics identified above. However, generally, the DEIR fails to adequately consider whether the Project's individual impacts, when considered in the context of other projects proposed within the County, the region, and the individual incorporated cities within the County, results in cumulatively considerable environmental impacts. This includes whether the RHNA numbers that will be assigned not just to the County, but to the individual incorporated cities within the County, will result in new projects, new general plan amendments, new zoning amendments, or other policy changes that, together with the proposed 2040 General Plan, will result in cumulative impacts relating to air quality, greenhouse gases, noise, traffic, aesthetics, mineral resources, and biological impacts, among others.

U. ALTERNATIVES

Page 6-1: The Alternatives analysis is flawed in its failure to account for new RHNA allocations and housing legislation. The underlying land use policies are subject to change in the near future as a result of pending increases in the regional RHNA allocations and State housing policy. Like most other sections in the DEIR, it is premature to consider alternatives to the project in advance of a the issuance of the final RHNA allocations in the region and an analysis of the impact of State housing policy on land use within the County.

Page 6-1: The Alternatives Section is flawed due to the DEIR's failure to adequately disclose and mitigate significant and unavoidable impacts. CEQA requires that public agencies do their best to disclose the actual severity of significant impacts, and implement and enforce all feasible mitigation measures to reduce significant impacts. As described above, this DEIR declares several impacts "significant and unavoidable" without meaningful analysis, or a true good faith examination of feasible mitigation measures. Because CEQA mandates that the project alternatives identified and analyzed in an EIR be based on what can feasibly reduce significant and unavoidable impacts, when those impact analyses are flawed, so too is the alternatives analysis.

III. CONCLUSION AND REQUEST FOR RECIRCULATION

As described above, the DEIR is deficient in myriad ways and we respectfully request that it be significantly revised and recirculated, as required by CEQA and the State CEQA Guidelines. Recirculation is required when new information is added to an EIR after notice of public review has already been given, and that new information requires additional review by the public. (Pub. Resources Code, § 21092.1.) Where new information added to an EIR is “significant”, recirculation is required. (*Ibid.*) Where new information shows a new impact, a substantial increase in the severity of an impact, a new feasible alternative or mitigation measure, or where the DEIR previously circulated was so fundamentally inadequate and conclusory in nature that public comment was essentially meaningless, the new information added to the EIR is “significant.” (*Laurel Heights Improvement Association v. Regents of Univ. of Cal.* (1993) 6 Cal.4th 1112, 1130; State CEQA Guidelines, § 15088.5(a).) Further, where the previously circulated EIR wholesale omitted key information necessary to actually determine what a proposed project’s potentially significant impacts would be, recirculation is required. (*Mountain Lion Coalition v. Fish & Game Commission* (1989) 214 Cal.App.3d 1043; *Save Our Peninsula Comm. v. Monterey County Bd. of Supers.* (2001) 87 Cal.App.4th 99, 131.)

Again, Aera appreciates the opportunity to review and comment upon the DEIR, and looks forward to seeing the recirculated report in the near future. As requested, we are providing the name of our point of contact, mailing address and email address as follows:

Michele Newell
3382 N. Ventura Avenue
Ventura, CA 93001
E-mail: MLNEWELL@AERAENERGY.COM

Sincerely,



Michael S. James
Senior Counsel
Aera Energy LLC

Simmons, Carrie

From: Kurtz, Sandra <S.Kurtz@musickpeeler.com>
Sent: Tuesday, February 25, 2020 1:46 PM
To: General Plan Update
Cc: McAvoy, Laura
Subject: Comments on Ventura County 2040 General Plan DEIR
Attachments: 2040 General Plan.pdf

Importance: High

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Dear Ms. Curtis, attached is a comment letter on behalf of Coast Ranch Family, LLC. Kindly confirm receipt of this letter.

Regards,

Sandra Kurtz
Assistant to Laura K. McAvoy

MusickPeeler

Musick, Peeler & Garrett LLP
2801 Townsgate Road Suite 200
Westlake Village, California 91361

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MusickPeeler

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LOS ANGELES
ORANGE COUNTY
SAN DIEGO
SAN FRANCISCO
SANTA BARBARA COUNTY
VENTURA COUNTY

FILE NO. 13084.021

February 25, 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

Ventura County Board of Supervisors
Attn: Susan Curtis, Manager, General Plan Update Section
General Plan Update
800 South Victoria Avenue L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County 2040 General Plan Draft Environmental Impact Report (State Clearinghouse No. #2019011026)

Dear Ms. Curtis:

On behalf of Coast Ranch Family, LLC ("Coast"), I write to you with comments concerning the Draft Environmental Impact Report for the 2040 General Plan ("DEIR"). Coast is a significant landowner and mineral owner in Ventura County and the lessor under operating oil and gas leases. Upon review of the DEIR, we conclude that it is deficient in a number of ways and we respectfully request that the DEIR be significantly revised and recirculated as required by the California Environmental Quality Act and the corresponding State CEQA guidelines.

Rather than repeat all of the deficiencies, we hereby incorporate by reference the detailed commentaries supplied to you by Aera Energy, LLC substantially concurrently with this letter as well as the comments from the Western States Petroleum Association and other operators of producing fields in Ventura County.

From an overview perspective, the single biggest defect is the failure to consider the economic consequences of various policies contained within the Draft Ventura County 2040 General Plan as depicted in the DEIR. The loss of royalty income to a significant number of lessors, the significant increased cost to the economy should oil and gas production be further negatively impacted, the loss of property tax revenue to the County, the failure to address the feasibility or more appropriately said the infeasibility of many of the measures contained in the DEIR, etc. render the DEIR as materially deficient and therefore in violation of CEQA.

We tried to be respectful of your time by not just repeating the detailed comments otherwise provided as referenced above, but please be assured that does not mean that those

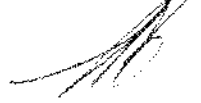
MusickPeeler

Ventura County Board of Supervisors
February 25, 2020
Page 2

comments are not significant and require deep attention in the form of a curing of the legal deficiencies and of recirculation of the DEIR prior to any approval of the 2040 General Plan.

Thank you for your attention to these comments.

Very truly yours,



Laura K. McAvoy
for MUSICK, PEELER & GARRETT LLP

LKM:srk
cc: Coast Ranch Family, LLC
1203509.1

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 1:54 PM
To: Simmons, Carrie
Subject: FW: Request for 90-Day Comment Deadline Extension on the DEIR for the Draft 2040 General Plan
Attachments: Request for 90 day Comment Period Extension_Wishtoyo.pdf

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



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From: Tevin Schmitt <tevin.wishtoyo@gmail.com>
Sent: Tuesday, February 25, 2020 1:36 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Request for 90-Day Comment Deadline Extension on the DEIR for the Draft 2040 General Plan

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Good afternoon Susan,

Please see attached letter requesting the extension of the comment period for the DEIR for the County of Ventura Draft 2040 General Plan.

Thank you for your consideration,

Tevin Schmitt
Watershed Scientist
Wishtoyo Chumash Foundation



February 25, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, California 93009-1740
susan.curtis@ventura.org
GeneralPlanUpdate@ventura.org

Request for 90-Day Comment Deadline Extension on the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan

Dear Susan Curtis,

The Wishtoyo Chumash Foundation respectfully requests an extension of the comment period for the Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan (State Clearinghouse No. 2019011026). The 45 day comment period, ending February 27th, imposes an inadequate deadline for the public to properly review the (1) Draft EIR which covers complicated issues in 598 pages and six appendices, and (2) the Draft General Plan which is 463 pages and four appendices.

In order for The Wishtoyo Foundation to meaningfully review the Draft General Plan and DEIR and ensure there are no significant potential impacts to natural cultural resources and the environment, we request that the County of Ventura extend the deadline to May 27th, 2020. This extended deadline will allow for a more comprehensive review of the Draft General Plan and DEIR.

Thank you for your consideration.

Respectfully,

A handwritten signature in black ink that reads "Tevin Schmitt". The signature is written in a cursive style.

Tevin Schmitt
Watershed Scientist
Wishtoyo Chumash Foundation
tschmitt@wishtoyo.org

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 2:21 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comments

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Margo Ferris <margoferris@gmail.com>
Sent: Tuesday, February 25, 2020 2:07 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comments

To: RMA Planning Division:

Thank you for your work on this DEIR, it takes time and dedication to get the document to this point. There are a few areas that are lacking in evidence and analysis when concerning the local oil and gas industry. I would like to see these serious issues addressed and corrected for a recirculated DEIR.

The proposed oil and gas setback policies are unnecessary, lack justification, and will only make the Ventura County homeless crisis worse. Multiple studies have failed to demonstrate negative public health effects as a result of oil and gas operations in California. The state which has the most stringent environmental standards for operations.

The DEIR relies too heavily on the unsettled legislation-AB 345- and incorrectly assumes that direction drilling is a viable setback mitigation option.

These misguided and flawed policies truly need to be corrected for a recirculated DEIR.

Thank You, Margo Ferris

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 2:21 PM
To: Simmons, Carrie
Subject: FW: COMMENT LETTER RE DRAFT DEIR TO COUNTY GENERAL PLAN 2020-2040
Attachments: DRAFT COMMENT LETTER.docx

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Margot Davis <wally97@hotmail.com>
Sent: Tuesday, February 25, 2020 2:20 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; Margot Davis <wally97@hotmail.com>
Subject: COMMENT LETTER RE DRAFT DEIR TO COUNTY GENERAL PLAN 2020-2040

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COMMENT LETTER RE DRAFT DEIR TO COUNTY GENERAL PLAN UPDATE 2020-2040

February 25, 2020

TO WHOM IT MAY CONCERN:

The DEIR fails to recognize the true impact of climate change. It fails to declare the existing state of climate emergency that the general plan must be formulated to address in 2020-2040. It fails to provide enough emissions reduction to meet, or even make a sizeable dent in, the California state mandated climate goals. It fails to include a CLIMATE ACTION PLAN with measurable targets and goals as a separate document as requested by CFROG, 350 and other climate activists.

The policies set in the general plan are not measurable or enforceable. Language used in the plan such as “encourage” or “support” rather than “require” or “mandate” is weak, insufficient and meaningless to meet acknowledged greenhouse gas reduction targets.

Furthermore, crucially, in the first place the DEIR is based on a wholly inadequate inventory of existing county emissions. The inventory was conducted from top down rather than bottom up and fails to include, or even consider, a significant portion of present emissions.

To the best of my information Ventura County is the third largest producer of fossil fuels of all California counties and California is the largest producer of fossil fuels of all the states. This can be said to place a high fiduciary duty on Ventura County, owed to the rest of life on planet Earth, to drastically reduce its greenhouse gas emissions (fossil fuel production) in the next five years.

ACTION NEEDED

- 1) Recognize and declare the global climate emergency as it exists in Ventura County today.
- 2) Reassess and make a complete bottom to top inventory of Ventura County greenhouse gas emissions at present.
- 3) Create a CLIMATE ACTION PLAN 2020-2040 with measurable targets and outcomes as a separate document.
- 4) Set clear climate action goals and mandate enforceable climate policies based on 1) and 2) above.
- 5) Rather than aim at 2040, start by aiming at 2025 and 2030, recognizing the urgency declared. As part of the CLIMATE ACTION PLAN include five and ten year climate emergency goals to be reached by 2025 and 2030.

FIVE AND TEN YEAR EMERGENCY CLIMATE GOALS

- A) Decrease total county greenhouse gas emissions that have been newly inventoried by 20% per year to zero emissions by 2025.
- B) Wind down existing discretionary oil and gas production 10% per year to zero fossil fuel production in Ventura County by 2030. Achieve this goal by starting with oil and gas facilities located within one mile buffer zones of schools, public parks, mobile home parks and homes.

- C) Flaring and venting toxic gases and climate pollutants like methane into the atmosphere by prohibited before 2025.
- D) All small gas engines used in agriculture and landscape businesses, as well as by private citizens (leaf blowers, edgers, mowers, hedge trimmers, etc.) which do not at all curb emissions, be banned and replaced by electric models before 2025. County should subsidize this transition to the extent possible by securing state, federal or private grant clean energy funding.
- E) Implement an agricultural policy in Ventura County requiring a transition to 100% regenerative farming, eliminating toxic pesticide use and including carbon sequestration by 2030.
- F) Implement a county policy requiring transition to full electric vehicles for all public transportation (buses, trolleys, county and municipal vehicles) by 2025.
- G) Implement a policy working with existing oil and gas industry facilities to train laid off workers and bring clean energy jobs and electric vehicle production to Ventura County.
- H) GREENHOUSE GAS SUPER EMITTERS : A recent NASA study documents that several Ventura County facilities, including oil and gas operations, make up approximately 26% of all emissions in California. The CLIMATE ACTION PLAN must include strong policies to detect and curb emissions from these super emitters by 2030.

Respectfully submitted,

Margot Davis

148 West Simpson

Ventura, CA 93001

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 2:21 PM
To: Simmons, Carrie
Subject: FW: COMMENT LETTER RE DRAFT DEIR TO COUNTY GENERAL PLAN 2020-2040
Attachments: DRAFT COMMENT LETTER.docx

Susan Curtis | Manager
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To: Curtis, Susan <Susan.Curtis@ventura.org>; Margot Davis <wally97@hotmail.com>
Subject: COMMENT LETTER RE DRAFT DEIR TO COUNTY GENERAL PLAN 2020-2040

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COMMENT LETTER RE DRAFT DEIR TO COUNTY GENERAL PLAN UPDATE 2020-2040

February 25, 2020

TO WHOM IT MAY CONCERN:

The DEIR fails to recognize the true impact of climate change. It fails to declare the existing state of climate emergency that the general plan must be formulated to address in 2020-2040. It fails to provide enough emissions reduction to meet, or even make a sizeable dent in, the California state mandated climate goals. It fails to include a CLIMATE ACTION PLAN with measurable targets and goals as a separate document as requested by CFROG, 350 and other climate activists.

The policies set in the general plan are not measurable or enforceable. Language used in the plan such as “encourage” or “support” rather than “require” or “mandate” is weak, insufficient and meaningless to meet acknowledged greenhouse gas reduction targets.

Furthermore, crucially, in the first place the DEIR is based on a wholly inadequate inventory of existing county emissions. The inventory was conducted from top down rather than bottom up and fails to include, or even consider, a significant portion of present emissions.

To the best of my information Ventura County is the third largest producer of fossil fuels of all California counties and California is the largest producer of fossil fuels of all the states. This can be said to place a high fiduciary duty on Ventura County, owed to the rest of life on planet Earth, to drastically reduce its greenhouse gas emissions (fossil fuel production) in the next five years.

ACTION NEEDED

- 1) Recognize and declare the global climate emergency as it exists in Ventura County today.
- 2) Reassess and make a complete bottom to top inventory of Ventura County greenhouse gas emissions at present.
- 3) Create a CLIMATE ACTION PLAN 2020-2040 with measurable targets and outcomes as a separate document.
- 4) Set clear climate action goals and mandate enforceable climate policies based on 1) and 2) above.
- 5) Rather than aim at 2040, start by aiming at 2025 and 2030, recognizing the urgency declared. As part of the CLIMATE ACTION PLAN include five and ten year climate emergency goals to be reached by 2025 and 2030.

FIVE AND TEN YEAR EMERGENCY CLIMATE GOALS

- A) Decrease total county greenhouse gas emissions that have been newly inventoried by 20% per year to zero emissions by 2025.
- B) Wind down existing discretionary oil and gas production 10% per year to zero fossil fuel production in Ventura County by 2030. Achieve this goal by starting with oil and gas facilities located within one mile buffer zones of schools, public parks, mobile home parks and homes.

- C) Flaring and venting toxic gases and climate pollutants like methane into the atmosphere by prohibited before 2025.
- D) All small gas engines used in agriculture and landscape businesses, as well as by private citizens (leaf blowers, edgers, mowers, hedge trimmers, etc.) which do not at all curb emissions, be banned and replaced by electric models before 2025. County should subsidize this transition to the extent possible by securing state, federal or private grant clean energy funding.
- E) Implement an agricultural policy in Ventura County requiring a transition to 100% regenerative farming, eliminating toxic pesticide use and including carbon sequestration by 2030.
- F) Implement a county policy requiring transition to full electric vehicles for all public transportation (buses, trolleys, county and municipal vehicles) by 2025.
- G) Implement a policy working with existing oil and gas industry facilities to train laid off workers and bring clean energy jobs and electric vehicle production to Ventura County.
- H) GREENHOUSE GAS SUPER EMITTERS : A recent NASA study documents that several Ventura County facilities, including oil and gas operations, make up approximately 26% of all emissions in California. The CLIMATE ACTION PLAN must include strong policies to detect and curb emissions from these super emitters by 2030.

Respectfully submitted,

Margot Davis

148 West Simpson

Ventura, CA 93001



RECEIVED
FEB 25 2020

BY:

February 25, 2020

VIA HAND DELIVERY

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Re: Comments on Ventura County 2040 General Plan Draft Environmental Report (State Clearinghouse No. #2019011026)

Dear Ms. Curtis:

On behalf of Aera Energy, LLC ("Aera"), thank you for the opportunity to review and comment on the Draft Environmental Impact Report prepared for the Ventura County 2040 General Plan Update ("DEIR"). Unfortunately, after reviewing the DEIR, we find it deficient in myriad ways and we respectfully request that the DEIR be significantly revised and recirculated, as required by the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq) ("CEQA") and the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15000 et seq.) ("CEQA Guidelines"). Given the DEIR's failure as an informational disclosure document and its failure to identify and impose all feasible mitigation measures, the DEIR, in its current form, cannot support approval of the County's proposed update to its current General Plan ("2040 General Plan"). The DEIR's legal deficiencies must be cured and it must be recirculated prior to any approval of the 2040 General Plan.

Aera is the largest onshore oil and gas producer in the County of Ventura ("County"), with oil and gas operations covering approximately 4,300 acres located largely in unincorporated areas northwest of the City of Ventura. Aera and its forerunner companies have been actively producing crude oil in the County since the 1920s. Aera is actively involved in the local County community, and is a longtime member of both the Chamber of Commerce and the County Economic Development Association. As a mineral resource owner, mineral resource lessee and a production operator in the County, Aera will be directly and substantially affected by the adequacy of environmental review undertaken in support of the 2040 General Plan as well as implementation of the 2040 General Plan.

I. CEQA STANDARD OF REVIEW

Public agency determinations as to the cause, effect, and significance of environmental impacts must be supported by substantial evidence. (Pub. Resources Code, § 21168.) A public agency abuses its discretion and fails to proceed in the manner required by law when its actions or decisions do not substantially comply with the requirements of CEQA. (Pub. Resources Code, §§ 21168, 21168.5.) An agency's application of an erroneous legal standard in making a CEQA determination also constitutes a failure to proceed as required by law. (*City of San Diego v. Board of Trustees of Cal. State University* (2015) 61 Cal.4th 945, 956.) Whether an environmental impact report ("EIR") fails to include the information necessary for an adequate analysis of an environmental issue is a question of law, and when reviewed by the courts, the courts do not defer to an agency's determinations. (*Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102 ["whether an EIR is sufficient as an informational document is a question of law subject to independent review by the courts"].) Failure to comply with the basic substantive requirements of CEQA is necessarily prejudicial error, requiring the decertification of any EIR and vacation of any project approvals adopted in reliance upon the same. (*North Coast Rivers Alliance v. Kawamura* (2015) 243 Cal.App.4th 647, 671.)

While program EIRs are necessarily broader in scope than project-level EIRs, they must still adhere to CEQA's requirements—significance determinations must still be supported by substantial evidence, program EIRs must still apply the correct legal standard to CEQA determinations, and program EIRs must still include all information necessary for an adequate analysis of environmental effects. (*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 431.) Use of a program EIR does not permit a lead agency to defer an analysis of reasonably foreseeable significant environmental impacts to a later stage of review to avoid addressing those impacts in the program EIR itself. (State CEQA Guidelines, § 15152(b).) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 109.)

Finally, where significant new information is added to an EIR after notice of public review has been given, but before final certification of the EIR, the lead agency must issue a new notice and recirculate the EIR for additional comments and consultation. (Pub. Resources Code, § 21092.1; State CEQA Guidelines, § 15088.5.) Recirculation is required when the addition of new information deprives the public of a meaningful opportunity to comment on substantial adverse project impacts or feasible mitigation measures or alternatives. (State CEQA Guidelines, § 15088.5(a); *Laurel Heights Improvement Association v. Regents of University of California* (1993) 6 Cal.4th 1112, 1130.)

II. GENERAL COMMENTS

A. Improper Piecemealing and Project Segmentation.

As discussed in additional detail below, the DEIR improperly segments its analysis of the County's 2040 General Plan from the pending update of the County Housing Element, and also improperly piecemeals analysis of the 2040 General Plan's implementation actions. CEQA makes it clear that public agencies must analyze the "whole of an action" that may result in a direct or reasonably foreseeable indirect impact. (State CEQA Guidelines, § 15378(a); see also *Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora* (2007) 155 Cal.App.4th 1214.) A public agency may not divide a single project into smaller individual subprojects to avoid responsibility for considering the environmental impact of the project as a whole. (*Orinda Association v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171.)

As the County is aware, the California Department of Housing and Community Development ("HCD") together with the Southern California Association of Governments ("SCAG") will issue a new Regional Housing Needs Allocation ("RHNA") for the County and the cities within the County later this year. The new RHNA will increase the housing needs allocation for the County significantly. As a result, almost every element of the General Plan, as amended, will be out of date once the new numbers are finalized. Land use designations established by the 2040 General Plan will need to be revised nearly immediately to accommodate the RHNA, which will have ripple effects through the DEIR's analyses of air quality emissions, greenhouse gas emissions, and traffic. For example, ignoring the imminent RHNA means that the trip and vehicle miles traveled estimates underpinning the DEIR's traffic analysis do not reflect the additional traffic created by the RHNA, both within the unincorporated areas of the County and within the region at large.

Similarly, beyond the RHNA, the Governor and the State Legislature have advanced significant new legislation intended to increase housing supply opportunities and facilitate the approval of new development by streamlining the housing development process and providing for limited review of developments that otherwise comply with local regulations. This recently adopted legislation and pending legislation will result in an increase in the production of new housing, potentially even beyond the RHNA projections. Thus, the County must table consideration of its 2040 General Plan until the County is in a position to update its Housing Element as part of that undertaking.

In addition to improperly engaging in segmentation in the context of the RHNA, the DEIR ignores the reasonably foreseeable implementation actions that will follow adoption of the 2040 General Plan, including, but not limited to, the adoption of a Zoning Code Update. While the DEIR generically describes the relationship between general

plans and zoning codes, it does not explain how the County's Zoning Code will be updated as a result of adopting the 2040 General Plan. Required zoning code updates resulting from the 2040 General Plan must be analyzed now, as part of this DEIR. Excluding reasonably foreseeable, let alone required, implementation actions from the DEIR's analysis constitutes a prejudicial error. (*McQueen v. Board of Directors* (1988) 202 Cal.App.3d 1136, 1144.)

To address both of these improper segmentation issues, the Project Description for the 2040 General Plan should be revised to be complete, and the DEIR analyses should be revised to assess and disclose the impacts of the entire "whole" of the 2040 General Plan.

B. Impermissibly Vague Project Description.

EIR project descriptions must be accurate, stable, consistent, complete, include all components of a proposed project, and include all foreseeable future activities that are consequences of the project to be approved. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199.) As described more fully below, the DEIR's Project Description does not meet this standard. In fact, it fails to even identify the location and buildout of the 15 new land use designations.¹ Furthermore, policies established by the General Plan are not identified or described with any level of specificity. The complete failure to provide a project description consistent with CEQA's procedural mandates unfortunately undermines each and every analysis contained within the DEIR. As such, the Project Description must be revised to include these details, the DEIR's impact analyses must likewise be revised and the DEIR must be recirculated.

C. Failure To Provide Adequately Detailed Analyses

As more fully discussed below, many sections of the DEIR include surprisingly little technical analysis or analysis of the feasibility of mitigation measures. The DEIR purposefully downplays the effect of numerous proposed mitigation measures and routinely defaults to a finding of significant and unavoidable impacts without any real analysis showing that the County considered all feasible mitigation measures and adequately analyzed whether impacts could be reduced. This, in effect, defers real analysis to future project level EIRs and is inconsistent with the goals of a program level EIR, which is to limit the need for future environmental analysis to the extent reasonably possible. (See CEQA Guidelines, § 15152(b); see also *Vineyard Area Citizens, supra*, 50 Cal.4th at p. 431 [program EIRs must still meet CEQA's mandates].)

¹ We also note that in some places, the DEIR states that the 2040 GPU only establishes 13 new land use designations, as opposed to 15. This inconsistency further underscores the DEIR's failure to provide an accurate and stable project description, consistent with CEQA's mandates. (Compare, e.g., p. 4.11-18 [describing 13 new land use designations] to p. 2-6 [describing 15 new land use designations].)

D. The DEIR Presumes The Imposition of Goals, Policies, Programs and Mitigation Measures That Are Legally Infeasible

Finally, as will also be more fully explored below, several goals and policies discussed in the DEIR and several mitigation measures proposed in the DEIR suffer from a variety of legal infirmities. Several goals and policies, if imposed, impair vested property rights and effectuate a taking under federal and state constitutional standards. Others are preempted by superior state law.

III. DETAILED COMMENTS

Aera's specific and detailed comments on the DEIR's individual chapters and sections are set forth below.

A. Introduction/Executive Summary

Page 1-2: The DEIR makes generic significant and unavoidable impact findings that should not be relied upon to permit future streamlining. The DEIR explains that subsequent development activities will be evaluated to determine whether they will result in "effects not within the scope of the program DEIR, including new or more severe significant impacts than identified in the project DEIR." Where subsequent activities will not result in more severe impacts, "additional environmental documents may not be required." Yet the DEIR vaguely claims myriad significant and unavoidable impacts, which could lead to later claims that projects "fall within the scope" of the program EIR because they too will result in significant impacts. This provides an avenue for the County to avoid project-level analysis, based on general and vague significant and unavoidable impact findings, unsupported by substantial evidence, in the DEIR. If the 2040 General Plan DEIR is truly intended to provide future streamlining for environmental impacts at the project level, the analyses must be expanded, all feasible mitigation measures identified, and determinations revised to rely upon and cite to substantial evidence. Such revisions require recirculation. (State CEQA Guidelines, § 15088.5.)

Page 1-4: The DEIR includes a biased and incomplete description of "areas of known controversy." The DEIR states that the key areas of concern identified during the DEIR Notice Of Preparation ("NOP") process "focused on two primary areas of concern: (1) climate change and greenhouse gases; and (2) the effects of continued oil and gas extraction...." But of the comments included in Appendix A, fewer than half focused on these issues exclusively.

Page 1-5: The DEIR presents an incomplete list of responsible and trustee agencies. The DEIR does not identify the California Geologic Energy Management

Division of the California Department of Conservation ("CalGEM") or the California Coastal Commission as responsible agencies. As explained above, the imminent Housing Element update should also be provided as part of the 2040 General Plan, and as a result, HCD should also be identified as a responsible agency. Trustee agencies identified in the DEIR should at least include the State Lands Commission, the California Department of Fish and Wildlife, the California Department of Parks and Recreation, and the Ventura County Air Pollution Control District, as each of these agencies has jurisdiction over resources affected by the 2040 General Plan. (State CEQA Guidelines, §§ 15381, 15386.) Identification of proper responsible and trustee agencies affect whether an EIR undergoes the required and proper consultation processes. Failure to do so results in a failure to proceed in the manner required by law. (Pub. Resources Code, §§ 21168, 21168.5.)

Page 2-11: The DEIR relies on erroneous growth projections. As discussed above, the growth projections identified in the DEIR will be at odds with the imminently forthcoming RHNA housing numbers assigned to the County and the region (the County will be obligated to produce *more* housing stock). As a result, the assumptions underpinning the DEIR's analyses will be inaccurate almost immediately. This is particularly concerning given that the DEIR's assumptions will be inaccurate because they *underestimate* growth from 2020 through 2040.

Page 2-12: Setting. The cross-reference to the Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020 (hereinafter, "Background Report") makes following the setting discussion in the DEIR cumbersome. A summary of the Background Report's setting discussion should be included in the DEIR.

Page 2-14: Areas of Controversy. Oil and gas production and the secondary effects of continued operations is highlighted as an area of controversy for many of the sections of the DEIR. However, many of the alleged controversial effects are the result of the County policies proposed to require the use of pipelines in oil and gas operations and not the existing operations themselves.

B. Project Description

Page 3-1: The DEIR's Project Description impermissibly relies on a separate 1,000+ page appendix. EIRs must include an accurate, stable, and consistent description of the Project. (State CEQA Guidelines, § 15124.) Here, the 2040 General Plan provides the planning and development blueprint for the entirety of the County -- yet the DEIR's Project Description is a scant 23 pages. For any real details, a reader is forced to parse through the more than 1,000 page Background Report, or the draft 2040 General Plan itself. But an EIR cannot rely on information that is not either included in the document or described in sufficient detail. (*Vineyard Area Citizens, supra*, 40 Cal.4th at p. 442.). An EIR should be written in a way that readers are not forced "to sift through obscure minutiae or appendices" to find important components of the project or analysis. (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 659.) Instead, CEQA contemplates that referenced documents be summarized in the text of the EIR.

Pages 3-4 through 20: The DEIR's Project Description is impermissibly vague. The DEIR's description of the 2040 General Plan is ambiguous and vague on a number of key points. Without these details, it is impossible to adequately assess the 2040 General Plan's potentially significant impacts. For example:

- The Project Description alternatively explains that the 2040 General Plan establishes either 13 or 15 new land use designations. (Compare, e.g., p. 4.11-18 [describing 13 new land use designations] to p. 2-6 [describing 15 new land use designations].)
- It is unclear to what extent these new designations will allow for more development than is presently allowed under the General Plan and Zoning Code. The DEIR states on the one hand that these designations "would be consistent with land use densities/intensities allowed under the current (2018) zoning designations for each affected parcel," but then, on the other hand, explains that the new designations will permit "relatively higher intensity residential, commercial, mixed use, and industrial land uses." (Compare pp. 3-4, 3-19, 4-2 [2040 General Plan will permit higher intensity development] with p. 3-4 [2040 General Plan will permit uses consistent with current zoning].)
- The Project Description explains that the 2040 General Plan establishes a wholly new land use designation for parks and recreational facilities, not currently permitted by the Zoning Code, but then also states that this designation will not be assigned to any specific parcel. (See p. 3-5.) Will this use be assigned to a specific parcel in the future? Where? When?

These details are required now in this DEIR to analyze the potential impacts of this new designation.

- The Project Description vaguely references new policies and states, without support, that they are consistent with the County's existing Guidelines for Orderly Development ("GFOD") and Save Open Space & Agricultural Resources ("SOAR") initiative. Yet, no details at all are provided to show that this is so. Without these details, there is no way to confirm whether these new policies will result in inconsistencies with GFOD and SOAR such that significant environmental impacts may occur.
- The Project Description contains only a "brief summary" of each element of the proposed 2040 General Plan. Yet these descriptions are wholly generic. There is no explanation as to what each element will actually do to either permit or prohibit development, or protect or impact resources. There is no hint of the types of goals, policies, and programs that are established in each element, or what is changing from the current General Plan and current Zoning Code. The Project Description should—at the very least—identify policy highlights and ordinances that the 2040 General Plan directs County decision makers to draft and adopt, and describe the type and extent of physical development that will likely be constructed under the 2040 General Plan. These are basic details necessary to assess the environmental impacts of the 2040 General Plan's adoption.
- The Project Description completely omits any estimate of potential and likely buildout. There is no way for a reader to determine how many acres of development, how many dwelling units, or how many square feet of non-residential development is anticipated under the 2040 General Plan. Instead, the Project Description contains only vague and inconsistent statements about the 2040 General Plan permitting "relatively higher intensity" residential, commercial, mixed use and industrial land use designations. (See p. 3-19.) Yet details such as where this higher intensity development will occur, or how much higher intensity the development will be, is wholly missing. Without this information, how can the impacts of such development be analyzed in the DEIR?
- The Project Description fails to even allude to the County's Local Coastal Program ("LCP"), or describe whether and how the 2040 General Plan affects the LCP, a key component of the County's long-range land use planning.

Page 3-5: Preparing a DEIR for the 2040 General Plan while excluding any and all completely foreseeable implementation actions, such as a zoning code

update, results in improper piecemealing and project segmentation. The DEIR generically describes the relationship between general plans and zoning codes, but does not explain whether the County's Zoning Code must be amended as a result of the GPU, and if so, when that will occur. In fact, the DEIR expressly states that at least one new zoning code designation "would be established" "separate from the General Plan Update project as part of the 2040 General Plan's implementation." Required zoning code updates resulting from approval of this Project must be analyzed now, as part of this DEIR. Excluding reasonably foreseeable (let alone required) implementation actions from analysis in this DEIR is a procedural error. (See *McQueen v. Board of Directors*, *supra*, 202 Cal.App.3d at p. 1144.)

Pages 3-6 and 3-11: Preparing a DEIR for the 2040 General Plan before the Housing Element is completed results in improper piecemealing and project segmentation. The DEIR states that draft RHNA numbers will be released in February 2020, which is during the public review period for the DEIR. Accommodation of the County's RHNA could lead to the re-designation of one or several parcels within the County, or the revision/deletion/addition of general plan goals and policies. Therefore, the RHNA's accommodation should be considered as part of this project and analyzed in this DEIR. In fact, on page 3-6, the DEIR even expressly explains that the GPU and the RHNA/Housing Element are two parts of the same land use "alternative" identified through the community outreach for this 2040 General Plan. Separating the 2040 General Plan from the RHNA/Housing Element results in an incomplete and inaccurate project description. Had the 2040 General Plan and the RHNA/Housing Element been analyzed together, the analysis might show that certain aspects of the 2040 General Plan are infeasible, or will have greater impacts than are described in this DEIR. This is precisely why CEQA prohibits dividing a single project into smaller individual subprojects to avoid considering the total environmental impacts of the project as a whole. (State CEQA Guidelines, § 15378(a); see also *Orinda Association v. Board of Supervisors*, *supra*, 182 Cal.App.3d at p. 1171.)

The DEIR's use of an Housing Element "placeholder" does not remedy, and in fact just further highlights the error of, improperly segmenting out the impending Housing Element Update. As explained above, the County is well aware that RHNA allocation increase will significantly affect most of the other elements of the draft 2040 General Plan and its environmental analysis. Including a "placeholder" element results in a meaningless and inaccurate Project Description and further undercuts the DEIR's ability to adequately analyze environmental impacts.

C. Environmental Setting

Pages 4-1 and 4-2: An EIR must describe existing environmental conditions in the vicinity of the proposed project. (State CEQA Guidelines, § 15125.) The DEIR's description of the environmental setting and baseline is inadequate on myriad grounds.

First, it impermissibly buries all description of the existing environmental setting in a 1,000+ page appendix, in direct contravention of CEQA's mandates. CEQA requires that the data in an EIR be presented in a manner that adequately informs the public and decision makers, and forcing readers "to sift through obscure minutiae and appendices" to find out what environmental baseline the DEIR assumes and applies is a failure to proceed in the manner required by law. (*San Joaquin Raptor Rescue Center v. County of Merced, supra*, 149 Cal.App.4th 645, 659.) Instead of distilling the information underpinning the entirety of the DEIR's technical analyses, the DEIR refers its readers "to the Background Report for all other setting information." Yet the Background Report is more than 1,000 pages long, not including its own appendices, and is not organized in a way that coincides with the chapters of the DEIR. Even where an EIR relies on underlying data and analysis in an EIR appendix, the body of the EIR itself must at least include a salient summary of the key issues. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

Second, the DEIR makes vague reference to an assumed growth rate, but provides no substantive evidence explaining why the assumed growth rate is the most appropriate and reasonable assumption to underpin the DEIR's analyses. (See p. 4-1.) Instead, the DEIR states only that the growth rate was chosen by direction of the County Board of Supervisors – but this does not constitute substantial evidence. (See State CEQA Guidelines, § 15384 [substantial evidence includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts].)

Similarly, the DEIR states that the DEIR's analyses are "based on buildout of the plan area" but nowhere in the DEIR's Project Description does it actually identify what buildout would be. Not only is the amount of buildout unclear, but the timing of buildout is unclear as well. The DEIR goes on to say that this unspecified buildout "is not anticipated to occur within the planning horizon" but then also does not explain what is anticipated to occur within the planning horizon. By completely failing to identify the key assumptions underpinning the environmental analysis, it is impossible for a reader to assess whether the DEIR's conclusions are sound. The DEIR thus fails as an informational document.

D. Aesthetics

Pages 4.1-1, 4.1-3 and 4.1-10: The analysis omits relevant aspects of the regulatory setting. The aesthetics analysis completely omits any reference to federal and state regulations that affect aesthetic resources. Similarly, the discussion of the local regulatory setting focuses only on lighting regulations. While some of the missing information is included in the Background Report, a reader cannot be expected to hunt for information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.) At the very least, the regulatory setting must be

expanded to identify and describe the National Scenic Byways Program, the California Scenic Highway Program, state historic preservation programs, the California Building Code, local development standards, regulation of development on hillsides, regulation of historic buildings, guidelines and standards relating to architecture, and regulation of signs beyond illumination. Further, even including the buried regulatory discussion in the Background Report, there is no discussion of historic preservation policies and programs, architectural design, grading ordinances, tree protection, or other regulatory schemes that have significant relation to aesthetics. Omitting any discussion of these types of regulations, failing to analyze whether the proposed project is consistent with them, and failing to disclose whether any inconsistencies will result in potentially significant impacts, results in an inadequate aesthetics analysis.

Page 4.1-12: The DEIR fails to include any details of the existing environmental setting, and even the Background Report appended to the DEIR fails to adequately describe existing conditions. The DEIR states that the Background Report appended to the DEIR “describes the environmental setting for the purpose of this evaluation.” For all the reasons articulated above, the DEIR must summarize the key aspects of the environmental setting in the body of the EIR. However, even the existing conditions description in the Background Report is inadequate. There is no discussion of the existing visual character – only general references to scenic resources. This may be because the DEIR does not actually include any analysis of impacts to existing visual character, as discussed below, however this is salient information relating to existing conditions and baseline. Visual character includes not only natural resources, but urban and recreational features, including roads, utilities, structures, oil and gas facilities, and other results of human activities. Instead, the Background Report reads only as a generic list of existing visual resources, with no discussion of visual quality, view shed, aesthetic values, or viewer sensitivity – all key to understanding the potential for aesthetic impacts resulting from the 2040 General Plan.

More specifically, there is no discussion of existing oil and gas facilities, or their relationship to scenic resources. DEIR page 4.1-1 expressly identifies aesthetics relating to oil and gas facilities as the subject of comments received during the NOP period, yet there is no discussion of those issues, or the existing setting relevant to those issues, in the DEIR or Background Report.

Page 4.1-13: The DEIR does not include any analysis of impacts to existing visual character. The DEIR identifies four thresholds for determining impacts to aesthetic resources, but these thresholds do not align with, and omit, thresholds included in the most recent version of the Appendix G checklist, which the County seems to have never adopted, as required by State CEQA Guidelines § 15022, subdivision (c). Appendix G threshold I(c) requires analysis of whether the project would, “in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings?” Yet the DEIR wholly fails to address any

changes in existing visual character, failing to disclose any such impacts (or lack thereof) to the public or decision makers.

E. Agriculture and Forestry Resources

Page 4.2-4: The Thresholds are over inclusive. The threshold includes Farmland of Local Importance which is not among the types of farmland specified in Appendix G of the CEQA Guidelines as requiring mitigation. The DEIR provides no analysis or justification for exceeding the criteria in Appendix G. The addition of this category will require the creation of additional conservation easements as “mitigation” for the loss of this category of farmland that may or may not be available as mitigation and may impact the ability of the County to meet other objectives such as those that may be included in the update of the County’s Housing Element. How much of this category of farmland is located outside of the SOAR’s growth limits? If it is significant, requiring the establishment of conservation easements over this land or requiring mitigation for its conversion may well adversely impact the ability of the County to meet its housing obligations. There is no analysis of the feasibility of this measure as required by CEQA. Accordingly, this proposed measure is illusory as there is no substantial evidence to support its feasibility. *See Cleveland Nat’l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

Page 4.2-16: Mitigation Measure AG-1 is vague and unenforceable. There is no analysis of how discretionary development can be conditioned to avoid direct loss of Important Farmland. *See Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 262, 261. This measure too is illusory and not supported by substantial evidence as required by CEQA.

Page 4.2-16: Mitigation Measure AG-2 lacks substantial evidence of its feasibility. This mitigation measure provides for the use of off-site agricultural conservation easements at a 2-1 ratio as mitigation for the loss of the categorized agricultural land. The use of off-site conservation easements over existing agricultural land has been broadly criticized since it does not result in any replacement of lost farmland. The easements would only apply to other existing agricultural lands. There is no analysis of the feasibility of this measure, which is doubtful since the owners of the other agricultural lands will have to agree to the imposition of the conservation easements and there is no assurance that there will be sufficient willing owners of agricultural lands to agree to these restrictions at the level required. There is no evaluation of the existence of other agricultural lands that might be available for the acquisition of conservation easements. Accordingly, this proposed measure is illusory as there is no substantial evidence to support its feasibility. *See Cleveland Nat’l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

F. Air Quality

Page 4.3-3: It is unclear how much construction is anticipated as a result of the 2040 General Plan buildout. The DEIR states that “because construction associated with buildout under the 2040 General Plan would generate temporary criteria pollutant emissions, primarily due to the operation of construction equipment... emissions have been estimated in this analysis, and are based on the anticipated amount of development under buildout the [sic] 2040 General Plan.” But, as discussed above regarding the Project Description, there is no statement of what buildout would actually be. How many new dwelling units, how many square feet of new non-residential uses, and where will these be located? These are all details fundamental to the DEIR’s analysis of air quality impacts and their omission makes it impossible for a reader to assess the DEIR’s impact determinations.

Page 4.3-3: There is no substantial evidence supporting the County’s underlying growth assumptions. The DEIR states that “[a]lthough the exact timing of construction activity over this period is unknown, for the purposes of modeling, it was assumed that development would occur gradually in equal annual increments over this time period.” However, no explanation is provided for why this is the most reasonable assumption upon which to pin the analysis. (See State CEQA Guidelines, § 15384(b) [substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts].) Growth typically does not occur gradually, in equal measure over a ten year period. There are likely to be high and low years of construction and development. By assuming a straight linear projection, the analysis ignores true construction impacts (i.e. maximum daily emissions) associated with development in “boom” years. As a result, construction generated air quality impacts are likely undercounted.

Page 4.3-4: The buildout numbers underlying the air quality analysis are nowhere to be found in the DEIR’s Project Description. The DEIR’s air quality analysis assumes construction of 1,125 single family dwelling units, 156 multifamily dwelling units, and specific square footage numbers for several other non-residential land uses. Yet these buildout numbers are not discussed anywhere within the DEIR’s Project Description and will soon be out of date when the new RHNA allocations are adopted. A reader cannot be expected to search deep within the DEIR’s analyses to determine the basic facts of what is proposed– i.e., how many dwelling units and how much square footage of development is likely to occur under the 2040 General Plan. Because there are no additional details provided as to where these buildout numbers come from, it is also unclear whether these numbers represent the maximums allowable under the 2040 General Plan, or whether the County is assuming some smaller subset is what is actually

likely to be constructed.² Because a reader cannot determine what exactly is being analyzed and why, the significance determinations of the air quality analysis are rendered meaningless. (See *Napa Citizens for Honest Govt. v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 359 [at the very least, an EIR must contain an explanation of the reasoning supporting the EIR's impact findings, and the supporting evidence].)

Page 4.3-8: The air quality impacts analysis improperly relies on implementation of proposed General Plan policies that are infeasible or preempted. The air quality analysis relies upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include, but may not be limited to, proposed policies COS-7.1, 7.3, 7.4, 7.7, and 7.8. If an impact's significance determination is based upon the application of policies or programs that will not actually come to pass, the impact analysis is inherently flawed. (See, e.g., *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [mitigation measures must actually be enforceable].)

Pages 4.3-13 and 4.3-15: The DEIR fails to identify or apply any significance threshold for PM₁₀, a criteria pollutant for which the air basin is in nonattainment status. The DEIR states that construction emissions could contribute to the County's existing nonattainment condition for PM₁₀, and as a result, could cause adverse health impacts due to increased exposure to PM₁₀. Yet, pursuant to DEIR Table 4.3-2, the County does not identify any significance threshold for PM₁₀, as required by CEQA. There is no way for a reader to know whether the 20.4 lb/day estimated construction emissions of PM₁₀ are significant when compared to an objective bright-line threshold. Even though the DEIR goes on to assume that the 20.4 lb/day of PM₁₀ emissions are potentially significant, without a threshold, a reader has no way to understand how significant the impact could be, or the order of magnitude of the emissions. (See *Laurel Heights Improvement Association v. Regents of University of California* (1988) 47 Cal.3d 376, 404 [a bare conclusion without an explanation of its factual and analytical basis is not a sufficient analysis of an environmental impact]; see also *San Francisco Baykeeper, Inc. v. State Lands Commission* (2015) 242 Cal.App.4th 202, 227 [CEQA requires agencies to make a policy judgment about how to distinguish adverse impacts deemed significant from those deemed not significant].)

² The text on page 4.3-4 also explains that some information "specific to the 2040 General Plan" was available and thus inputted into the air quality emissions modeling, and then also states that where specific information was not available, CalEEMod defaults were used. The text reads: "See Table 4.3-1, below, for a full list of land use assumptions used for the modeling." Yet the only "assumptions" presented in Table 4.3-1 are the assumed dwelling units and square footages – which, as described above, are presented without any context. None of these seem to be defaults or information "specific to the 2040 General Plan." Again, this is just another example of how the DEIR is vague and inconsistent, and it is impossible for a reader to decipher what assumptions underpin the impacts analysis and why.

Further, the issue of the missing PM10 significance threshold is compounded by the DEIR's proposed Mitigation Measure AQ-1b, which adds Implementation Program HAZ-X: Construction Air Pollutant Best Management Practices, to the 2040 General Plan. This program requires "applicants for future discretionary development projects that would generate construction-related emissions that exceed applicable thresholds" include certain best management practices ("BMPs"). However, if there is no applicable threshold for PM10, how will the County, or applicants, determine when BMPs to reduce PM10 are required? The same comment applies to Mitigation Measure AQ-2a, which adds new policy HAZ-X, which states, "The County shall ensure that discretionary development which will generate fugitive dust emissions during construction activities will, to the extent feasible, incorporate BMPs that reduce emissions to be less than applicable thresholds." This is nonsensical, considering that the DEIR expressly states that there is no applicable threshold for PM10 or PM2.5 (i.e. fugitive dust). Again, the same comment also applies to Mitigation Measure AQ-2b, which adds new implementation program HAZ-X, which also establishes certain criteria to be applied when fugitive dust emissions "exceed the applicable thresholds." Without any identified threshold, these mitigation measures are wholly ineffective. (See *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1168 [mitigation measures' efficacy must be apparent and supported by substantial evidence].)

Page 4.3-15: Several of the air quality impact mitigation measures are limited to only "the extent feasible" which severely limits their effectiveness. All mitigation measures identified under DEIR Impact 4.3-2 are only applicable "to the extent feasible." Including this caveat makes each measure ineffective. Mitigation measures must be concrete and enforceable, and the addition of "to the extent feasible" language makes these commitments meaningless. (*Federation of Hillside & Canyon Associations v. City of L.A.* (2000) 83 Cal.App.4th 1252, 1260 [mitigation measures must not be remote or speculative].)

Page 4.3-15: Implementation Program HAZ-X relating to fugitive dust is duplicative. We request that the first two bullet points be revised to reduce duplication.

Page 4.3-17: The DEIR fails to apply a threshold to the mitigated daily emissions associated with PM 10 and PM2.5, fails to apply all feasible mitigation measures, and adds so many caveats to its final significance determination that the DEIR's air quality conclusions are essentially meaningless. The DEIR concludes that, with the application of the proposed mitigation measures, PM10 and PM2.5 emissions will be reduced, but still fails to apply any type of threshold to the reduced amounts. Similarly, the mitigation measures' reduction of ROG and NOx emissions do not reduce emissions below the significance threshold for Ojai Valley. Yet there is no explanation as to why there are no additional feasible mitigation measures that can be added to reduce these impacts to less than significant. An EIR cannot simply label an impact significant without this discussion and analysis; to do so would "allow[] the lead agency to travel the

legally impermissible easy road to CEQA compliance.” (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1370 [EIR must provide a description and full analysis of a project's significant impacts].)

Page 4.3-17: The DEIR fails to include any meaningful analysis of health impacts associated with project exceedances of operational thresholds. CEQA mandates that an EIR discuss the potential health effects of significant air pollutant emissions. Here, the entirety of the discussion correlating the operational emissions to health impacts reads: “[T]he 2040 General Plan’s contribution to operational criteria air pollutants and precursors could result in greater acute or chronic health impacts compared to existing conditions.” This falls woefully short of what is required, which is a meaningful connection between the levels of pollutants that would be emitted by the completed Project, and adverse human health effects. (*Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 517-522.)

Page 4.3-18: No operational threshold is identified for CO, PM10 or PM2.5. The DEIR states that the 2040 General Plan is anticipated to result in 502 lb/day of CO, 320.9 lb/day of PM10, and 87.5 lb/day of PM2.5 emissions. Yet no significance threshold is provided for any of these three pollutants. Without a threshold, a reader has no context for determining whether these impacts are significant, and how significant they are. While the text goes on to assume that these are significant amounts of three pollutants, it is not enough to declare a project significant without providing any context showing how significant (how many orders of magnitude) the impact will actually be. (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners, supra*, 91 Cal.App.4th at p. 1370.)

Page 4.3-18: Analysis of operational emissions relies on several policies that are likely infeasible because they violate private property rights and/or are preempted by state and local law. The DEIR explains that it is relying on several new policies applicable to oil and gas facilities, to reduce operational emissions. However, there is no explanation as to why the County believes these new policies are feasible. The policies, among other things, require new oil wells to use pipelines to convey oil and produced water, and prohibits venting or flaring except in cases of emergency or for testing purposes. These policies are likely not feasible and preempted by state and federal law.

Page 4.3-19: Analysis of operational impacts concludes that operational emissions are “unknown” without any explanation as to why that is so. The DEIR concludes that while some policies in the 2040 General Plan would reduce criteria air pollutant and precursor emissions, “it is unknown if emission levels from future development would be reduced below the VCAPCD countywide and Ojai Valley thresholds.” However, Table 4.3-4 identifies ROG and NOx emissions levels that exceed the VCAPD thresholds by substantial amounts. It seems clear that future development

will exceed these thresholds prior to the application of mitigation measures, and therefore, the DEIR should so state. (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners, supra*, 91 Cal.App.4th at p. 1370.)

Page 4.3-19: The DEIR fails to identify feasible mitigation measures, and defers mitigation to later individual projects. CEQA requires a good faith reasoned explanation when an agency determines that there are no feasible mitigation measures to apply to a potentially significant impact. Here, the DEIR states, without explanation, that no feasible mitigation is available to reduce operational air quality impacts.

Page 4.3-21: Nonsensical “one-way” setback requirements. The DEIR identifies new policies that prohibit siting new oil and gas facilities within 1,500 feet of any residential unit and 2,500 feet from any school (up from 500 feet and 800 feet, respectively, in the current Code), and claims that this new setback requirement reduces the potential of exposing sensitive receptors to toxic air contaminant emissions. However there is no mention of prohibiting additional residential units within these new setback areas. There is no explanation as to why the former reduces potential impacts, but the latter would not. Further, there is no description of which air contaminants sensitive receptors will now be less exposed to, or what the significance is of this reduction. Mitigation measures must have a reasonable relationship or nexus between a project’s impacts and the measure or condition that is imposed. (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825; *Dolan v. Tigard* (1994) 512 U.S. 374.)

G. Biological Resources

Page 4.4-1: The analysis omits relevant aspects of the regulatory setting. As with the other environmental analyses sections, the salient aspects of the regulatory setting should not be buried in an EIR appendix, but clearly presented in the body of the DEIR. (See *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

Pages 4.4-2 through 10: The DEIR’s presentation of affected sensitive species is impermissibly unclear. There is no single presentation of all sensitive species affected by the 2040 General Plan. Instead, a reader must piece together sensitive species lists presented in both the Background Report appended to the EIR, and lists presented in the DEIR chapter. It is unclear why there is no single list of sensitive species available to a reader and obscures the environmental baseline upon which impacts to biological resources is based.

Page 4.4-10: The DEIR impermissibly punts analysis of wildlife nursery sites to future analysis. The DEIR acknowledges that CEQA requires analysis of impacts relating to native wildlife nursery sites, but then goes on to state that these sites “are not mapped for the plan area and would need to be identified and evaluated at a project-

specific level.” The DEIR cannot just decide to ignore and defer identification of existing conditions or analysis of a particular impact. CEQA requires that the County put forward its best good faith effort at analyzing impacts, or else explain, with substantial evidence, why such an impact cannot be analyzed or is too speculative to analyze. (See *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Ca.3d 376, 410.) The DEIR fails to do either.

Page 4.4-14: The DEIR lacks any analysis or significance determination for impacts relating to Habitat Conservation Plans (“HCPs”) or Natural Communities Conservation Plans (“NCCPs”). The DEIR states that there are no HCPs or NCCPs within the plan area – yet never makes an affirmative significance determination. A reader should not be forced to assume the County is making a “no impact” or “less than significant impact” finding, where the DEIR does not so state.

Page 4.4-22: The DEIR impermissibly punts biological resource mitigation for impacts to special status species and habitats to the resource agencies. The DEIR claims that project-specific mitigation measures would reduce impacts to special-status species to less than significant because they would be “developed consistent with applicable state and federal requirements” and follow standards established by the California Department of Fish and Wildlife (“CDFW”). But CEQA case law specifically prohibits deferring mitigation to resource agencies. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal.App.4th 645, 671 [an EIR cannot avoid studying impacts to biological resources by proposing a plan to mitigate presumed impacts based on future studies].)

Page 4.4-24: Mitigation measures do not actually address several of the identified types of impacts. The impact analysis for Impact 4.4-1 identifies several potential types of impacts to sensitive species, including spread of invasive non-native species that out-compete native species or alter habitats. Yet no mitigation is provided to address this identified impact. No aspect of Mitigation Measure BIO-1 addresses nonnative and invasive species or the harms caused by the same. Mitigation measures must address the actual impact identified, or else an explanation must be given as to why mitigation is not feasible. (State CEQA Guidelines, §§ 15121(a), 15126.4(a).) This comment also applies to the other impacts identified in this chapter, as they all rely upon this single mitigation measure.

Page 4.4-26: The DEIR impermissibly punts biological resource mitigation for impacts to riparian habitats to the resource agencies. The DEIR relies on future project-level review by CDFW and the California Coastal Commission to protect riparian habitat and ESHA. The DEIR reads, “Specifically, CDFW or the California Coastal Commission would not permit a project that would degrade these habitats without compensatory mitigation to fully mitigate for the significant impact.” But CEQA case

law expressly prohibits relying on future review by resource agencies to reduce impacts. Under this line of reasoning, no project would ever have significant impacts on riparian habitats or ESHA, making CEQA's directive to the lead agency (here, the County) to analyze and mitigate biological impacts completely meaningless. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal.App.4th 645, 671 [mitigation deferral to future resource agency permitting review not appropriate where result expected is undefined].)

Page 4.4-27: The DEIR implies that if the General Plan included policies that specifically guided focused surveys for sensitive habitat, specific avoidance measures, or compensation requirements, this would further reduce impacts – but then fails to add a mitigation measure actually requiring that the General Plan do this. The DEIR concludes that impacts to riparian habitats and environmental sensitive habitat areas (“ESHA”) are significant and unavoidable, but then also implies that if the 2040 General Plan added these certain performance standards, this would reduce impacts. Yet the 2040 General Plan does not go on to do so, and no explanation is given as to why these performance measures cannot be included. Even where an impact is significant and unavoidable, an agency still has the obligation to assign all reasonable and feasible mitigation measures that would reduce those impacts, even if they would not be reduced to a level of less than significant. (State CEQA Guidelines, § 15126.2(b).) This comment also applies to the other biological impacts identified in this section of the DEIR.

H. Cultural, Tribal Cultural, and Paleontological Resources

Page 4.5-16: The DEIR concludes that the impact of architectural resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding is based on speculation that the mitigation measures may not be sufficient in every case. CEQA Guidelines Section 15091(a) provides that findings must be supported by substantial evidence. As previously noted, an EIR cannot simply label an impact significant without this discussion and analysis; to do so would “allow the lead agency to travel the legally impermissible easy road to CEQA compliance.” (*Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1370 [EIR must provide a description and full analysis of a project's significant impacts].) As noted in the general comments, this lack of analysis in effect simply defers all mitigation to project level environmental analysis. This is not the proper function of a program level EIR.

Page 4.5-21: The DEIR concludes that the impact on historical resources will be significant and unavoidable despite the inclusion of standard mitigation

measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding is also based on speculation that the mitigation measures may not be sufficient in every case.

Page 4.5-24: As with the impacts in architectural and historic resources, the DEIR concludes that the impact on tribal cultural resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding suffers from the same lack of real analysis as with regard to Impacts 4.5-1 and -2 and is based on speculation that the mitigation measures may not be sufficient in every case.

Page 4.5-26: As with all of the other impacts in this section, the DEIR concludes that the impact on paleontological resources will be significant and unavoidable despite the inclusion of standard mitigation measures that are typically applied to projects and found to be adequate as mitigation of potential impacts on archeological resources. This finding suffers from the same lack of real analysis as with regard to all of the other impacts in this section and is based on speculation that the mitigation measures may not be sufficient in every case.

I. Energy

Page 4.6-4: The DEIR's discussion of environmental setting/environmental baseline is incomplete at best, non-existent at worst. The less than five page Background Report, combined with the DEIR's discussion of climate change does not amount to a clear, informative picture of what is going on within the County in terms of energy consumption, energy mix and energy efficiency, today, under the current General Plan. Such a discussion is critical to a legally adequate discussion of the environmental setting. (See *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713.) As such, it is impossible to judge whether implementation of the 2040 General Plan will have a beneficial, adverse or neutral impact on energy resources, and the DEIR's energy analysis is wholly deficient.

Pages 4.6-18 through 22: The DEIR fails to apply the two required energy significance thresholds identified in Appendix G of the State CEQA Guidelines. The DEIR states that it will qualitatively evaluate two distinct significance thresholds in its energy impacts analysis: (1) whether the project will result in inefficient/wasteful energy consumption, and (2) whether the project will conflict with state or local plans. However, the DEIR then conflates these thresholds into a single analysis concerning only wasteful consumption. No analysis is provided relating to whether the 2040 General Plan conflicts with state or local plans relating to energy. This analysis must be provided in a recirculated DEIR for public review and comment.

Page 4.6-19: The DEIR fails to adequately identify policies that will reduce impacts relating to wasteful and inefficient energy consumption. The DEIR lists myriad policies that are ostensibly relevant to energy conservation (see DEIR pp. 4.6-7 to 7.6-18); however, the DEIR only identifies two proposed policies (COS-8.7 and COS-U) for ensuring that there is no wasteful or inefficient energy consumption across the entire 2040 General Plan area for the next 20 years.

Page 4.6-20: The DEIR's conclusions regarding energy consumption are unfounded. The DEIR states that it cannot quantify the effectiveness of energy conservation features for future development, but nevertheless concludes, without evidence, that future development under the 2040 General Plan will not unnecessarily expend energy. The analysis should be revised to include substantial evidence supporting this conclusion, and recirculated.

Pages 4.6-21 through 22: The DEIR's conclusions regarding consistency with statewide plans and policies is unfounded. The DEIR's conclusion that there will be consistency with all applicable state renewable policies, without identification of the policies or analysis of the 2040 General Plan against those policies is legally deficient. The analysis should be revised to include substantial evidence supporting this conclusion, and recirculated.

Background Report, p. 8-80 to 85: The Background Report's description of the environmental setting is drastically inaccurate and inadequate. The entirety of the Background Report's description of the existing energy resources and industry within the County is woefully inadequate. The entire discussion is less than five pages in length, and is devoid of any meaningful amount of data on energy source mix, County energy consumption, or other standard information that the public and decision makers need to understand the existing setting, environmental baseline, and impact analysis. Specific information that is in error or wholly missing includes, but is not limited to, any discussion of oil and gas based energy production and consumption within the County, any discussion of natural gas consumption within the County, and any discussion of the use of natural gas to fuel power plants and produce the electricity consumed by County residents. Finally, the discussion's estimate of energy employment within the County is a drastic underestimate. As set forth in the publically available study entitled "Economic and Tax Revenue Impacts of Oil Production in Ventura County," there are approximately 900 individuals employed by oil and gas explorers and producers within the County. That is more than double the amount disclosed by the DEIR.

J. Geologic Hazards

Page 4.7-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for

information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

K. Greenhouse Gas Emissions

Page 4.8-6: The DEIR's greenhouse gas reduction targets are not based on substantial evidence and violate CEQA case law. The DEIR explains that the Climate Action Plan ("CAP") developed as part of the 2040 General Plan applies the same targets to Ventura County as the state has adopted for all of California. This approach wholly ignores regional differences, which is an approach to local CAPs that courts have struck down in myriad cases. (See, e.g., *Golden Door Properties, LLC v. County of San Diego* (2018) 27 Cal.App.5th 892, 905; *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 225.) Courts have explained that local reduction goals cannot be based on statewide metrics and instead must explain why applying statewide data and reduction targets is appropriate for setting the metrics in the local region (here, Ventura County). Here, there is absolutely no substantial evidence supporting the application of the 40% and 80% statewide targets to Ventura County. This analysis should be done, incorporated into a revised DEIR, and recirculated for public review and comment.

Page 4.8-8: Greenhouse gas emissions thresholds identified in the DEIR for application to future projects are not supported with substantial evidence. The DEIR identifies two threshold "options" with which to analyze future projects, but neither is supported with substantial evidence. Both are also based on 2020 statewide targets. Yet, it is 2020 now and so these targets are wholly inappropriate for any project that is not built out before this year. Second, they are based on statewide criteria, which is inconsistent with CEQA case law requiring substantial evidence tying statewide reduction targets to the local context. (See, e.g., *Golden Door Properties, LLC v. County of San Diego* (2018) 27 Cal.App.5th 892, 905; *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 225.) The DEIR implies that it is fine to rely on these thresholds because they are identified (albeit not adopted) by Ventura County Air Pollution Control District. While CEQA permits borrowing thresholds from regulatory agencies, they must nonetheless be supported by substantial evidence. Here there is no substantial evidence provided in the DEIR supporting use of these thresholds.

Pages 4.8-11 through 37: Several identified General Plan policies are infeasible or preempted. The greenhouse gas emissions analysis relies upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include policies COS-7.2, 7.4, and 7.7, and implementation program M (oil and gas operations tax). Taking credit for policies that

are more than likely to be either struck down or that are simply infeasible results in an erroneous analysis, not based upon substantial evidence. (See, e.g., *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [mitigation measures must actually be enforceable].)

Page 4.8-39: The DEIR's greenhouse gas emissions analysis applies the wrong horizon year. It is unclear why the DEIR focuses on reductions by 2030, when the planning horizon for the GPU is 2040. DEIR Table 4.8-5 summarizes the assumed greenhouse gas emissions reductions by 2030, but not 2040, which is the planning horizon for the 2040 General Plan. The analysis should therefore be revised to consider the 2040 General Plan's consistency with the state's reduction targets, as applied to the year 2040.

L. Hazards, Hazardous Materials, and Wildfire

Page 4.9-1 through 2: As with most other sections of the Regulatory Setting and Environmental Setting sections of the DEIR impermissibly relies on a separate 1,000+ page appendix. See general comments on this deficiency.

Page 4.9-9: County Policy HAZ-7.1 is noted as requiring that the County review and analyze all proposed oil and gas exploration and production wells and projects and shall require compliance with all local, state and federal oil spill prevention regulations. This policy is inconsistent with the fact that local regulation of oil and gas exploration and production is largely the subject of preemption. Moreover, as previously noted, CEQA case law specifically prohibits deferring mitigation to resource agencies. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 157 Cal.App.4th 645, 671 [an EIR cannot avoid studying impacts to biological resources by proposing a plan to mitigate presumed impacts based on future studies].)

Page 4.9-11 through 12: The discussion under Impact 4.9-1 fails to consider the existing oil and gas operations and the potential impact of new County policies. It is noted that oil and gas wells are among the uses permitted in the Rural and Open Space land use designation, which in turn includes approximately 98 percent of County land, but there is no discussion of what percentage of these lands are actually used for oil and gas production. It should be noted that a very small percentage of land is actually utilized for these operations. This section also notes that the potential for new pipeline construction and operation may be increased by the new 2040 General Plan policies limiting trucking as a means of transporting oil and gas from a new discretionary well. There is no discussion of the potential impact of constructing and operating new pipelines or the feasibility of this measure. How will right-of-way be acquired from offsite property? What legal constraints exist on located pipelines within or adjacent to sensitive land uses including residential areas? Is the true intent of this policy the elimination of

new oil and gas production uses? Nor is there any discussion of the alleged impact of the existing trucking of oil and gas products with regard to hazards or hazardous materials.

County Policies HAZ-5.2, HAZ-5.5, HAZ 5.8 and HAZ 7.1 and County Implementation Programs K and L are noted as providing guidance for the location, operation, and management of discretionary development including oil and gas exploration and production such that future sites would reduce impacts to public health and the environment but there is no analysis of how these policies may operate to reduce the impacts to a less than significant level. This finding is not supported by substantial evidence as required by law.

Page 4.9-14 through 16: The discussion under Impacts 4.9-2 and 4.9-3 similarly references County Policies HAZ-5.2, HAZ-5.5, HAZ 5.8 and HAZ 7.1. and County Implementation Programs K and L with no analysis of how these policies and programs would reduce potential impacts to a less than significant level. An EIR must contain an explanation of the reasoning supporting the EIR's impact findings, and the supporting evidence. (*See Napa Citizens for Honest Govt. v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 359.)

M. Hydrology

Pages 4.10-6 through 7: The DEIR fails to consider impacts associated with prohibiting development in certain locations and impacts associated with water usage. Proposed policies HAZ 2.1, and 4.14, and the DEIR's discussion of water wells, fails to account for or analyze the potential for environmental impacts. Restricting growth in certain development areas is likely to push development elsewhere, resulting in impacts that are not disclosed in this analysis.

Pages 4.10-9 through 10: The DEIR fails to support its conclusions regarding water quality and overdraft with substantial evidence. The analysis does not link its impacts determination to the effectiveness of GSPs and Ordinance 4468 to ensure impact is less than significant. There is no evidence supporting the conclusion that GSP/Ordinance 4468 compliance will ensure less than significant impacts. To the contrary, a cursory examination indicates that mere compliance will not be adequate. The GSPs have not even been developed (see DEIR p. 4.10-6) and no performance standards are identified for any proposed GSP. Ordinance 4468 is a groundwater pollution control ordinance (see Section 4811) and does not actually prohibit all drilling of new wells, which could lead to overdraft. (*See <http://pwportal.ventura.org/WPD/docs/Groundwater-Resources/Well%20Ordinance%20No.%204468.pdf>*.) Further, the DEIR punts impact analysis to a future date, and also presents internal inconsistencies in its analysis of Impact 4.10-3. Specifically, the DEIR states that compliance with GSPs will ensure no

over-extraction in unknown basins, but then also states that impact analysis cannot be performed at this time. This is then followed by the DEIR's unsupported less than significant impact conclusion (see 4.10.11). Given these inconsistencies, this analysis should be revised to include and cite to substantial evidence, and recirculated for public review and comment.

Page 4.10-13: The DEIR does not adequately analyze impacts to water for consumptive use. The analysis of Impact 4.10-6 relies upon an uncertain and unstable water supply, calling into question the DEIR's impact significance determination here.

N. Land Use Planning

Background Report p. 3-47: The DEIR does not analyze or reconcile the inconsistency between the 2040 General Plan and the Ventura Avenue Plan. The Ventura Avenue Plan clearly contemplates protection and expansion of oilfield uses, while the 2040 General Plan's goals, policies and programs do not. There is no analysis of this inconsistency, and instead, the DEIR makes the false assertion that the 2040 General Plan is consistent with the Ventura Avenue Plan. This analysis should be revised and recirculated for public review and comment.

Background Report, pp. 3-89, 3-90 and 3-97: As discussed previously, the DEIR's failure to address and analyze the impacts of up-zoning to meet future housing needs results in improper segmentation. The DEIR concedes that the County cannot meet post-2020 housing growth needs and commercial growth needs, and concedes that "up-zoning" would be required to meet anticipated RHNA housing obligations. However, the DEIR is devoid of any analysis regarding this apparent conflict. The reasonably foreseeable "up-zoning" needs to be analyzed as part of this Project and this analysis. (State CEQA Guidelines, §§ 15126, 15165 [when a project will be implemented in phases, the EIR must discuss and analyze the effects of the entire project].) As noted elsewhere, the underlying development potential methodology utilizes outdated (2014) RHNA numbers which effectively masks the disparity between "potential" and actual development that will take place through horizon 2040, burying the magnitude of the potential for land use impacts.

Page 4.11-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for information buried in a more than 1,000 page technical appendix when this information is foundational to the environmental analysis. The land use chapter of the Background Report is more than 135 pages, not including an attachment. A reader has to do significant digging just to find the relevant regulatory setting, which should be presented upfront, in the body of the DEIR. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.)

Page 4.11-2: The DEIR fails to cite to substantial evidence to support several of its land use impact conclusions. For example, the DEIR states, “In determining the level of significance, this analysis assumes that the 2040 General Plan would comply with relevant Guidelines for Orderly Development, greenbelt agreements, and the Save Open Space & Agricultural Resources (SOAR) initiative measure for Ventura County’s unincorporated areas.” But this conclusory statement is not supported with any analysis. See above comments on the Project Description relating to substantial evidence supporting the conclusion that the Project Description is consistent with these documents.

Page 4.11-2: The DEIR fails to analyze internal inconsistency, or consistency between the 2040 General Plan and the existing Area Plans that are not amended. The DEIR states that Threshold 25(1) asks whether the Project is consistent with the community character policies and development standards in the Ventura County General Plan goals, policies and programs, or applicable Area Plan. The DEIR goes on to explain that this threshold will not be considered in this DEIR because “this draft EIR is an evaluation of an update to the Ventura County General Plan goals, policies and programs, and Area Plans under which future projects would be evaluated.” However, failing to analyze this threshold means that there is no analysis of internal consistency. The Project Description chapter of the DEIR explains that very few changes are made to the Area Plans, therefore the Land Use & Planning chapter of the DEIR should consider whether the changes in the land use designations are consistent with all policies that are unchanged. See comment above regarding the Ventura Avenue Plan’s protection and expansion of oil field uses.

Page 4.11-3: The DEIR’s land use analysis relies on an unclear project description. General Plan Policy LU-1.2 generally describes the “Urban” and “Existing Community” area designations. But, as discussed above, the DEIR Project Description states that these designations are being replaced by 15 different and more specific land use designations. Therefore the Project Description and this policy are inconsistent. If the 2040 General is replacing the Urban and Existing Community designations with new designations, why is Policy LU-1.2 still a part of the 2040 General Plan? The same comment applies to Policy LU-2.1 and LU-3.1 through 3.3. If one of the salient features of the 2040 General Plan is to replace these general designations with more specific designations, these policies just further muddy the water on what exactly the Project Description is. Without a stable and consistent project description, there can be no legally defensible analysis of environmental impacts. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185.)

Page 4.11-6: The DEIR’s assumptions regarding the RHNA undermine the Project Description and analysis of land use impacts. 2040 General Plan Policy LU-1.3 states that the County will work with SCAG “to direct state regional housing needs allocations predominantly to cities...” However, as discussed above in regards to improper segmentation, the RHNA methodology is already available and estimates a

significant number of new units to be accommodated within the unincorporated county. Further, cities are likely to push back on their significantly higher RHNA allocations, and push those units out to the County such that the final number will likely be even greater. For all these reasons, and the ones identified in our comments on the Project Description, the entirety of the GPU should be paused until the RHNA allocations are finalized. See also comments above regarding Background Report pp. 3-89 to 3-90, 3-97.

Page 4.11-6: The DEIR fails to consider or analyze reasonably foreseeable implementation actions. 2040 General Plan Policy LU-4.2 requires zoning consistency between the GP and the zoning code. See comments above regarding improper segmentation and failing to consider reasonably foreseeable (and legally required!) implementation actions as part of “the project” for purposes of CEQA. See also, Implementation Program B, which requires that the County “review and amend, as necessary, applicable ordinances and regulations to ensure consistency with the General Plan, including the Zoning Ordinances and Building Code.” These policies further illustrate the DEIR’s inconsistency with CEQA’s mandates, which require analysis of the “whole” project. (State CEQA Guidelines, § 15378(a); see also *Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora* (2007) 155 Cal.App.4th 1214.)

Page 4.11-14: The DEIR relies on a 2040 General Plan Policy that is likely inconsistent with vested rights and/or preempted by state or federal law. Policy LU-17.4 prohibits the introduction of new incompatible land use and environmental hazards that would have health implications into or abutting existing residential areas, in particular within designated disadvantaged communities.” Yet there are no details provided as to what constitutes a health implication and no explanation as to why there is no similar prohibition against introducing new residential uses adjacent to land currently (or likely to be in the future) dedicated to oil and gas use.

Page 4.11-18: The DEIR fails to analyze the land use impacts (and all other impacts) associated with the new 2040 General Plan land use designations. The 2040 General Plan creates 13 new land use categories (or 15, given that the Project Description is inconsistent between sections of the DEIR) with distinct development standards—yet there is no real analysis of how the installation of the 13 or 15 new use classes that did not previously exist would not create a conflict with uses established pursuant to the six use designations established in the current General Plan. Notably, the DEIR concedes that the new land use classifications will result in development at a higher intensity in locations where residential, commercial, and industrial uses exist. Yet there is no explanation of how this intensification will be accomplished to avoid incompatibility. (As has been the case throughout the DEIR, Section 4.11 consists of a laundry list of LU policies, but, when it comes to explaining the role those policies play in avoiding or mitigating a potential impact (e.g. incompatible uses), the DEIR fails to provide that critical explanation/analysis.)

Page 4.11-21: The DEIR's vague and inconsistent Project Description results in unsupported conclusions regarding land use compatibility. The DEIR states that "Policies LU-4.1 and LU-4.2 would reduce incompatible land uses by specifying densities and/or intensities of allowed uses within each land use designation and maintaining continuity with neighboring zoning, land uses, and parcel sizes." But neither of these policies do this, or specify densities or intensities in any way. Therefore, it is unclear how the significance conclusion is supported. Similarly, the DEIR states that Policy LU-6.1 reduces incompatibilities by "specifying buffers" but this policy does not specify any performance criteria or distance criteria at all. It only states generally and generically that "adequate buffers" be incorporated into non-agricultural uses adjacent to agricultural uses.

Page 4.11-22: The DEIR's analysis and conclusions regarding division of an established community are not based on substantial evidence. The DEIR relies on only one policy (promotion of orderly and compact development) to ensure that there will be no division of established communities. Yet, this is not enough substantial evidence to support the significance conclusion. The DEIR does not even acknowledge that foreseeable infrastructure improvements caused by intensification of growth in a confined space will, at minimum create temporary divisions and disruptions during construction (e.g., trenching to upsized infrastructure, road closures to improve streets). Thus, it is unclear how the conclusion that impacts are less than significant can be supported.

Pages 4.11-22 through 24: The DEIR cannot conclude that the 2040 General Plan is consistent with the RHNA when the 2040 General Plan includes only a "placeholder housing element" and improperly segments the Housing Element and accommodation of the RHNA from its Project Description. The DEIR states that "Implementation of the 2040 General Plan policies and programs listed above, coordination of the RHNA with housing element updates, and compliance with applicable regulations would ensure that development under the 2040 General Plan is consistent with the RHNA." This essentially argues that the 2040 General Plan is consistent with the RHNA because the County will change the General Plan in the very near future to accommodate the RHNA. This is nonsensical. For all the reasons provided in our comments on the Project Description, the RHNA, which is imminent and by the County's own estimate will be released while the DEIR is out for public review, accommodating the RHNA may likely require changing the designations identified in the 2040 General Plan. This undermines the meaning and reliability of the DEIR's impact analyses. This is exactly why CEQA prohibits improper segmentation of related projects. (See *Orinda Association v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171.)

Pages 4.11-18 through 24: Even though the 2040 General Plan will provide the land use and planning blueprint for the entire County for the next 20 years, the land use impacts analysis is a mere seven pages. This alone indicates that the impact analysis is so truncated as to be meaningless. Further, regarding analysis of Impact 4.11-

13, there are presumably a number of plans/policies adopted for purposes of environmental protection that were not considered in the DEIR—the DEIR lists a mere handful of plans and policies. In most EIRs, this analysis is much more thorough.

O. Mineral and Petroleum Resources

Background Report p. 8-71: The Background Report Drastically Underestimates Known, Recoverable Oil and Gas Reserves Mischaracterizes Oil and Gas as Not Within the Definition of “Mineral Resources.” It does not appear that the County considered Aera’s historic production and known reserves. This critical omission causes the DEIR to underestimate County-wide oil and gas reserves. Additionally, it appears that the County eschewed accepted methodological practices in estimating oil and gas reserves so as to further underestimate the volume of and value of these known recoverable resources. Finally, the DEIR appears to treat oil and gas as a resource separate and apart from aggregate mineral resources (such as sand and gravel) for purposes of determining the consequences of adopting GP 2040. Under CEQA, the DEIR must fully and fairly disclose whether adoption of GP 2040 will result in the loss of availability of a known mineral resources—this includes the loss of oil and gas as well as the loss of sand, gravel or other minerals utilized in concrete production.

Pages 4.12-1 through 4: The DEIR lacks an adequate description of the existing regulatory setting. The DEIR seems to disclose only those federal and state agencies that regulate pipelines and flaring. This is, at best, only a fraction of the regulatory framework relevant to oil, gas, and mineral production.

Pages 4.12-5 through 6: The impact assessment methodology is based on incomplete and inaccurate underlying data. The 2040 General Plan relies upon a four year old map of petroleum field locations, not reserve locations. The boundaries of a field do not indicate the known extent of recoverable sub-surface reserves. This results in a significant underestimate of impacts on extraction.

Page 4.12-7: The DEIR makes a bare conclusory statement that the 2040 General Plan is consistent with and will not impair the implementation of any mineral resource goal/policy in any of the Area plans. However, a cursory examination of the County’s North Ventura Avenue Plan (“NVAP”) reveals that this bare assertion is incorrect. The NVAP contemplates new and expanded oilfield development within land specifically zoned for such development. *See* NVAP at page 12. How is this overarching development consistent with the goals and policies of GP 2040 aimed at phasing out the extraction and production of oil and gas in the County?

Page 4.12-8: The DEIR relies upon legally infeasible policies. As discussed earlier, several of the policies relied upon in the DEIR are likely legally infeasible, and therefore cannot provide a basis upon which to analyze impacts. Specifically, Policies

COS-7.2 and 7.3 likely amount to regulatory takings. Under COS-7.3, modification of a previously issued permit would wrongfully subject the permittee to compliance with current development constraints across the entire permit area. In other words, the request to drill one well on a 1000 acre permit site would trigger compliance with all new regulations across the entire site, despite the minor nature of the request. Moreover, Policies COS-7.7 and 7.8 are preempted, as a local agency cannot eliminate the use of trucking of oil or limit flaring to County-defined instances of “testing” or “emergency.” Those activities are governed by state and federal law.

Page 4.12-10: The DEIR’s conclusions for Impact 4.12-1 are unsupported. The DEIR states that residential and industrial uses will be installed in a major mineral resource zone (MRZ-2), but inexplicably concludes that the impact is less than significant. There are no facts or analysis supporting this conclusion.

Page 4.12-11: The DEIR’s conclusion of less than significant with respect to mineral resources is contradicted by the DEIR’s own supporting Background Report. The DEIR concedes that more than half of the 2040 General Plan area is MRZ 3a/b. The DEIR’s Background Report states that such lands have mineral value as follows: “MRZ-3: Areas containing known mineral deposits that may qualify as mineral resources (3a) or areas containing inferred mineral deposits that may qualify as mineral resources (3b). Further exploration work within these areas could result in the reclassification of specific localities into the MRZ-2 category.” The DEIR’s less than significant conclusion is wholly unsupported, as development will necessarily impact MRZ 3 resources, and these zones contain inferred mineral deposits.

Page 4.12-12: The DEIR’s reliance on the 2018 County of Los Angeles Report is unfounded. The DEIR proposes the imposition of various measures and policies based on the alleged human health findings contained in a report referred to as “County of Los Angeles. 2018. Public Health Safety Risks of Oil and Gas Facilities in Los Angeles County. Los Angeles County DPH” (hereinafter “2018 County of Los Angeles Report”). The preparers of this report have themselves disputed the validity of the report’s conclusions. As such, the 2018 County of Los Angeles Report does not amount to substantial evidence supporting the DEIR’s imposition of measures and policies to allegedly protect human health.

Pages 4.12-11 through 19: The DEIR fails to put forth a good faith effort at mitigating significant impacts to oil and gas resources. The DEIR fairly concludes that 2040 General Plan Policy COS-7.2 will have an adverse and significant and unavoidable impact on oil and gas exploration and production. Additionally, as already noted above, it arguably constitutes a regulatory taking. However, there is no meaningful effort made to mitigate this significant impact. The fundamental purpose of an EIR is to identify ways in which a proposed project’s significant environmental effects can be mitigated or avoided. (Pub. Resources Code, §§ 21002.1(a), 21061.) Therefore,

declaring an impact significant does not absolve a lead agency from identifying and adopting all feasible mitigation measures, if those measures do not reduce impacts to a level of less than significant. Further, the reasonably foreseeable indirect impacts of implementation of Policy COA-7.2 are not evaluated in any way in the DEIR. Foreign importation of oil increases greenhouse gas emissions and air quality degradation. Even if those impacts were to occur outside of the County's boundary, CEQA mandates that the County analyze and disclose these impacts in this DEIR. (See State CEQA Guidelines, § 15358(a)(2).) None of the proposed mitigation measures reduce these potentially significant impacts to less than significant.

Page 4.12-22: The DEIR fails to analyze and disclose reasonably foreseeable indirect impacts associated with several of the 2040 General Plan's proposed policies. The DEIR ignores the foreseeable adverse consequences associated with large scale installation of oil and gas pipelines, which would include, but not be limited to, soils/geology, hydrology and water quality, cultural and hazards impacts. (See *Laurel Heights Improvement Association v. Regents of Univ. of California* (1988) 47 Cal.3d 376, 396 [EIR must analyze any action if it is a reasonable, foreseeable consequence of the project].) None of the proposed mitigation measures reduce these potentially significant impacts to less than significant.

P. Noise and Vibration

Page 4.13-5: The methodology utilized to assess operational impacts fails to consider potential significant increases in traffic projected to occur as a result of the new RHNA allocation in the region and state housing legislation and policies. As discussed in the comments on the Transportation and Traffic Section, this analysis should await the final RHNA numbers and the update of the County Housing Element.

Page 4.13-23: The discussion under Impact 4.13-4 lists oil supply facilities among major industrial noise sources. The only support for this assertion is a reference to the Background Report. The Background Report, however, includes no analysis or justification for this conclusion, and the DEIR is likewise devoid of any evidence supporting this conclusion. As such, the DEIR does not, and cannot, demonstrate that oil and gas production generates noise above and beyond the noise levels generated by general industrial activities.

Page 4.13-27: County Policy HAZ 9.2 provides for specific noise control measures applicable to new noise generators located near sensitive uses but fails to restrict the development of new sensitive uses adjacent to areas where new noise generators are permitted uses. Policy HAZ 9.2 does not go far enough in mitigating potential noise impacts on sensitive uses. Absent policies addressing the location of new sensitive uses, the County policy can only serve as a limitation on the development of otherwise permitted uses such as oil and gas production uses. Mitigation measures must

have a reasonable relationship or nexus between a project's impacts and the measure or condition that is imposed. (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825; *Dolan v. Tigard* (1994) 512 U.S. 374.) Implementation of this policy may well result in a regulatory taking of property interests to the extent that they would deprive property of investment backed expectations.

Q. Population/Housing

Page 4.14-1: The DEIR omits relevant aspects of the regulatory setting. As with the other analysis sections of the DEIR, a reader cannot be expected to hunt for information buried in a more than 1,000+ page technical appendix when this information is foundational to the environmental analysis. (*Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 540.) Further, even taking the Background Report into account, there is no discussion of Senate Bill 330, which has significant population and housing repercussions that must be taken into account as part of the DEIR's analysis.

Pages 4.14-6 through 8: The DEIR fails to account for the impending RHNA numbers, and this results in improper segmentation and piecemealing. See previous comments on this topic.

R. Public Services and Recreation

Page 4.15-1: As with other sections of the DEIR, this section does not reflect the likely increases in population that will result in the upcoming RHNA allocations to the County and to cities within the County. See previous comments on this topic.

S. Transportation and Traffic

Page 4.16-4: The VMT estimates in Table 4.16 are not reflective of the additional traffic that will be created by the new RHNA allocations both within the County and in the region and new state legislation and policies that are intended to increase housing production. Regional traffic is significant because the threshold included in the DEIR include regional traffic in the baseline. Projected increases in housing are significant and will generate significant increases in regional VMT which in turn will impact traffic within the unincorporated County.

4.16-7 through 8: The proposed thresholds are not really thresholds of significance. The purported threshold that assumes a reduction of VMT by 15% below existing projected levels is really proposed mitigation, not a threshold of significance. Even so, this approach is subject to numerous objections, not the least of which is that it is aspirational social engineering based on stated state goals with respect to GHG reduction and not potential environmental impacts. There is no analysis of the feasibility

of achieving a 15% reduction in VMT on a project-by-project basis. A failure to address the issue of feasibility renders this analysis illusory. There is no substantial evidence to support its feasibility. See *Cleveland Nat'l Forest Foundation v. San Diego Assn of Governments* (2017) 17 Cal.App.5th 413, 433.

Page 4.16-10 through 11: The use of the existing baseline is flawed based on the potential significant increases projected to occur as a result of the new RHNA and state housing legislation and policies. This analysis should await the final RHNA numbers and the update of the County Housing Element. Moreover, this threshold is likely to obsolete in view of the fact that the DEIR notes that this threshold will no longer apply once the Ventura County ISAG VMT thresholds are adopted which is likely to occur prior to June 30, 2020, when VMT analysis becomes mandatory.

Page 4.16-12 through 13: The proposed General Plan polices seem to improperly conflate VMT standards with LOS standards. Proposed Policy CTM-1.1 bases an acceptable level of service on VMT impacts yet fails to address previous County policies that base level of service impacts on specified congestion related impacts (LOS standard). Is it the intent of the County to ignore proposed congestion impacts and, if so, how will proposed Policy CTM-1.7 be implemented so as to require discretionary projects to share the cost of added trips and improvements to the road system per the County traffic mitigation program? Under VMT theory congestion is good as it serves to promote reductions in VMT by encouraging high density development and the use of alternative means of transportation. What improvements are contemplated as mitigation?

Page 4.16-15: How will the County comply with the provisions of the Congestion Management Program as required by Government Code Section 65088 et seq. Proposed Policies CTM-2.7 and CTM-2.8 contemplate that the County will cooperate with Ventura County Transportation Commission in complying with the provisions of Government Code Section 65088 et seq regarding Congestion Management Programs (CMPs). The management of congestion per the CMP specifically includes the use of LOS standards, not VMT.

Page 4.16-23: The DEIR analysis that asserts that the new 2040 General Plan Policy addressing flaring and trucking associated with new discretionary oil and gas wells would result in a potential reduction in VMT in the County is not supported by substantial evidence. This analysis is flawed in that heavy trucks are not among the categories of VMT included in the OPR recommended threshold. (Office of Planning and Research, Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) at page 4).

Page 4.16-24: The forecasts set forth in Table 4.16-4 similarly fail to consider likely increases in VMT throughout the region based on the proposed new RHNA

allocations for the County and cities within the County and are not supported by substantial evidence. Table 4.16-4 purports to be a 2040 forecast, but, as with other portions of the DEIR, fails to account for the much higher RHNA numbers that will be applied in the region and as a result fails to provide an adequate basis for the thresholds identified in Table 4.16-5, which in turn results in a default to a finding of significant and unavoidable impacts for impacts 4.16-1 and 2.

T. CUMULATIVE IMPACTS

Aera's comments regarding cumulative impacts are addressed in the individual topics identified above. However, generally, the DEIR fails to adequately consider whether the Project's individual impacts, when considered in the context of other projects proposed within the County, the region, and the individual incorporated cities within the County, results in cumulatively considerable environmental impacts. This includes whether the RHNA numbers that will be assigned not just to the County, but to the individual incorporated cities within the County, will result in new projects, new general plan amendments, new zoning amendments, or other policy changes that, together with the proposed 2040 General Plan, will result in cumulative impacts relating to air quality, greenhouse gases, noise, traffic, aesthetics, mineral resources, and biological impacts, among others.

U. ALTERNATIVES

Page 6-1: The Alternatives analysis is flawed in its failure to account for new RHNA allocations and housing legislation. The underlying land use policies are subject to change in the near future as a result of pending increases in the regional RHNA allocations and State housing policy. Like most other sections in the DEIR, it is premature to consider alternatives to the project in advance of the issuance of the final RHNA allocations in the region and an analysis of the impact of State housing policy on land use within the County.

Page 6-1: The Alternatives Section is flawed due to the DEIR's failure to adequately disclose and mitigate significant and unavoidable impacts. CEQA requires that public agencies do their best to disclose the actual severity of significant impacts, and implement and enforce all feasible mitigation measures to reduce significant impacts. As described above, this DEIR declares several impacts "significant and unavoidable" without meaningful analysis, or a true good faith examination of feasible mitigation measures. Because CEQA mandates that the project alternatives identified and analyzed in an EIR be based on what can feasibly reduce significant and unavoidable impacts, when those impact analyses are flawed, so too is the alternatives analysis.

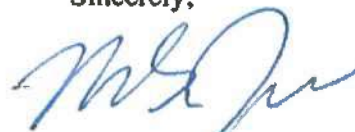
III. CONCLUSION AND REQUEST FOR RECIRCULATION

As described above, the DEIR is deficient in myriad ways and we respectfully request that it be significantly revised and recirculated, as required by CEQA and the State CEQA Guidelines. Recirculation is required when new information is added to an EIR after notice of public review has already been given, and that new information requires additional review by the public. (Pub. Resources Code, § 21092.1.) Where new information added to an EIR is "significant", recirculation is required. (*Ibid.*) Where new information shows a new impact, a substantial increase in the severity of an impact, a new feasible alternative or mitigation measure, or where the DEIR previously circulated was so fundamentally inadequate and conclusory in nature that public comment was essentially meaningless, the new information added to the EIR is "significant." (*Laurel Heights Improvement Association v. Regents of Univ. of Cal.* (1993) 6 Cal.4th 1112, 1130; State CEQA Guidelines, § 15088.5(a).) Further, where the previously circulated EIR wholesale omitted key information necessary to actually determine what a proposed project's potentially significant impacts would be, recirculation is required. (*Mountain Lion Coalition v. Fish & Game Commission* (1989) 214 Cal.App.3d 1043; *Save Our Peninsula Comm. v. Monterey County Bd. of Supers.* (2001) 87 Cal.App.4th 99, 131.)

Again, Aera appreciates the opportunity to review and comment upon the DEIR, and looks forward to seeing the recirculated report in the near future. As requested, we are providing the name of our point of contact, mailing address and email address as follows:

Michele Newell
3382 N. Ventura Avenue
Ventura, CA 93001
E-mail: MLNEWELL@AERAENERGY.COM

Sincerely,



Michael S. James
Senior Counsel
Aera Energy, LLC



RECEIVED
FEB 25 2020

BY:

February 24, 2020

VIA ELECTRONIC MAIL

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Re: *Comments on Ventura County 2040 General Plan Draft Environmental Impact Report (State Clearinghouse No. #2019011026)*

Dear Ms. Curtis:

On behalf of Aera Energy, LLC (“Aera”), we respectfully submit the enclosed comments on the Draft Environmental Impact Report (“DEIR”) prepared for the County of Ventura’s (“County”) proposed update to its existing General Plan (“GP 2040”).

As you may already know, Aera is the largest onshore oil and gas producer in the County, as well as its ninth largest tax-payer. Aera’s production operations within the County also generate significant downstream revenue for local businesses. In 2018, Aera’s local business expenditures exceeded forty million dollars. Aera’s daily production activities involve nearly one hundred full-time employees and several hundred contractors and vendors, all of whom in turn contribute to the long-term economic health and vitality of the County.

Our review of the DEIR has disclosed several categories of concern. As you are aware, the County must disclose and meaningfully evaluate all foreseeable direct and indirect physical consequences of its proposed action—the adoption of GP 2040. Based on our review of the DEIR, it is clear that the County has failed to fulfill its obligation in this regard. For example:

- In evaluating the consequences of adopting GP 2040, the DEIR relies on incomplete, erroneous or scientifically discredited information;
- In evaluating the consequences of adopting GP 2040, the DEIR ignores readily foreseeable impacts and/or misstates the severity of impacts;
- The DEIR proposes mitigation measures, the implementation of which is infeasible for a variety of known technological, legal and economic reasons;
- The DEIR and the Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020 (hereinafter, “Background

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager
February 24, 2020
Page 2

Report”) are incomplete with respect to their discussions of the environmental setting and regulatory setting; and

- The DEIR and Background Report fail to disclose and consider the fact that several proposed policies, implementing programs and mitigation measures are preempted by state and federal law and/or cannot be carried out without unlawfully impairing vested property rights.

We address these categories of concern in further detail in the Table of DEIR and Background Report Comments enclosed herewith and incorporated herein by reference.

In an effort to improve the technical and textual accuracy and adequacy of the DEIR and Background Report, as well as the GP 2040 Policies and Goals described therein, we have included several comments, proposed revisions and clarification requests in the enclosed Table of DEIR and Background Report Comments. We ask that this letter and all enclosed materials be included in the record of proceedings in this matter and carefully considered by the County.

Finally, it is our expectation that the extensive comments noted herein will be given the same careful consideration as comments submitted by others outside our industry, given the importance of this document to the current and future residents of Ventura County. It is our expectation that complete and thoughtful responses will be prepared for each of the comments enclosed herewith, and the DEIR will be revised and recirculated accordingly. A mere “comment noted or comment received” will not suffice. We look forward to working with County staff to resolve the issues addressed herein and we further look forward to recirculation of a DEIR that meets the applicable legal standards.

As requested, we are providing the name of our point of contact, mailing address and email address as follows:

William J. Spear III, Manager of Operations
3382 N. Ventura Avenue
Ventura, CA 93001
E-mail: WJSpear@aeraenergy.com

Sincerely,



William J. Spear III
Ventura Manager of Operations
Aera Energy, LLC



Table of DEIR and Background Report Comments

| Document & Page No. | Comment/Proposed Revision/Clarification Request |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DEIR: pg. 4.1-16 | Policy NV-1.12. The DEIR does not address the consequences of shifting the “scenic approach” designation to Canada Larga and Ventura Ave. Such a shift is expected to conflict with the long terms use objectives of the North Ventura Ave Area Plan, which are industrial in nature. |
| DEIR: pg. 4.1-23 | The DEIR does not disclose the impacts associated with implementation of Program J itself, nor does it disclose whether Program J implementation would adversely impact the existing built environment, foreseeable future development or introduce conflicting use pattern objectives. Additionally, the DEIR does not disclose which highways would be affected by implementation, which makes it impossible to evaluate the scope of impact. |
| DEIR: pg. 4.1-23 | The DEIR does not acknowledge or address the fact that certain facilities (such as oil and gas drill sites) cannot be sited so they are not readily seen, given known drilling and operational constraints. Such realities should be considered in the DEIR. |
| DEIR: pg. 4.1-25 | In its discussion of Open Space, the DEIR states that development is “to be sited and designed to prevent significant degradation of a scenic view or vista.” Again, the DEIR does not consider the fact that various authorized uses can only be installed in specific locations, which could foreseeably include installation in a location containing a scenic view or vista. |
| DEIR pg. 4.3-5 | Methodology. The DEIR utilizes various definitions of “sensitive receptors” in Section 4.3. The County states that “sensitive receptors are considered to be populations or uses that are more susceptible to the effects of air pollution than the general population”. Therefore, a residence would not be considered a “sensitive receptor”. The DEIR must explain why a typical residence would be excluded from any assessment of toxic air contaminants. |
| DEIR pg. 4.3-6 | Thresholds of Significance. The DEIR concludes that there are no known safe concentrations of toxic air contaminants (TAC). The DEIR should provide a reference to scientific studies that support this statement. Everyone in the County is exposed to TACs due to second-hand smoke, products of combustion, etc. Does this mean no one in the County is “safe”? Why would any additional development be allowed in the County under these conditions? |
| DEIR pg. 4.3-8 | Policy COS 7.8. The County is proposing a policy that requires gases from new discretionary oil and gas wells to be collected and used in order to minimize flaring. Landfills and wastewater treatment plants commonly employ flares to incinerate gas from those facilities. This policy should be expanded to include any flare associated with a discretionary project. If not, the DEIR should be revised to describe how the pollution from a flare at a landfill or wastewater treatment facility differs from a flare at an oil and gas well. |
| DEIR pg. 4.3-15 | Under Impact 4.3-2, the DEIR states that, “Further, as actual construction phasing is not known, it is possible that emissions may exceed or be below modeled emissions shown in Table 4.3-2. Nonetheless, based on conservative modeling, it is likely that emissions would exceed countywide and Ojai Valley thresholds at some point during buildout of the 2040 General Plan.” Yet, the DEIR provides no evidence to support the assumption that emissions would exceed countywide thresholds. Instead, the DEIR discloses that |

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| | population growth for the County will be negligible through 2040, which contradicts the assumption that construction associated with such growth would exceed applicable thresholds. |
| DEIR: pg. 4.3-15 | Mitigation Measures AQ-1a and AQ-1b are duplicative. Measure AQ-1b does not provide any mitigation benefits over and above those stated in Measure AQ-1a. |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. This mitigation measure requires “[p]re-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations.” Although this mitigation measure will decrease fugitive dust emissions, no analysis is provided in the DEIR regarding the amount of water that will be needed or where the water will be obtained. The DEIR must analyze all potential impacts. This mitigation measure could have substantial impacts on water use and have the unintended consequence of increasing emissions of GHGs, PM2.5, and NOx by having to utilize water trucks. The DEIR needs to be revised and recirculated to analyze these potential impacts. |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. This mitigation measure requires “treatment” of various portions of future construction sites within the County to minimize fugitive dust. A treatment option listed is “periodic watering”. Again, this mitigation measure could have substantial impacts on water use and have the unintended consequence of increasing emissions of GHGs, PM2.5, and NOx by having to utilize water trucks. The DEIR needs to be revised and recirculated to analyze these potential impacts. |
| DEIR pg. 4.3-16 | Mitigation Measure AQ-2a. The DEIR concludes that after mitigation, “criteria air pollutants and precursors would be minimized through the use of the highest rate [sic] diesel engines available”. The highest rated diesel engines as determined by the U.S. Environmental Protection Agency are Tier 4 engines, which offer substantially reduced NOx emissions. Contrary to the statement in the DEIR, none of the mitigation measures listed in Section 4.3 require the use of Tier 4 engines for nonroad diesel-fired construction equipment. The DEIR must clarify whether Tier 4 engines are in fact required to mitigate NOx emissions at all discretionary construction projects. |
| DEIR pg. 4.3-17 | The NOx emissions listed in Table 4.3-3 can only be achieved using Tier 4 engines on all nonroad diesel-fired construction equipment. For example, NOx emissions are limited to less than 3.0 g/bhp-hr for a Tier 3 nonroad engine rated between 100 hp and 750 hp. It is not uncommon for construction companies to use diesel equipment rated at 250 hp. operating at a 50% load factor over an 8-hour day, this Tier 3 unit would emit around 7 lb/day of NOx, which is substantially higher than the NOx emissions estimated in Table 4.3-3. The DEIR should specify whether Table 4.3-3 is based on using Tier 4 engines exclusively. |
| DEIR pg. 4.3-21 | The DEIR relies on the 2005 Land Use Handbook that recommends 500 ft setbacks on highly used roads greater than 50,000 vehicles per day. This 2005 document is now outdated as CARB released their advisory Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways in 2017. The more recent research concludes, “near-roadway pollution exposure had been previously underestimated and that people living as much as 1,000 feet from freeways were being adversely impacted by poor air quality”. The DEIR needs to be updated to reflect this more current research and recirculated to disclose that research to the public and decision makers. |
| DEIR pg. 4.3-21 | The DEIR proposes modifying policy COS-7.2 to require new discretionary oil wells be located a minimum of 1,500 ft from a residence and 2,500 ft from a school. As stated in |

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| | <p>previous comments, the DEIR allows schools and residences to be sited within 500 ft of a high-traffic freeway. CARB routinely states that diesel exhaust is responsible for 70% of the cancer risk from airborne toxics in California (for example https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts). If 500 ft is sufficient to protect a person from diesel exhaust that accounts for 70% of the cancer risk, how can anyone justify a larger buffer zone around a discretionary oil well due to presumed toxic air contaminants? The existing zoning standards are adequate to protect the public from new oil wells; the imposition of the proposed new policy is not supported by scientific evidence.</p> |
| DEIR pg. 4.3-22 | <p>Policy HAZ-10.X. When describing setback requirements for transportation corridors, residences are included within the discussion of sensitive receptors. As stated above in a preceding comment, the County should more clearly identify when residences are considered sensitive receptors.</p> |
| DEIR: pg. 4.4-2 | <p>Recommended textual change shown in bold and underline: “Based on an updated review of the CNDDDB, as well as a search of the California Native Plant Society (CNPS), Inventory of Rare and Endangered Plants of California database, the U.S. Fish and Wildlife Service (USFWS), and the Information for Planning and Consultation database, there are 75 additional special-status plant species known or with potential to occur in Ventura County (Table 4.4-1) (CNDDDB 2019; CNPS 2019; USFWS 2019).”</p> |
| DEIR: pg. 4.4-10 | <p>Recommended textual change shown in bold and underline: “the County’s aerial imagery and other relevant biological GIS data layers such as wetlands, waterbodies, vegetation, habitat connectivity and wildlife corridors; and updated CNDDDB, CNPS, Inventory of Rare and Endangered Plants of California database, and USFWS Information for Planning and Consultation database search results (CNDDDB 2019; CNPS 2019; USFWS 2019).”</p> |
| DEIR: pg. 4.4-14 | <p>Recommended textual change shown in bold and underline: “Based on the review and recommendation of a qualified biologist the County shall identify sensitive biological resources as part of any land use designation change to the General Plan Land Use Diagram or zone designation change to the Zoning Ordinance that would intensify the uses in a given area. The County shall prioritize conservation of areas with sensitive biological resources. (MPSP) [Source: New Policy]”</p> <p>It is critical that a qualified biologist ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc.</p> |
| DEIR: pg. 4.4-15 | <p>Recommended textual change shown in bold and underline: “Consideration of Impacts to Wildlife Movement. When considering proposed discretionary development, County decision-makers the County shall consider the development’s potential project-specific and cumulative impacts on the movement of wildlife on the recommendation of and based on evidence supplied by a qualified biologist at a range of spatial scales including local scales (e.g., hundreds of feet) and regional scales (e.g., tens of miles). (RDR) [Source: Wildlife Corridor Policy 3/19/19]”</p> <p>It is critical that a qualified biologist ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc.</p> |
| DEIR: pg. 4.4-16 | <p>Recommended textual change shown in bold and underline: “Policy COS-1.13: Partnerships for Protection of Natural and Biological Resources. The County shall</p> |

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| | continue to work in partnership with agencies, organizations, <u>property owners, business owners</u> and entities responsible for the protection, management, and enhancement of the county's biological resources.” |
| DEIR: pg. 4.4-17 | Recommended textual change shown in bold and underline: “ Program A: Standards for Compact Development. The County shall update the Non-Coastal Zoning Ordinance to include development standards for project design that features compact development adjacent to scenic or sensitive biological resources, <u>as determined by a qualified biologist.</u> [Source: New Program]” It is critical that a qualified biologist to ensure that sensitive biological resources are accurately identified and identification/designation is consistent with base mapping, etc. |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program D: Research Feasibility of Updating Vegetation Maps. In partnership with other natural resource agencies, <u>businesses owners, property owners</u> and organizations, the County shall explore the feasibility of updating vegetation maps for unincorporated areas to facilitate the accurate analysis of potential impacts of development on vegetation communities and other sensitive biological resources.” It is critical that all impacted entities are involved in the partnership of updating vegetation maps. |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program E: Update Non-Coastal Zoning Ordinance Standards for Vegetation Communities. Based on the results of Implementation Program COS-D, (updated vegetation mapping), the County shall develop or modify regulations and development standards to ensure adequate protections for vegetation <u>mapping</u> , if necessary.” |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program F: Evaluate Increase to Standard Setback from Wetland. <u>A County-approved, qualified biologist</u> shall evaluate whether a standard 200-foot setback from wetlands should apply to development in order to improve water quality, reduce the impacts of flooding and provide adequate protection for sensitive biological resources [Source: New Program]” |
| DEIR: pg. 4.4-18 | Recommended textual change shown in bold and underline: “ Program H: County Tree Planting Program. The County shall plant at least one thousand <u>native-species</u> trees annually on County property. [Source: New Program].” |
| DEIR: pg. 4.4-20 | Recommended textual change shown in bold and underline: “The Rural land use designation would allow for low-density and low-intensity land uses such as residential <u>uses es</u> and other rural uses which are maintained in conjunction with agricultural and horticultural uses.” |
| DEIR: pg. 4.4-21 | Recommended textual change shown in bold and underline: “. . . invasive, nonnative species), as a result of future development under the 2040 General Plan. Future development under the 2040 General Plan that could result in impacts on biological resources <u>and therefore may</u> require project-specific environmental review <u>under CEQA.</u> ” |
| DEIR: pg. 4.4-31 | Recommended textual change shown in bold and underline: “Policies COS-1.7, COS-1.8, COS-1.9, COS-1.10, and COS-1.11 include requirements <u>to requirements</u> for environmental review for projects within 300 feet of wetland habitat, implementation of |

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| | 100-foot setbacks from wetland habitat, incorporation of protective design features to avoid impacts to riparian habitat.” |
| DEIR: pg. 4.7-3 | Policy Haz 4.2. The DEIR should disclose the location of known, active faults (this information is readily available) and examine the physical consequences of linear infrastructure around same. Since the location of anticipated development and the type of development in such locations is known and disclosed in the DEIR, the rerouting consequences can be considered, quantified and mitigated now. |
| DEIR: pg. 4.7-3 | Policy Haz 4.6. This policy potentially interferes with state water board regulations regarding storm water run-off pollution prevention. |
| DEIR: pg. 4.7-4 | Policy Haz 4-15. The DEIR assumes, without any credible supporting evidence, that “extraction wells” cause or contribute to land subsidence. It can be shown, by readily available substantial evidence, that rock matrices within the County are not susceptible to land subsidence with proper material balance. |
| DEIR: pg. 4.8-1 | Incomplete Regulatory Setting. There is no mention of the California Global Warming Solutions Act of 2006 (AB32), the Regulation for Mandatory Reporting of Greenhouse Gas Emissions (MRR), or State Cap and Trade program in the DEIR. It is imperative that these regulations be identified and discussed in the DEIR (as opposed to being discussed in passing in the 1000+ page Background Report). |
| DEIR pg 4.8-5 | The California Air Resources Board (CARB) partnered with Scientific Aviation Inc. to measure methane emissions within California. Their report Statewide Airborne Methane Emissions, Measurement Survey dated May 13, 2019 concludes, “landfill sites were found to be the largest methane emitters on a per site basis”. The report describes how an aircraft flew 18 times around the Toland Road Landfill in Ventura County on October 16, 2017 and another 16 laps on May 14, 2018 measuring methane emissions. Using this data, the report concludes that the methane emissions from the Toland Road Landfill averages 2,364.9 kg/hr, which equates to approximately 20,700 MT/yr of methane. The DEIR assigns methane a global warming potential of 28, so the Toland Road Landfill would average 580,000 MT/yr CO ₂ e based on this CARB sponsored study. The DEIR estimated the GHG emissions from the same landfill to be 22,591 MT CO ₂ e from waste generated from unincorporated Ventura County during 2015 and 74,701 MT CO ₂ e from “waste-in-place”; for a total of 97,292 MT/yr CO ₂ e from the Toland Road Landfill. The DEIR should evaluate the various methods of determining GHG emissions from landfills to inform the readers that the GHG emissions from solid waste could be significantly higher than the estimates provided in the DEIR. |
| DEIR pg. 4.8-5 | The GHG emissions from solid waste in the County are further underestimated by ignoring the composting operations within the County. Although a properly operated composting operation can decrease methane emissions from waste, the process is designed to create CO ₂ . The DEIR needs to be updated to account for waste diverted from landfills, which would include composting operations. |
| DEIR pg. 4.8-5 | The 2015 baseline GHG inventory for stationary sources is listed as 275,096 MT CO ₂ e in Table 4.8-1. This estimate is described in Appendix D as representing GHG from oil and gas operations and the source is “CARB Mandatory Reporting Rule – 2016 (Latest available as of 11/6/2017)”. Various entities report their GHG emissions to CARB via their Mandatory Reporting Regulation (MRR). The regulation requires that the reported GHG emissions be verified by a third-party approved by CARB. After verification, CARB publishes a list of all entities reporting under the MRR and posts on their website |

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| | <p>(https://ww2.arb.ca.gov/mrr-data). This CARB published data shows that only three entities in the County reported in 2016 under the Oil and Gas Production industry sector. These three oil and gas production entities in Ventura County reported a total of 21,702 MT CO₂e. To put this in perspective, California State University, Channel Islands reported 84,042 MT CO₂e for the same timeframe. Nevertheless, the DEIR erroneously construes oil and gas operations as a major source of GHG emissions in the County. This misleads the public and the decision makers.</p> |
| DEIR 4.8-5 | <p>In lieu of focusing on GHG data specific to the County, the DEIR apparently applies data for the entire State to estimate GHG emissions from the County with no explanation as to why. Oil production and processing techniques vary throughout the State depending on the geologic formation being produced. CARB has recognized this variability and has developed carbon intensity values for the numerous crude oils needed to fuel California. As stated above, a total of three oil and gas production entities in Ventura County reported a total of 21,702 MT CO₂e. These three facilities produced approximately 6,570,000 bbls of crude oil in 2016 versus the total crude oil production of 7,729,845 bbls within the County. As such, these three facilities accounted for 85% of Ventura County's oil production. Applying the County's technique of estimating GHG emissions based on the amount of crude oil production, the oil and gas production and processing sector represented approximately 25,500 MT CO₂e emissions in 2016, which is significantly less than the GHG baseline estimate listed in the DEIR for stationary sources. The DEIR must explain why it is more accurate to ignore data specific to the County and rely on a generalized dataset.</p> |
| DEIR pg. 4.8-6 | <p>The projected GHG emissions from the "solid waste" sector as presented in Table 4.8-2 are more fully described in Appendix D. The methane emission projections for waste-in-place at in service landfills appear to be questionable. For example, the methane emissions from the Toland Road Landfill decreases from 74,701 MT CO₂e in 2015 to 66,248 MT CO₂e in 2020 for an 11% decrease in GHG emissions. Comparing the Simi Valley Landfill, which emitted 172,093 MT CO₂e in 2015 and dropping to 171,552 MT CO₂e in 2020 for only a 0.3% decrease. Considering that the Toland Road Landfill is scheduled to remain in service longer than any other landfill, please explain why the GHG emissions from the Toland Road Landfill decrease at much faster rate than the Simi Valley Landfill.</p> |
| DEIR pg. 4.8-6 | <p>The GHG projections from stationary sources provided in Table 4.8-2 appear to be based on the County's projections of increasing oil production. In Appendix D, the EIR utilizes a baseline oil production of 8,428,402 bbls/yr in 2015. By 2020, oil production in the County is forecasted to increase to 8,819,019 bbls/yr, accounting for a 4.6% increase in oil production over this five-year span. California provides annual summaries of oil production by county. The most recent report (www.conservation.ca.gov/calgem/pubs_stats/annual_reports/Pages/annual_reports.aspx) published by the Division of Oil, Gas and Geothermal Resources (DOGGR), now the California Geologic Energy Management Division, available is for 2018 and lists oil production in the County as 6,894,516 bbls/yr. Looking back to 2013, the same agency reported oil production from Ventura County as 8,973,076 bbls/yr. As reported by California, oil production in the County dropped 23% over a five-year span from 2013 to 2018, yet the DEIR projects oil production increasing 4.6% during a five-year span from 2015 to 2020. The DEIR needs to clearly describe why the County is projecting a drastic</p> |

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| | <p>turnaround in County oil production starting in 2019 and continuing into the foreseeable future. This assumption directly impacts the GHG projections listed in Table 4.8-2 and is not consistent with historical data or commonly available market projections.</p> |
| DEIR pg. 4.8-6 | <p>In the DEIR analysis of Impact 4.12-3, the County concludes that the 2040 General Plan could hamper or preclude access to oil and gas resources. The DEIR considers this impact to be “potentially significant” even after considering available mitigation measures. Section 4.8 of the DEIR needs to be modified to describe how oil production in the County is projected to steadily increase into the foreseeable future, while the DEIR concludes in Section 4.12 that the General Plan could “preclude expansion of existing oil and gas operations, ... thereby hampering or precluding access to the resource.”</p> |
| DEIR pg. 4.8-6 | <p>The numerous errors made to overstate the GHG emissions from stationary sources are compounded when making projections in Table 4.8-2 to the point that these estimates cannot be taken seriously. First, the 2015 baseline emissions from stationary sources should be closer to 25,500 MT CO₂e using data from the County (as calculated above); not 275,096 MT CO₂e based on data from outside the County. Secondly, oil production is contracting in the County and not expanding as assumed in the DEIR. From 2013 through 2018, crude oil production in the County dropped on average 415,700 bbls/yr. Using this trajectory, crude oil production in the County should be closer to 6,100,000 bbls in 2020, as opposed to 8,819,019 bbls projected in the DEIR. Using the same method as utilized in the DEIR to project GHG emissions, the 2020 GHG emissions from stationary sources should be around 20,000 MT CO₂e (calculated as 25,500 MT CO₂e * 6,100,000 bbls / 7,729,845 bbls)</p> |
| DEIR 4.8-9 | <p>In describing the County’s obligation under CEQA, the DEIR states, “a lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emission resulting from a project.” As the County has chosen to particularly focus on oil and gas production in this DEIR, the County has fallen short of its obligation to describe the impact on GHG emissions due to the 2040 General Plan. There is consensus that climate change is a global issue. GHG reductions are necessary and the County must play a part, but the County cannot by itself thwart the impacts of climate change. To measure global issues such as climate change, the DEIR should not be geographically confined to County. Crude oil is a worldwide commodity openly traded on exchanges. As the DEIR notes in Section 4.12, only 31% of the crude oil consumed in California is produced in State. Shutting down all oil production in the County will not decrease the market for crude oil. To the contrary, California will just import more crude oil from other countries, with the same portion of the refined products, including gasoline and diesel, being transported to the County’s consumers. Therefore, GHG impacts due to oil and gas production in the County is dependent on the amount of carbon associated with the crude oil produced within the County. CARB publishes Carbon Intensity values for the various crude oil sources under their Low Carbon Fuel Standard Regulation. The most recent published data is from 2018 (https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/2018_crude_average_ci_value_final.pdf). In this report, CARB determined, on an annual average, the Carbon Intensity of the crude oil used in California during 2018 was 12.35 gCO₂e/MJ. According to the same report, the crude oil produced from the Ventura Field, the largest oil production field in the County, had a Carbon Intensity of 4.54 gCO₂e/MJ. As such, the crude oil from the Ventura Field results in 63% less GHG</p> |

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| | emissions than the average crude oil used in California. The DEIR should be revised to describe the climate change benefits realized should the 2040 General Plan promote the continued use and expansion of crude oil produced within the County. |
| DEIR 4.8-23 | Policy COS 7.4. The County is proposing a policy to “require discretionary development for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible”. Is it the County’s position that only oil and gas exploration and production development projects contribute GHG emissions? If not, then such a policy should be expanded to include all discretionary development projects. By limiting this policy to oil and gas exploration and production development projects, the County is making an arbitrary determination not based on any facts presented in the record. |
| DEIR 4.8-23 | Policy COS 7.7. The County is proposing a policy to “require new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be trucked.” Numerous development projects can result in increased trucking including warehouses, agricultural processing facilities, military installations, and distribution centers. If the County is concerned with GHG emissions from trucking, why would this proposed policy be limited to new discretionary oil wells? There is no data in the DEIR suggesting that new discretionary oil wells are anticipated to cause a significant increase in GHG emissions due to trucking. The proposed policy should be revised to address discretionary development projects that would actually increase trucking or the County is making an arbitrary determination not based on any facts presented in the record. |
| DEIR 4.8-25 | The County is proposing to evaluate the feasibility of establishing a local tax on oil and gas operations. Later in Section 4.8 the DEIR states that increased taxes on oil and gas facilities may reduce GHG emissions. SB32 designates “the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases.” CARB has established a cap-and-trade program to regulate GHG sources, including oil and gas operations. In fact, the County attempts to rely on a GHG emission inventory from CARB in the DEIR to estimate the GHG emissions from stationary sources in the County. These stationary sources purchase GHG allowances during CARB authorized auctions to mitigate their GHG emissions. CARB then invests the auction proceeds to reduce GHG emissions in California. The County cannot usurp authority designated to a State agency. |
| DEIR 4.8-25 | GP 2040 and the accompanying DEIR does not establish a nexus between county GHG emissions and potentially establishing a local tax on oil and gas operations. As demonstrated in the County’s own documents, the DEIR concludes that stationary sources only contribute 14.5% of the calculated GHG emissions countywide in 2015 (even while overstating stationary source emissions as discussed in other comments). Transportation accounted for 36.5%, solid waste handling was 17.6% and buildings attributed 17%; all greater than the dramatically overstated GHG emissions from stationary sources, while understating GHG emissions from County operated solid waste operations. Why would the County not consider establishing/increasing local taxes on transportation fuels or establishing/increasing gate fees at the County landfills? Both sectors contribute significantly more GHG emissions in the County than oil and gas operations. If taxing an activity reduces GHG emissions from that sector (a highly speculative position), then why would increased taxes/fees from transportation and solid waste disposal not decrease GHG emissions? The County appears to be arbitrarily |

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| | burdening a single industry sector by increasing taxes with no regard to the data presented in the DEIR. |
| DEIR pgs. 4.8-11 through 4.8-37 | Multiple 2040 General Plan Policies and Implementation Programs are listed in this section (GHG). However, a significant number of these Policies and Programs have absolutely nothing to do with Greenhouse Gas Emissions or climate change (examples include Policies CTM-2.1, CTM-2.10, CTM-2.19, PFS-4.4, COS-2.10, WR-4.1, Implementation Program J, Implementation Program M, etc.) |
| DEIR pg. 4.8-23 | Policy COS 7.4. The DEIR does not consider the consequences of, defects of, or infeasibility of this policy. California and the County are net importers of energy—as an importer, the County cannot necessarily control whether imported energy is provided from 100 renewable sources. Thus, this policy is potentially infeasible to implement. |
| DEIR pg. Pg. 4.8-50 | Recommended textual change shown in bold and underline: “... the County cannot meaningfully quantify the effect of all its 2040 General Plan policies and programs on future GHG emissions, and <u>there therefore</u> , it cannot conclude, at this program level of analysis, that future GHG emissions in the county under the 2040 General Plan would be sufficiently reduced to meet the State’s 2030 or post-2030 targets.” |
| DEIR pg. Pg. 4.8-52 | Recommended textual change shown in bold and underline: “However, due to the County’s minimal growth, most of the forecast GHG emissions in 2030 and beyond are caused or influenced by <u>from</u> energy use in existing buildings, vehicle use and travel behavior on existing transportation systems, landfilled waste, and agricultural uses where the County has limited authority to enforce stringent actions resulting in GHG reductions beyond what have been already been included in the 2040 General Plan and the mitigation measures identified in Impact 4.8-2.” |
| DEIR pg. 4.9-7 | Policy HAZ – 5.5. The DEIR fails to define “alternative technology” for management of hazardous waste. It is unclear whether such technology even exists. Furthermore, the DEIR fails to disclose and evaluate the consequences of onsite treatment of hazardous waste. The location of future development is known, as is the location of future development expected to involve onsite use of hazardous materials (e.g. industrial uses). The foreseeable potential impacts of onsite waste treatment at these locations must be evaluated in the DEIR. |
| DEIR pg. 4.9-24 | The term “structure” is undefined for purposes of brush clearing. As a result, a reader of the DEIR cannot determine the scope of physical consequences associated with brush clearing (amount of soil disturbed, amount of vegetation disturbed, impacts to water quality from soil disturbance). Moreover, the DEIR fails to disclose and consider such physical consequences, which may be severe, depending on how the term “structure” is defined. |
| DEIR pg. 4.10-5 | <p>“Policy PFS-6.5. Stormwater Drainage Facilities. The County shall require that stormwater drainage facilities are properly designed, sited, constructed, and maintained to efficiently capture and convey runoff for flood protection and groundwater recharge. (RDR).”</p> <p>The DEIR does not define what constitutes “stormwater drainage facilities” (e.g. drain, basin, treatment plant). As such it is impossible to determine the scope of the policy and any associated physical consequences (such as construction disturbance).</p> |
| DEIR pg. 4.10-5 | “Policy PFS-6.7. Flood Control and Beach Sand Nourishment. The County shall include beach sand nourishment as an important factor in the design and maintenance of |

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| | <p>flood control facilities. (SO) <i>[New Policy]</i>”</p> <p>The DEIR does not define the term “flood control facilities.” Again , this makes it impossible to understand the applicability and scope of this policy.</p> |
| DEIR pg. 4.10-5 | <p>Recommended textual change shown in bold and underline: Policy HAZ-2.1: Principal Floodway Purpose. The County should limit <u>new</u> land use in the regulatory floodway, as identified in the Ventura County Flood Plain Management Ordinance, limited to open space, agriculture, <u>pre-existing structures</u> or passive to low intensity recreational uses, subject to the approval of the County Public Works Agency. The floodway’s principal use should be maintained for safely conveying floodwater away from people and property while protecting ecological functions of the <u>Ventura</u> river. (RDR) <i>[Source: Existing GPP Policy 2.10.2.1, modified].</i>”</p> |
| DEIR pgs. 4.11-7 through 4.11-88 | <p>The DEIR’s definition of and treatment of oil and gas resources as separate from/different from mineral resources is a significant error and is inconsistent with superior state/federal law as well as controlling court decisions. The DEIR’s mischaracterization of oil and gas as not amounting to a mineral resource renders all analyses and impact conclusions relating to same legally defective.</p> |
| DEIR pg. 4.11-8 | <p>Policy LU 6.1. Agricultural Buffers: The DEIR vaguely describes the imposition of buffers for agricultural uses without any measurable values/distances for these buffers. Thus it is impossible to evaluate the consequences such buffers will have on future adjacent land uses. Moreover, the DEIR is inconsistent with respect to the imposition of buffers at measureable distances for certain uses as opposed to others. Certain, measurable buffer distances (such as the proposed setback for oil and gas production) are imposed, while other uses are subject to no such measureable setbacks. This will result in a nonsensical patchwork of development. Reading the DEIR’s land use section as a whole, a future mineral extraction use in a location zoned for extraction would be held to a measurable setback in terms of future expansion, but a residential use with no measureable setback limitations could be installed immediately adjacent to a mineral extraction use.</p> |
| DEIR pg. 4.11-16 | <p>Policy HAZ-2.3. The DEIR fails to disclosure what constitutes an “incompatible land use.” This disclosure cannot be deferred, given that the scope and number of uses deemed “incompatible” will have dramatic physical consequences. If a large number of uses are “incompatible,” then the near-total inability to develop in the flood plain is a direct physical consequence that must be considered now.</p> |
| DEIR pgs. 4.11-1 through 4.11-24 | <p>The GP 2040 zoning map/land use map referenced throughout the DEIR’s land use section is not contained in the land use section. A reader has no way to review this section side-by-side with the maps being referenced.</p> |
| DEIR pg. 4.12-8 | <p>COS Revised Policy 7.2. As discussed above, the setback criteria proposed with adoption of GP 2040 affects selected, targeted industries. While oil and gas operations cannot expand to within 1500 feet of a “sensitive” use, such “sensitive” uses could certainly expand to within mere feet of existing oil and gas operations. This evidences the fact that this setback measure is not being adopted for a legally proper purpose.</p> |
| DEIR pg. 4.12-8 | <p>Policy COS 7.3. This Policy unlawfully impairs vested property rights and disregards well-settle controlling law concerning a mineral owner’s right to recover resources from his or her sub-surface property. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed.</p> |

| | |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DEIR pg. 4.12-8 | Policy COS 7.7. This policy is preempted by state and federal regulations. The DEIR disregards this. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed. |
| DEIR pg. 4.12-21 | The DEIR concedes that the majority of the COS policies to be adopted as part of the proposed GP 2040 are adopted for the express purpose of phasing out local oil and gas production within the County. The DEIR further concedes that the County will, as a direct result of this proposed phase-out, need to import foreign sources of oil and gas, and further acknowledges that the importation of such sources will have a more severe GHG production impact than reliance on local oil and gas resources. The DEIR then unlawfully punts on consideration of that more severe impact by stating that those impacts will occur "outside the GP 2040 plan area." This abdication of responsibility for GHG analysis is not only hypocritical given GP 2040's objective of combating climate change, but also unlawful. The more severe GHG impacts associated with the importation of foreign oil and gas are known and must be considered now. To omit this evaluation is to deprive the public and decision makers of the ability to fully and fairly understand and consider the impacts of adopting GP 2040. |
| DEIR pg. 4.12-21 | <p>The DEIR's unsupported conclusions regarding horizontal drilling access are demonstrably false. The DEIR states that: "[w]hile the amended policy would put limitations on the placement of new discretionary oil and gas wells, it would not necessarily prohibit access to the oil and natural gas resources being sought. In resource locations near sensitive land uses, directional drilling (including horizontal drilling) techniques could be utilized.</p> <p>Ample evidence, readily available to the DEIR preparers, disproves the foregoing. The aforementioned GP 2040 Policy (COS 7.2) impairs access to and recovery of approximately 80 million bbls of reserves/resources. The structural makeup of the reservoirs containing these reserves does not allow for horizontal drilling due to an average bed thickness of 2ft. A vertically stacked thinly bedding reservoir would require hundreds of wells to produce the 400-1500ft of interval and this is not economically viable in any historical economic condition. Directional drilling would not be possible to replace all of the reserves/resources due to terrain surrounding this area limiting surface locations as well the reservoir structural need to drill north-south directional paths from east or west locations.</p> |
| DEIR pg. 4.12-27 | COS Policy 7.8. This policy is not only preempted, but is also inconsistent with VCAPD rule 54 as it notes that all new well gas would be piped through the same gathering system in existing fields. Outside of running a new pipeline to a different gas processing system, there would be no way to break out the gas from the general field production that goes through the current gathering system through the gas plant, sales point, or flare. |
| DEIR pg. 4.13-14 | The elimination of back up alarms on equipment creates a direct, increased safety risk that is not considered in the DEIR. |
| DEIR pgs. 4.13-1 through 4.13-29 | The DEIR makes numerous, unsupported assumptions regarding the noise generated by oil and gas operations. Oil and gas operations generate noise equivalent to other industrial uses. The DEIR does not, and cannot, provide evidence demonstrating that oil and gas production generates noise above and beyond the noise levels generated by industrial activities, let alone that it produces objectionable noise. |

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 2:46 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: 805countrysquire@gmail.com <805countrysquire@gmail.com>
Sent: Tuesday, February 25, 2020 2:35 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

VC Planning,

You may have remembered a news story in the VC Star about my wife and I defending our Tierra Rejada home from the Easy Fire in 2019. My wife and I did this, alone, without assistance of the VC Fire Dept due to the fact that they were busy protecting the Reagan Library. We know firsthand the potential destruction of wildfires. But more importantly, we understand the role of vegetation buffers and wildfire fuel control. Part of the reason my wife and I were able to stand our ground and successfully defend our home from the flames was due to the fact that we had regularly cut and disposed of vegetation FARTHER than the 100-foot barrier required by the County or that will be permitted to be done with the aid of mechanized equipment. We have been told that we were "lucky". No, we were prepared, but our ability to continue that preparation will be severely hampered with these new regulations.

In Part 4.9 of the EIR, the County talks about how increased fuel loads will increase risk of wildfires. But then the County fails to talk about Policies COS-3.2, COS-1.15, Implementation Program COS-H, and Implementation Program COS-C which will increase fuel load and vegetation.

Please revise the DEIR so that it accurately identifies and mitigates wildfire risks. Help me save my home from the next wildfire.

Best Regards

Chuck

Chuck Carmichael
Country Squire
The End of the Road
15664 LaPeyre Road
Moorpark, CA 93021

Cell (818) 399-9067
Fax (818) 698-6435

Email: 805CountrySquire@gmail.com

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 2:57 PM
To: Simmons, Carrie
Subject: FW: County General Plan/EIR Comments

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Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Don and Beverly Denicola <de.nicola@cox.net>
Sent: Tuesday, February 25, 2020 2:52 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: County General Plan/EIR Comments

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

800 South Victoria Avenue, L#1740

Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the

draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

Laura McAvoy

I support this letter-
Beverly Chambers de Nicola

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 2:57 PM
To: Simmons, Carrie
Subject: FW: Comments on General Plan/EIR

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Don and Beverly Denicola <de.nicola@cox.net>
Sent: Tuesday, February 25, 2020 2:54 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on General Plan/EIR

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This

mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time, ” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

February 19, 2020

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Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County’s Zoning Ordinance and the County’s minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an “Agricultural Mitigation Measure” through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other

reasons, LAFCo could not adopt Supervisor Park’s proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, “the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter.”

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses “indirect impacts” that will occur as a result of implementing the 2040 General Plan as “less than significant.”

Page 4.2-13 of the EIR states “AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production.”

Page 4.2-17 of the EIR states: “Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...**Therefore, the potential for conflicts would be minimal. This impact would be less than significant**” (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

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Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim

urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB's opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that "...a reduction in available water resources for irrigation" is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

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Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

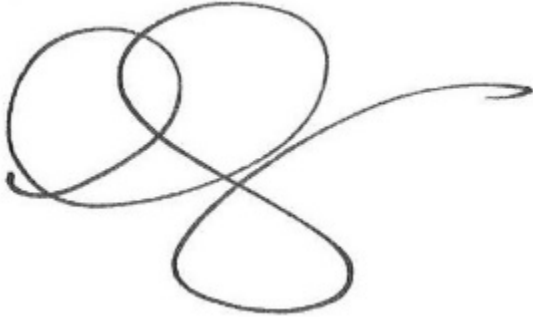
CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

- 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
- 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
- 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director

A handwritten signature in black ink, consisting of several overlapping loops and a long, sweeping tail that ends in a small hook.

In support of this letter-
Beverly Chambers de Nicola

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 2:57 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Mike Maulhardt <mike.maulhardt@gmail.com>
Sent: Tuesday, February 25, 2020 2:55 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Michael Joseph Maulhardt <mike.maulhardt@gmail.com>
Subject: 2040 General Plan Draft EIR Comment

Dear Ms. Curtis,

I understand the county did not conduct the CEQA required analysis for impacts that will hamper access to petroleum reserves.

CEQA is very clear that the intent of the impact analysis required here is to evaluate the potential impact of the General Plan on the future access to petroleum reserves.

Yet the County does not do this. Instead, the County provides a long discussion of the potential health and safety impacts that may occur near oil and gas production. While this "optional", not required "analysis is

admirable, the County has failed to comply with CEQA requirements for this analysis. The County must redo this analysis, this time following CEQA intent, and the EIR must be recirculated.

The County must conduct an analysis that meets the CEQA standard by evaluating the impact of future development under the General Plan on the ability to access reserves. The analysis outlined in the EIR has no bearing as the county failed to meet the CEQA standard.

Mike Maulhardt
Gus H. Maulhardt Associates
Since 1886

--

Mike Maulhardt
4213 Dogwood Place
Davis, CA 95618
530-758-3813 home
530-304-4459 cell
mike.maulhardt@gmail.com

Simmons, Carrie

From: Downing, Clay
Sent: Tuesday, February 25, 2020 3:02 PM
To: Simmons, Carrie
Subject: FW: General Plan / EIR Comments

Follow Up Flag: Follow up
Flag Status: Flagged

FYI

From: Curtis, Susan <Susan.Curtis@ventura.org>
Sent: Tuesday, February 25, 2020 2:56 PM
To: Downing, Clay <clay.downing@ventura.org>
Subject: FW: General Plan / EIR Comments

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Don and Beverly Denicola <de.nicola@cox.net>
Sent: Tuesday, February 25, 2020 2:50 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan / EIR Comments

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

Beverly Chambers de Nicola

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 3:19 PM
To: Simmons, Carrie
Subject: FW: Comments on County General Plan/EIR

Follow Up Flag: Follow up
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Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Don and Beverly Denicola <de.nicola@cox.net>
Sent: Tuesday, February 25, 2020 2:57 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Jimmy & Jane Chambers <costacasas@gmail.com>
Subject: Comments on County General Plan/EIR

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

800 S. Victoria Ave., L #1740

Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern

boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.
3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,

Beverly Chambers de Nicola

Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 3:20 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR comment

Follow Up Flag: Follow up
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Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Michelle Kenney <michelle@ladolcevita1901.com>
Sent: Tuesday, February 25, 2020 3:03 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR comment

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

To whom it may concern,

My name is Michelle Kenney. I am the head chef and owner of La Dolce Vita 1901. As a small business owner in Ventura I have concerns about some of the more flawed elements of the DEIR as it currently is written that lack proper analysis. In my business I must be thorough and have a solid understanding of the laws that govern my business. I ask that this document hold that same standard.

This DEIR is based on incomplete policy analysis, attempts to hide important information in violation of CEQA, and fails to recognize when policies are preempted by State and Federal law. The DEIR attempts to hide important information and fails to support its claims with credible evidence. The DEIR currently buries required information that forms the cornerstone of its analyses in a 1,000 plus page appendix. This is obviously in violation of CEQA.

I want this DEIR to be open and accessible and not hide information. Please make these corrections for recirculation.

Thank you,
Michelle Kenney
Owner, Executive Chef

The Place To Be Newsletter

La Dolce Vita 1901

RESTAURANT • CATERING • SPEAKEASY
Heritage Square
740 South B. Street | Oxnard, CA 93030
(805) 486-6878 | LaDolceVita1901.com



Simmons, Carrie

From: Curtis, Susan
Sent: Tuesday, February 25, 2020 3:26 PM
To: Simmons, Carrie
Subject: FW: Flawed Ventura County General Plan

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Stan Chambers <Stan@stanchambers.com>
Sent: Tuesday, February 25, 2020 3:23 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Flawed Ventura County General Plan

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great- great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my great grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.

2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.

3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."

4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.

5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

--
Sincerely,



Stan Chambers

Broker Associate | Lic# 01356002

(760) 505-8008

Stan@StanChambers.com

www.StanChambers.com



FIRSTTEAM[®]
REAL ESTATE



Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:10 AM
To: Simmons, Carrie
Subject: FW: 2040 General plan comment

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Bill Miller <wamsranch@aol.com>
Sent: Wednesday, February 26, 2020 12:29 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General plan comment

Ventura County fails to adequately analyze for impacts to farmland.

The EIR has policies that will create and expand the bike paths and pedestrian trails throughout the County. Some of these proposed areas are in or adjacent to existing ag land. But the County failed to analyze impacts on ag land from these projects.

These projects will result in the direct loss of ag land (through paving a bike land or path) and in the indirect loss of ag land through increasing public access to working ag lands and encouraging theft, vandalism, and trespassing.

In addition, as the public has more access to working farmlands, there will be an increase of complaints of odors, dust, noise, etc.

The County must protect ag land from encroachment caused by increasing public access across ag lands- propose a mitigation measure to establish a set-back (on non-ag land) that prevents the construction of any bike path network or public trail on or adjacent to ag lands.

Sincerely, William A. "Bill" Miller

*When we have socialism...what is
your fair share of what someone
else has worked for?*

Simmons, Carrie

From: Barrera, Baron@Wildlife <Baron.Barrera@Wildlife.ca.gov>
Sent: Wednesday, February 26, 2020 4:36 PM
To: General Plan Update
Cc: Curtis, Susan; Gibson, Steve@Wildlife; Wilson-Olgin, Erinn@Wildlife; Rodriguez, Randy@Wildlife; Warmuth, Brock@Wildlife; Santonil, Malinda@Wildlife; Scott.Morgan@opr.ca.gov
Subject: FW: California Department of Fish and Wildlife -- Avalon Homes Subdivision (DEIR) Comment Letter
Attachments: Ventura County GPU_CDFW Comment Letter.pdf

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Hello,

Attached are California Department of Fish and Wildlife (CDFW) comments on the Ventura County General Plan Update Project (DEIR). Feel free to contact me at (562-431-8053) or Baron.Barrera@wildlife.ca.gov if you have any questions. A hard copy will also be send to you in the mail.

Regards,

Baron Barrera, M.S.

Environmental Scientist

California Department of Fish and Wildlife
South Coast Region
4665 Lampson Ave., Suite C
Los Alamitos, CA 90720
(858) 354-4114



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



February 26, 2020

Mrs. Susan Curtis
Ventura County
800 South Victoria Lane
Ventura, CA 93009

Subject: Draft Environmental Impact Report for the Ventura County 2040 General Plan Update, Ventura County

Dear Mrs. Susan Curtis:

The California Department of Fish and Wildlife (CDFW) has reviewed the above-referenced Draft Environmental Impact Report (DEIR) for the Ventura County 2040 General Plan Update (GPU). Thank you for the opportunity to provide comments and recommendations regarding those activities detailed in the GPU that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the GPU that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code. Further, CDFW understands that future development projects may be tiered off this environmental document. As such, future development projects, as detailed in the GPU, will be collectively referred to as "Projects." This is not to say that each comment below is relevant to each of the Projects discussed in the GPU, but that the comments listed below should be considered when a specified project may impact any of the biological resources discussed below.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & Game Code, §§ 711.7, subdivision (a) & 1802; Public Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & Game Code, § 1600 *et seq.*). Likewise, to the extent implementation of the GPU as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA) (Fish & Game Code, § 2050 *et seq.*), or state-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & Game Code, §1900 *et seq.*), CDFW recommends the GPU proponent obtain appropriate authorization under the Fish and Game Code, as necessary.

Project Description and Summary

Objective: The County of Ventura is undertaking a comprehensive update of its General Plan. The County's current General Plan was most recently updated in 2005 and has not been comprehensively updated since 1988. The GPU is anticipated to be adopted in 2020 and will set forth the County's vision of its future and express the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including land use, health and safety, and resource conservation out to the year 2040. In addition, all area plans, specific plans, subdivisions, public works projects, and zoning decisions must be found to be consistent with the direction provided in the County's General Plan.

Location: Ventura County (county-wide).

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the County in adequately identifying, avoiding, and/or mitigating Projects' (as detailed in the GPU) significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Additional comments or other suggestions may also be included to improve the document.

Project Description and Related Impact Shortcoming

Comment #1: Impacts to Special-Status Plant Species

Issue: The summation of incremental impacts from the Projects and land use strategies, disclosed in the GPU, may result in a significant cumulative impact with regards to biological resources. Further, the Projects may contribute to an increase in habitat fragmentation and development upon native habitats.

Specific impact: CDFW considers plant communities, alliances, and associations with a statewide ranking of S1, S2, S3 and S4 as sensitive and declining at the local and regional level (Sawyer et al. 2008). An S3 ranking indicates there are 21-80 occurrences of this community in existence in California, S2 has 6-20 occurrences, and S1 has less than 6 occurrences. The Projects may have direct or indirect effects to these sensitive species.

Why impact would occur: The implementation of Projects may include grading, vegetation clearing for construction, road maintenance, and other activities that may result in direct mortality, population declines, or local extirpation of sensitive plant species.

Evidence impact would be significant: Impacts to special status plant species should be considered significant under CEQA unless they are clearly mitigated below a level of significance. Inadequate avoidance, minimization, and mitigation measures for impacts to these sensitive plant species will result in a project(s) continuing to have a substantial adverse direct, indirect, and cumulative effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or U.S. Fish and Wildlife Service (USFWS).

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends including avoidance, minimization, and/or mitigation measure language articulating the need to perform focused surveys for sensitive/rare plants on-site and disclosing the results prior to the implementation of Projects. Based on the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2018)

(<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959>), a qualified biologist should “conduct surveys in the field at the time of year when species are both evident and identifiable. Usually this is during flowering or fruiting.” Final CEQA documentation, for a specified project, should provide a thorough discussion on the presence/absence of sensitive plants on-site and identify measures to protect sensitive plant communities from project-related direct and indirect impacts.

Mitigation Measure #2: In 2007, the State Legislature required CDFW to develop and maintain a vegetation mapping standard for the State (Fish & Game Code, § 1940). This standard complies with the National Vegetation Classification System, which utilizes alliance and association-based classification of unique vegetation stands. CDFW utilizes vegetation descriptions found in the Manual of California Vegetation (MCV), found online at <http://vegetation.cnps.org/>. To determine the rarity ranking of vegetation communities on a specific project site(s), the MCV alliance/association community names should be provided as CDFW only tracks rare natural communities using this classification system.

Mitigation Measure #3: CDFW recommends avoiding any sensitive natural communities found within or near Projects. If avoidance is not feasible, mitigating at a ratio of no less than 5:1 for impacts to S3 ranked communities and 7:1 for S2 communities should be implemented. This ratio is for the acreage and the individual plants that comprise each unique community. All revegetation/restoration areas that will serve as mitigation should include preparation of a restoration plan, to be approved by USFWS and CDFW prior to any ground disturbance. The restoration plan should include restoration and monitoring methods; annual success criteria; contingency actions should success criteria not be met; long-term management and maintenance goals; and, a funding mechanism to assure for in perpetuity management and reporting. Areas proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (Assembly Bill 1094; Government Code, §§ 65965-65968).

Comment #2: Survey Protocols for Special-Status Wildlife

Issue: There is no mention of protocol surveys for special-status wildlife. Projects proposed to occur within the geographical limits of the GPU may impact special status species. As such, we recommend including special-status protocol survey language as an avoidance, minimization and/or mitigation measure(s).

Why impacts would occur: A lack of protocol surveys will likely lead to impacts to a variety of sensitive species. Protocol surveys are necessary to identify listed species and supporting habitat necessary for their survival.

Evidence impact would be significant: Ground clearing and construction activities could lead to the direct mortality of a listed species or species of special concern (SSC). The loss of occupied habitat could yield a loss of foraging potential, nesting sites, basking sites, or refugia

and would constitute a significant impact absent appropriate mitigation. CDFW considers impacts to CESA-listed and Species of Special Concern (SSC) a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends that Projects follow appropriate survey protocol for a given species. The survey(s) should be performed based on the species found, or likely to occur, on a respective project site(s), the mitigative response to which will vary.

The following mitigation measures are suggested by CDFW for impacts to reptiles:

Mitigation Measure #1: To mitigate impacts to SSC, CDFW recommends focused surveys for the species. Surveys should typically be scheduled when these animals are most likely to be encountered, usually conducted between June and July. To achieve 100 percent visual coverage, CDFW recommends surveys be conducted with parallel transects at approximately 20 feet apart and walked on-site in appropriate habitat suitable for each of these species. Suitable habitat consists of areas of sandy, loose and moist soils, typically under the sparse vegetation of scrub, chaparral, and within the duff of oak woodlands.

Mitigation Measure #2: In consultation with qualified biologist familiar with the life history of each of the SSC, a relocation plan (Plan) should be developed. The Plan should include, but not be limited to, the timing and location of the surveys that will be conducted for this species, identify the locations where more intensive survey efforts will be conducted (based on high habitat suitability); identify the habitat and conditions in any proposed relocation site(s); the methods that will be utilized for trapping and relocating the individuals of this species; and the documentation/recordation of the number of animals relocated. CDFW recommends the Plan be submitted to the Lead Agency for approval 60 days prior to any ground disturbing activities within potentially occupied habitat.

Mitigation Measure #3: If construction is to occur during the low activity period (generally December through February), surveys should be conducted prior to this period, if possible. Exclusion fencing should be placed to limit the potential for re-colonization of the site prior to construction. CDFW further recommends a qualified biologist be present during ground-disturbing activities immediately adjacent to or within habitat, which supports populations of this species.

The following mitigation measures are suggested by CDFW for impacts to nesting birds:

Mitigation Measure #1: To protect nesting birds that may occur on-site, CDFW recommends that the final environmental document for Projects (as necessary) include a measure that no construction shall occur from January 1 through September 15. If construction is unavoidable during January 1 through September 15, a qualified biologist shall complete a survey for nesting bird activity within a 500-foot radius of the construction site. The nesting bird surveys shall be conducted at appropriate nesting times and concentrate on potential roosting or perch sites. If any nests of birds of prey are observed, these nests shall be designated an ecologically sensitive area and protected (while occupied) by a minimum 500-foot radius during project construction.

The following mitigation measures are suggested by CDFW for impacts to raptors:

Mitigation Measure #1: To protect nesting birds that may occur on-site, CDFW recommends that the final environmental document, for each project (as necessary), include a measure that no construction shall occur from January 1 through September 15. If construction is unavoidable during January 1 through September 15, a qualified biologist shall complete surveys for nesting bird activity the orders *Falconiformes* and *Strigiformes* (raptors and owls) within a 500-foot radius of the construction site. The nesting bird surveys shall be conducted at appropriate nesting times and concentrate on potential roosting or perch sites. If any nests of birds of prey are observed, these nests shall be designated an ecologically sensitive area and protected (while occupied) by a minimum 500-foot radius during project construction. Pursuant to FGC Sections 3503 and 3503.5, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird or bird-of-prey.

Mitigation Measure #2: CDFW cannot authorize the take of any fully protected species as defined by state law. State fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for its take except for collecting those species for necessary scientific research and relocation of the bird species for protection of livestock (Fish & G. Code, §§ 3511, 4700, 5050, 5515). CDFW has advised the Permittee that take of any species designated as fully protected under the Fish and Game Code is prohibited. CDFW recognizes that certain fully-protected species are documented to occur on, or in, the vicinity of project areas, or that such species have some potential to occur on, or in, the vicinity of project areas, due to the presence of suitable habitat.

The following mitigation measures are suggested by CDFW for impacts to bats:

Mitigation Measure #1: The CEQA document should provide a discussion of potential impacts to bats, which may occur as a result from the construction and/or operation of Projects. The language should adequately disclose potential impacts and identify appropriate avoidance and mitigation measures.

Mitigation Measure #2: Measures to mitigate impacts to bats should include pre-construction surveys to detect species, use of bat roost installations, and preparation of a bat protection and relocation plan to be submitted to CDFW for approval prior to commencement of project activities, as necessary.

Comment #3: Impacts to CESA-Listed Species

Issue: There are multiple listed species with the potential to occur within the GPU footprint.

Specific Impacts: Projects related activities, such as grading, road construction, or housing construction could lead to the direct or indirect mortality of listed animal and/or plant species.

Why impact would occur: Take of special status plant species, including ESA and CESA-listed species, may occur without adequate detection, avoidance and mitigation measures.

Evidence impacts would be significant: CDFW considers adverse impacts to special status species protected by CESA and the federal Endangered Species Act (ESA, 16 U.S.C. §1531 *et*

seq.), for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any state endangered, threatened, candidate species, or listed rare plant species pursuant to the NPPA that results from the Project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”. Projects may result in substantial adverse effects, either directly or through habitat modifications, on a species protected under CESA.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: If Projects will result in take of a plant or animal species designated as rare, endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the proponent seek appropriate take authorization under CESA prior to project implementation. Appropriate authorization from CDFW may include an ITP or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. [b], [c]). Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain CESA authorization. Revisions to the Fish and Game Code, effective January 1998, may require CDFW issue a separate CEQA document for the issuance of an ITP unless the project(s) CEQA document addresses all impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the fully mitigated requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for an ITP.

Comment #4: Impacts to Streams

Issue: As indicated in the Hydrology/Water Quality section of the DEIR, Projects may result in impacts to State Waters. As such, the Department offers the following measures for activities that may result in significant impacts to State Waters. The following language supports streams subject to notification under Fish and Game code section 1600 *et seq.*

Specific impacts: Projects may result in the loss of streams and associated watershed function and biological diversity. Grading and construction activities will likely alter the topography, and thus the hydrology, of a Projects site.

Why impacts would occur: Ground disturbing activities from grading and filling, water diversions and dewatering would physically remove or otherwise alter existing streams or their function and associated riparian habitat. Downstream waters and associated biological resources beyond a project(s) development footprint may also be impacted by Projects related releases of sediment and altered watershed effects.

Evidence impacts would be significant: Projects may substantially adversely affect the existing stream pattern of the site through the alteration or diversion of a stream, which absent specific mitigation, could result in substantial erosion or siltation on-site or off-site.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: Projects may result in the alteration of streams. For any such activities, the project applicant (or “entity”) must provide written notification to CDFW pursuant to section

1600 *et seq.* of the Fish and Game Code. Based on this notification and other information, CDFW determines whether a Lake and Streambed Alteration Agreement (LSA) with the applicant is required prior to conducting the proposed activities. A notification package for a LSA may be obtained by accessing CDFW's web site at www.wildlife.ca.gov/habcon/1600.

CDFW's issuance of an LSA for Project that are subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the CEQA document of the Lead Agency for a project. To minimize additional requirements by CDFW pursuant to section 1600 *et seq.* and/or under CEQA, project specific CEQA documents should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSA.

Mitigation Measure #2: Any LSA permit issued for Projects by CDFW may include additional measures protective of streambeds on and downstream of the project. The LSA may include further erosion and pollution control measures. To compensate for any on-site and off-site impacts to riparian resources, additional mitigation conditioned in any LSA may include the following: avoidance of resources, on-site or off-site creation, enhancement or restoration, and/or protection and management of mitigation lands in perpetuity.

Comment #5: Potential Land Use Changes Specific to Cannabis

Issue: If the County allows the cultivation of cannabis in the future through the General Plan Update or otherwise CDFW recommends the following procedures and measures to minimize impacts from cannabis cultivation.

To obtain a state license to cultivate cannabis, written verification that a 1600 streambed agreement is not needed or that one has been obtained is required. Some of the issues CDFW has been challenged with during the review of cannabis cultivation applications included:

- Shallows wells, diversions and other conveyance facilities and potential effects to surface flows, riparian habitat resources that are needed for wildlife species such as steelhead, least Bell's vireo, southwestern willow flycatcher and yellow-billed cuckoo.
- Conversion of native habitat to cultivation with no replacement habitat conserved and managed in perpetuity.
- Inadequate identification and mapping of the full extent of stream resources on-site.
- Buffers and setbacks from streams that may not be sufficient over time to protect existing wildlife habitat.
- Need to integrate surveys for and impacts to plants from conversion of natural land to cultivation.

Filing Fees

Projects, as proposed in the GPU, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & Game Code, § 711.4; Pub. Resources Code, § 21089).

Conclusion

Mrs. Susan Curtis
Ventura County
February 26, 2020
Page 8 of 13

We appreciate the opportunity to comment on the GPU to assist Ventura County in adequately analyzing and minimizing/mitigating impacts to biological resources. CDFW requests an opportunity to review and comment on any response that the County has to our comments and to receive notification of any forthcoming hearing date(s) for the Project [CEQA Guidelines; § 15073(e)]. If you have any questions or comments regarding this letter, please contact Baron Barrera, Environmental Scientist, at Baron.Barrera@wildlife.ca.gov or (858) 354-4114.

Sincerely,



Erinn Wilson
Environmental Program Manager I

cc: CDFW

Steve Gibson – Los Alamitos
Baron Barrera – Los Alamitos
Brock Warmuth – Los Alamitos
Randy Rodriguez – Los Alamitos
Malinda Santonil – Los Alamitos

Susan Curtis – (Ventura County)

Scott Morgan (State Clearinghouse)

References:

California Department of Fish and Wildlife [CDFW]. March 20,2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see <https://www.wildlife.ca.gov/Conservation/Plants>).

National Research Council. 1995. *Science and the Endangered Species Act*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/4978>.

Sawyer, J.O., Keeler Wolf, T., and Evens J.M. 2008. A manual of California Vegetation, 2nd ed. ISBN 978 0 943460 49 9.

The following table includes suggested language for the Project’s Mitigation and Monitoring Reporting Program.

| | Mitigation Measure | Timing and Methods | Responsible Parties |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <p>Comment #1, MM #1.</p> <p>CDFW recommends including avoidance, minimization, and/or mitigation measure language articulating the need to perform focused surveys for sensitive/rare plants on-site and disclosing the results prior to the implementation of Projects. Final CEQA documentation, for a specified project, should provide a thorough discussion on the presence/absence of sensitive plants on-site and identify measures to protect sensitive plant communities from project-related direct and indirect impacts.</p> | <p>Timing: Prior to Construction</p> <p>Methods: A qualified biologist should “conduct surveys in the field at the time of year when species are both evident and identifiable. Usually this is during flowering or fruiting.” Final CEQA documentation, for a specified project, should provide a thorough discussion on the presence/absence of sensitive plants on-site and identify measures to protect sensitive plant communities from project-related direct and indirect impacts. For more specific information, reference the following:</p> <p><i>Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities</i> (CDFW, 2018) https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959).</p> | <p>Implementation: County of Ventura</p> <p>Monitoring and Reporting: County of Ventura</p> |

| | Mitigation Measure | Timing and Methods | Responsible Parties |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 2 | <p>Comment #1, MM #2. In 2007, the State Legislature required CDFW to develop and maintain a vegetation mapping standard for the state (Fish & Game Code, § 1940). This standard complies with the National Vegetation Classification System, which utilizes alliance and association-based classification of unique vegetation stands.</p> | <p>Timing: Prior to Construction</p> <p>Methods: To determine the rarity ranking of vegetation communities on a specific project site(s), the MCV alliance/association community names should be provided as CDFW only tracks rare natural communities using this classification system.</p> | <p>Implementation: County of Ventura</p> <p>Monitoring and Reporting: County of Ventura</p> |
| | <p>Comment #1, MM #3. Avoid any sensitive natural communities found within or near Projects. If avoidance is not feasible, mitigating at a ratio of no less than 5:1 for impacts to S3 ranked communities and 7:1 for S2 communities should be implemented. This ratio is for the acreage and the individual plants that comprise each unique community.</p> | <p>Timing: Relevant for all Phases</p> <p>Methods: All revegetation/restoration areas that will serve as mitigation should include preparation of a restoration plan, to be approved by USFWS and CDFW prior to any ground disturbance. The restoration plan should include restoration and monitoring methods; annual success criteria; contingency actions should success criteria not be met; long-term management and maintenance goals; and, a funding mechanism to assure for in perpetuity management and reporting. Areas proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (Assembly Bill 1094; Government Code, §§ 65965-65968).</p> | <p>Implementation: County of Ventura</p> <p>Monitoring and Reporting: County of Ventura</p> |

| | Mitigation Measure | Timing and Methods | Responsible Parties |
|---|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 3 | <p>Comment #2, MM #1. Projects shall adhere to appropriate survey protocol for a given species.</p> | <p>Timing: Prior to Construction</p> <p>Methods: To mitigate impacts to SSC, CDFW recommends focused surveys for the species. Surveys should typically be scheduled when these animals are most likely to be encountered, usually conducted between June and July. To achieve 100 percent visual coverage, CDFW recommends surveys be conducted with parallel transects at approximately 20 feet apart and walked on-site in appropriate habitat suitable for each of these species. Suitable habitat consists of areas of sandy, loose and moist soils, typically under the sparse vegetation of scrub, chaparral, and within the duff of oak woodlands. For more specific information (e.g. special-status wildlife, reptiles, nesting birds, and bats), please see language detailed in the comments above.</p> | <p>Implementation: County of Ventura</p> <p>Monitoring and Reporting: County of Ventura</p> |

| | Mitigation Measure | Timing and Methods | Responsible Parties |
|---|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 4 | <p>Comment #3, MM #1. Avoid adverse impacts to special status species protected by CESA and the ESA.</p> | <p>Timing: Prior to Construction</p> <p>Methods: The Project(s) proponent shall seek appropriate take authorization under CESA prior to project implementation. Appropriate authorization from CDFW may include an ITP or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. [b], [c]). Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain CESA authorization. Revisions to the Fish and Game Code, effective January 1998, may require CDFW issue a separate CEQA document for the issuance of an ITP unless the project(s) CEQA document addresses all impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the fully mitigated requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for an ITP.</p> | <p>Implementation: County of Ventura</p> <p>Monitoring and Reporting: County of Ventura</p> |

| | Mitigation Measure | Timing and Methods | Responsible Parties |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 5 | <p>Comment #4, MM #1. Avoid adverse impacts to streams, associated watershed function, and subsequent biological diversity.</p> | <p>Timing: Prior to Construction</p> <p>Methods: Projects may result in the alteration of streams. For any such activities, the project entity must provide written notification to CDFW pursuant to section 1600 <i>et seq.</i> of the Fish and Game Code. Based on this notification and other information, CDFW determines whether a LSA with the applicant is required prior to conducting the proposed activities. A notification package for a LSA may be obtained by accessing CDFW's web site at www.wildlife.ca.gov/habcon/1600.</p> | <p>Implementation: County of Ventura</p> <p>Monitoring and Reporting: County of Ventura</p> |

Simmons, Carrie

From: Stephanie Caldwell <stephanie@ventura-chamber.org>
Sent: Wednesday, February 26, 2020 4:56 PM
To: General Plan Update
Subject: DEIR Comments - Receipt Requested
Attachments: DEIR Comments Ventura Chamber.pdf

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Ms. Curtis,

The Ventura Chamber of Commerce (Chamber) is the leading business organization in the City of Ventura and serves to support a strong local economy through its stewardship of city policy and business development. The Chamber represents more than 700 businesses of varying sizes and industries who work together with local leaders to foster business development and job creation. We believe in stimulating and sustaining growth for Ventura businesses and the regional economy so that we have strong schools and a high quality of life for Ventura residents.

As the County moves through its General Plan Update Process, we appreciate the opportunity to provide comments on the Draft Environmental Impact Report (DEIR). We believe strongly that working together to shape our county's future is of the utmost importance.

After review of the DEIR, the Chamber urges the County to address the following components:

- Economic Vitality
- Affordable Housing

Economic Vitality - Economic vitality is a critical component and core principle of Ventura County's future. In fact, economic vitality is the second principle in the County's Vision Statement. Unfortunately, the DEIR falls short of providing a thorough analysis of how each policy impacts the economic vitality of the County. The scope of the report is limited to County costs and does not reflect the impacts that will be felt by residents. This is critical to ensure the regional economy is not put at risk.

Housing Affordability – The Ventura County Star recently published an article that cites low housing supply and lacking wage growth as the defining factors for the county's housing market over the last decade. Rent had increased 45% in the last ten years, and the median home price is now near \$600,000 according to Zillow. The DEIR does not address the serious affordability crisis Ventura County residents face, specifically related to housing. Rushing the document creates a situation that excludes coordination from Southern California Association of Governments (SCAG) and the Regional Housing Need Allocation numbers that are not expected to be finalized until October 2020. The DEIR asserts that an estimate will be released in February 2020. At a minimum, the DEIR should be revised to include the estimated numbers. The Housing Element is incomplete without this data. Considering housing is the top issue facing the state of California and Ventura, the DEIR must include an accurate impact analysis.

The DEIR process does not need to be rushed. We urge you to take the time to revise the DEIR and recirculate it to the public again and focus on economic vitality and housing.

Thank you,

Stephanie Caldwell

President & CEO



Ventura Chamber of Commerce

505 Poli Street, 2nd Floor | Ventura, CA 93001

Tel (805) 643-7222 x14 | Fax (805) 653-8015

stephanie@ventura-chamber.org

www.VenturaChamber.com





February 26, 2020

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, California 93009

via email: GeneralPlanUpdate@ventura.org

Re: General Plan Update Draft Environmental Impact Report Comments

Dear Ms. Curtis,

The Ventura Chamber of Commerce (Chamber) is the leading business organization in the City of Ventura and serves to support a strong local economy through its stewardship of city policy and business development. The Chamber represents more than 700 businesses of varying sizes and industries who work together with local leaders to foster business development and job creation. We believe in stimulating and sustaining growth for Ventura businesses and the regional economy so that we have strong schools and a high quality of life for Ventura residents.

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The DEIR process does not need to be rushed. We urge you to take the time to revise the DEIR and recirculate it to the public again and focus on economic vitality and housing.

Thank you,

A handwritten signature in black ink, appearing to read "Stephanie Caldwell".

Stephanie Caldwell
President & CEO
Ventura Chamber of Commerce

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:09 AM
To: Simmons, Carrie
Subject: FW: General Plan/EIR Comments

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Dave Chambers <davechambers911@gmail.com>
Sent: Tuesday, February 25, 2020 5:20 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan/EIR Comments

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

-

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

Dave Holroyd Chambers

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 3:44 PM
To: Simmons, Carrie
Subject: FW: County General Plan/EIR Comments

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Bob & Anna Chambers <lacostachambers@gmail.com>
Sent: Wednesday, February 26, 2020 1:46 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: County General Plan/EIR Comments

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

800 South Victoria Avenue, L#1740

Ventura, CA 93009-1740

-

Re: Comments on Ventura County General Plan DEIR

-

Dear Ms. Curtis:

-

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

-

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

-

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

-

With that said, we would like to specifically present the following:

-

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

-

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

-

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

-

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and

farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

-

I appreciate your consideration.

Laura McAvoy

I support this letter-
Robert M. Chambers

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 5:14 PM
To: Simmons, Carrie
Subject: FW: VC 2040 Draft General Plan & EIR

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>
Sent: Wednesday, February 26, 2020 4:20 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: FW: VC 2040 Draft General Plan & EIR

No sure you received this one.

Lori

From: Mary Freed [<mailto:msmfreed@gmail.com>]
Sent: Wednesday, February 26, 2020 1:04 PM
To: ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>
Subject: VC 2040 Draft General Plan & EIR

We need much stronger measures to protect Ventura County from increasingly rapid and negative climate changes than the current proposals in this draft general plan. Suggestions are worthless. If we want positive climate changes the County must require them. Start with changing the County vehicle fleet to all electric. Stop all oil extraction in the county. Develop a workable public transit system county wide. Provide incentives for farmers to change to organic and regenerative methods. Make this plan tough enough to actually make a dent in climate changes.
Mary Freed, Thousand Oaks

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 5:14 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment McLoughlin Property - aka Olivas Lands

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Lizzy Martinez <emchambers@aol.com>
Sent: Wednesday, February 26, 2020 4:24 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment McLoughlin Property - aka Olivas Lands

Sent from my iPhone

Begin forwarded message:

From: Lizzy Martinez <emchambers@aol.com>
Date: February 25, 2020 at 2:56:54 PM PST
To: GeneralPlanUpdate@ventura.org
Subject: 2040 General Plan Draft EIR Comment McLoughlin Property - aka Olivas Lands

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving jobmarket, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.
3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,
Elizabeth Chambers Martinez and Family
Great Granddaughter of Mark McLoughlin

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 6:57 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:

Teal Rowe

Contact Information:

teal@tealrowe.com

Comment On:

Climate Action Plan

Your Comment:

I believe that adopting CFROG's recommendations for the climate action plan (CAP) is a must~ Please add this to the 2040 General Plan Update. Thank you

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 7:43 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:

Monica Gray

Contact Information:

momama08@gmail.com

Comment On:

Climate Action Plan

Your Comment:

Please do more to help reduce greenhouse gas emissions and food waste. Focus on regenerative agriculture and creating more incentives for people to take advantage of veteran farmer programs. Feed hungry people, reduce food waste, and incentivize volunteering to glean fruit with Food Forward and Food Share by County employees. Please support " Get Fresh VC," my effort to feed hungry college students, reduce food waste, and teach valuable skills in food recovery. Rotting food does us no good, and we can recapture this produce and restore value and create community goodwill at the same time.

Simmons, Carrie

From: S. Colome <sdcolome@gmail.com>
Sent: Wednesday, February 26, 2020 7:48 PM
To: Curtis, Susan; General Plan Update
Subject: Comment Letter on DEIR and 2040 GenPlan Draft
Attachments: Comment Letter on the Draft Environmental Impact Report.docx

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Hello Susan,

Please find attached comments I was able to produce in the time allotted. More can be said as the document is lengthy and complex. To facilitate public review the County should have provided revisions to the draft GenPlan in legislative format in the interest of greater transparency. It was a challenge and time-consuming to search out changes from the prior draft and identify responses by County to public comments made in the revised draft. The GHG calculations and tables in Appendix D were also left uncollated and are impossible to validate without access to the "proprietary" model.

My comments focus on the attempt by County to embed a CAP in the GenPlan, and on the DEIR sections that address the CAP. I am sorry to be so critical, but I am afraid the County has completely failed to produce a viable CAP.

Regards,

Steven Colome, ScD

Comment Letter on the Draft Environmental Impact Report (DEIR) for the Ventura County Draft 2040 General Plan

**Statement of Dr. Steven Colomé,
February 26, 2020**

Climate is the defining challenge of the 21st Century-UC Berkeley¹

I conducted a preliminary review of the Draft EIR for the County's 2020-2040 General Plan (GenPlan) Update, focusing on the goals, policies, and implementation plans for the Climate Action Plan (CAP) currently incorporated into the draft GenPlan. I do not find that the County has adequately addressed deficiencies in the process, content or promised corrections from earlier drafts of the plan. Consequently, the Draft EIR is deficient in meeting the greenhouse gas (GHG) reduction goals of the State, and even the County's own stated GenPlan goals. Therefore, the County cannot claim that a CAP is yet contained as part of the GenPlan.

The next decade is critical for turning around the global reliance on fossil fuels; and this is an essential period for doing all that can be done at every level of government to combat the crisis that is already upon us.

An EIR is intended as an informational document to provide decision-makers with a factual basis for their decisions. An EIR must describe existing conditions clearly and accurately, evaluate the potential impacts of the project (in this case the General Plan Update), identify and quantify cumulative impacts, evaluate alternatives, and mitigate significant impacts.

I am not pleased to report that the DEIR has failed on each and every one of these expectations.

General Plans are required by the State of California and represent the guiding land use document, sometimes referred to as the 'constitution', for cities and counties. All land-use policies, ordinances and regulations must be consistent with the General Plan.² California has recently included an option for municipalities and counties to include a Climate Action Plan (CAP) into a GenPlan; and Ventura County (VC) has attempted to develop such a plan during their GenPlan Update process.

The problem is that the CAP incorporated into the County draft plan, and accompanying DEIR, fail to make the necessary hard choices and do not contain or describe an acceptable CAP.

¹ <https://vcresearch.berkeley.edu/energy>

² <http://opr.ca.gov/planning/general-plan/guidelines.html>

Failure of the County's Draft GenPlan and CAP:

- The global climate challenge requires that we take an “all hands-on deck” approach to reducing greenhouse gases (GHG) at every level of government.
- The current policies in the draft GenPlan, and proposed CAP, are inadequate to meet our County's proportional contribution and needed commitment to addressing the climate crisis. The draft CAP will not adequately contribute toward making the County carbon neutral or meeting the clear goals for GHG emission reductions contained in the draft GenPlan.
- The draft CAP made no attempt to seek input from the ‘deep bench’ of climate expertise that we have in California, including many of the key members of the IPCC.³
- The draft CAP lacks sufficient metrics for evaluating whether the goals of the plan are being met. Policies should have clear action terms like: “by 2024 90,000 native trees shall be planted”. Instead, as an example from Chapter 6 on *Conservation and Open Space*, a draft CAP policy (COS3.2) reads: “The County shall encourage the protection of urban forests and native woodlands, savannahs, and tree canopy along State or County designated scenic roadways.” There are too many “shall encourage” clauses within the CAP policies and this language does not provide clear policy direction or evaluation standards; leading to qualitative policies that are impossible to measure and evaluate.
- The draft CAP barely mentions oil and gas production in VC, which is the third largest producer of fossil fuels in CA on a BTU basis, behind only Kern and LA Counties. The GenPlan and DEIR need more complete description of the oil and gas production activity in Ventura County, including the CO₂ equivalent emission of these fuels that are, to a large extent, transported out of the county to refineries in other jurisdictions.
- This oil and gas (O&G) production takes place under county permits and must be included in the emission inventory.
- To meet the GHG emission reduction goals it will be necessary to show the systematic reduction of this portion of the County's inventory. This substantial source of GHG emission is ignored in the present DEIR and GenPlan draft. There is no good excuse for this omission, which has been pointed out in prior public comments.
- When we properly count the ‘downstream’ use and combustion of fossil fuels extracted in the county, our GHG ‘footprint’ almost triples. These downstream GHG emissions must be counted in the emission inventory and a commitment must be made to wind down this activity by the end of the GenPlan period in 2040. The planet demands it.
- Methane emissions are improperly handled in the DEIR and CAP and consequently appropriate policy options have not been made available to County decision makers⁴.

³ See Attachment 1

⁴ See Attachment 2

- The emission inventory not only uses a scientifically inappropriate GWP value of methane for policy development, but the County has missed important emission sources and source strengths—as recently identified by JPL and NASA.⁵
- NOP and other public comments made during the GenPlan development suggested that the county reduce O&G production by 10%/year in order to systematically and consistently match the reduction in production with the necessary reduction in consumption of fossil fuels to meet state and county GHG emission goals. This approach was wrongly rejected by the County in 6.4.4 (pg 6-8) based on unquantified emission reductions claimed to derive from alternate policies. None of the listed alternate policies and programs contained in the County response in 6.4.4 represent anything near the needed gradual and consistent winding down of production activity.
- The problem with not directly addressing the wind-down of O&G production is that even more drastic and economically consequential remedies will be required when it is recognized that the current draft policies are insufficient to meet goals, and when the county realizes that the expected 2030-2050 GHG reductions will not be met.
- It is better to immediately confront that future and begin the logical, necessary and systematic process of reducing simultaneously the production and consumption of fossil fuels. **The economic and environmental consequences of delay far exceed the immediate costs of planning and implementing a rational and gradual cessation of O & G production.** This must be an integral part of a CAP for a County like ours and is essential to avoid unnecessary future disruption and even greater costs.
- The current emission inventory is upside down and is derived from a top-down utility-centric approach to calculating GHG emissions. This led to missing controllable emission sources and the incorrect calculation of impacts from key sources. For example, the extent of methane leaks throughout the County is seriously underreported.⁶ A new, bottoms-up emission inventory conducted by a competent and qualified outside engineering, scientific and planning team is needed in order to develop meaningful and cost-effective emission reduction strategies. These issues are complicated and require expert input.
- In Chapter 10 on *Economic Vitality* the county embraces clean energy in the most modest and inadequate way. For example, policy EV4.2 states that the county “shall support the development” of green technologies. By contrast LA County and City are aggressively attempting to attract and promote green energy jobs. Again, measurable standards are needed to evaluate progress. The county should strive to be a state-wide and national leader in clean energy and not a laggard and follower.
- VC should commit to adding two clean energy jobs for every job lost in the oil patch; and the county should provide for a just employment transition by insuring that current oil and gas workers are able to remain on the job while production is gradually decreased,

⁵ See Attachment 3

⁶ <https://www.jpl.nasa.gov/news/news.php?feature=7535>

well fields are shut in and the fields are restored to a condition where final closure and land rehabilitation is accomplished. Retraining should also be provided to transition any displaced oil workers into the faster-growing opportunities in the clean energy sector.

- Existing buildings should be incentivized to improve energy efficiency and convert to all-electric appliances.

These factors add up to the current plan being totally inadequate to justify the label of a Climate Action Plan. It is too late in the process to salvage and develop a proper CAP in the time remaining to adopt the EIR and approve the General Plan before the end of this year.

All references to a CAP currently included within the GenPlan should be deleted (e.g., P. 2-5 of the Executive Summary: “The 2040 General Plan also includes a Climate Action Plan....”) The seven quantified GHG policies listed in *Appendix D: GHG Calculations* in the GHG Gap Analysis table, are insufficient to constitute mitigation strategies under a county general plan and fail to meet the GenPlan goals and state mandates for GHG emission reduction. Due to poorly constructed and unenforceable policies, only these seven policies were available to attempt a crude quantitative Gap Analysis. Unfortunately, that quantitative analysis is mostly wishful thinking and could not be made to ensure the County would meet GHG reduction goals.

While the County extolled that the GenPlan contains 118 climate-related policies, only slightly less than half are associated with implementation programs and the policies are so weak as to be qualitative and without quantifiable GHG reduction. As has been pointed out in earlier public comments, the qualitative measures are not sufficient to meet the climate goals and fail to demonstrate a commitment on the part of the County to seriously attempt to meet our share of GHG emission reduction. Instead, we should be leaders showing the way for other jurisdictions, particularly since we are on the front lines of the climate crisis with wildfires, droughts and sea-level rise.

A viable option for the County is to concurrently undertake a two-to-three-year project to develop a serious CAP using the scientific, planning and legal expertise that abounds in this state in order to produce an acceptable Climate Action Plan. The County should develop a plan that we can proudly promote, and that has us meeting our moral and ethical contribution to the global climate challenges.

The project to develop a proper CAP should be undertaken as a mitigation to the currently inadequate DEIR and failure to demonstrate an ability to meet state climate goals. The remaining portions of the draft GenPlan could then proceed to approval during the current year as a new and technically competent team with advanced engineering, scientific, planning and legal skill are brought in to develop a CAP capable of demonstrating that the County will meet and exceed its obligations under CEQA and take a leadership role in the climate crisis that is now upon us.

Attachment 1

Climate Policy and Science Programs in California

We have less than a decade to ensure the habitability of our planet. Policy decisions to prevent the untenable costs of inaction rely on the best scientific, legal and planning minds.

We do not have to go far in order to access some of the leading scholars on the causes, technical solutions and adaptation to climate change. California has several of the world-leading institutions working on solutions to this global challenge.

Climate change and the current climate crisis is one of the most complex environmental challenges the world has ever faced. If Ventura County does not give climate status the highest attention, utilizing the tremendous technical and scientific skill we have within driving distance of this county, the General Plan is guaranteed to be out of date before it is even approved. That unfortunately appears to be the case.

A partial listing of resources that Ventura County could and should access as it develops General Plan policies to reduce the County's contribution to GHG and plan for changes to the climate and environment we cannot control. Unfortunately, the County has yet to tap the deep bench of expertise this state has to offer.

UC San Diego/Scripps Institute – Center for Climate Change Impacts and Adaptation

<https://scripps.ucsd.edu/centers/adaptation/>

Scripps has been a world-leader in climate science since the early 1960s with scientific giants including Drs. Charles David Keeling and Roger Revelle. That tradition continues to this day with the Center's mission statement: *"to build interdisciplinary partnerships to advance climate change science and test adaptation solutions."*

UC Irvine

"Addressing the urgent challenges we face in air and water quality, human health, climate change, as well as green technology through the integration of research, education, and outreach." The foci of this group of scholars encompasses atmospheric chemistry, climate modeling, fuel cells and combustion technologies, and health effects.

<http://airuci.uci.edu/>

https://scienceandtechnology.jpl.nasa.gov/people/e_rignot

<https://www.ess.uci.edu/~sjdavis/>

UC Riverside/Global Climate and Environmental Change – Dept of Earth Sciences

<https://earthsciences.ucr.edu/gcec.html>

"The decisions about climate change society makes in the next decade will determine the habitability of our planet." The focus of this group is to rigorously measure changes in the environment caused by climate alteration.

Caltech-Environmental Science and Engineering

<http://ese.caltech.edu/>

“The Environmental Science and Engineering (ESE) program reaches across traditional disciplinary boundaries in its aim to provide a comprehensive understanding of our complex environment and offer efficient and effective engineering solutions to environmental problems... Research and teaching in Environmental Science and Engineering (ESE) span the large scales of global climate variations, the local scales of urban air pollution, and the microscales of microbial ecosystems.” With over 20 faculty the program focuses on the science and engineering of atmospheric chemistry and climate effects.

UCLA-Institute of Environmental Sustainability/Center for Climate Science

“UCLA’s Center for Climate Science enables real-world climate change problem-solving by leveraging fine-scale projections of future climate to conduct interdisciplinary climate impacts research of practical use to stakeholders.” They are working to ensure water sustainability in light of climate change, are conducting regional climate assessments, and evaluating the future of drought and fire, and vulnerability of the electric grid to rising temperatures.

<https://www.ioes.ucla.edu/climate/>

<https://law.ucla.edu/centers/environmental-law/emmett-institute-on-climate-change-and-the-environment/about/>

<https://law.ucla.edu/faculty/faculty-profiles/ann-e-carlson/>

Jet Propulsion Laboratory (JPL) Center for Climate Sciences

<https://climatesciences.jpl.nasa.gov/>

“JPL is leading a project for NASA that will bring satellite observations into a format that will make them easy to compare with climate models.” Investigators at JPL work closely with other scientists and engineers in the NASA Global Climate Change program: <https://climate.nasa.gov/>

UC Santa Barbara Marine Science Institute (MSI)/Climate Change Science and the Bren School of Environmental Science and Management

<http://msi.ucsb.edu/people/climate-change-science> <https://www.bren.ucsb.edu/>

“Research in climate change science at MSI examines how climate change has affected ocean and freshwater conditions in the past as well as how it is likely to affect them in the future..... Anthropogenic climate change has been called “the great moral challenge of our century,” and the greenhouse gases emitted by our consumption of fossil fuels are its primary driver. Mitigating or adapting to climate change will require a fundamental transformation of humanity’s systems of energy production and consumption.”

Stanford University Earth Sciences/Climate Solutions

“Stanford Earth faculty work across disciplines—and at the interface of atmosphere, ocean, land, and ice systems—to characterize climate changes as well as potential responses and outcomes that matter to people.” The School has program in limiting and adapting to climate change---two areas central to Ventura County’s General Plan Update.

“From coastal communities adjusting to sea level rise to farmers struggling with drought or extreme temperatures, people are having to respond to new pressures and vulnerabilities in the places they live and work.” Faculty across all seven schools at the University are currently doing research related to energy, climate and economic vitality through the Stanford Woods Institute fo the Environment <https://woods.stanford.edu/research/focal-areas/climate> where it is recognized that *“Climate change is one of the most complex environmental challenges the world faces today.”*

Precourt Institute for Energy <https://energy.stanford.edu/about/about-us>

“Stanford University's Precourt Institute for Energy concentrates the full talents of the university on energy research and education, from basic science and technology, to policy and business.” The Precourt Institute draws on experts and resources across the university to help accelerate the transition to an affordable, low-carbon energy system for the world. More than [200 Stanford faculty members and staff scientists](#) in dozens of academic departments, independent labs and research programs work on energy-related problems. The Precourt Institute is the focal point at Stanford for scholars, business leaders, policymakers and others seeking solutions to the world’s most difficult energy challenges. “

and other interdisciplinary programs at the University:

<https://earth.stanford.edu/earth-matters/climate-change>

<https://woods.stanford.edu/people/michael-wara>

<https://law.stanford.edu/directory/michael-wara/>

<https://publicpolicy.stanford.edu/people/michael-wara>

<https://law.stanford.edu/steyer-taylor-center-for-energy-policy-and-finance/our-people/#slsnav-past-fellows>

<https://profiles.stanford.edu/noah-diffenbaugh>

UC Berkeley, Energy, Climate & Environment

<https://vcresearch.berkeley.edu/energy>

“Energy is the defining challenge of the 21st century. Leading the way on finding solutions to some of the most important global challenges, UC Berkeley and Berkeley Lab are pooling their vast expertise to help achieve an affordable, sustainable and clean supply of global energy.

Faculty and researchers at UC Berkeley and the Berkeley Lab are developing renewable and sustainable energy sources, advancing new technologies to help curb energy demand, understanding the implications for climate change and the environment, and formulating appropriate and timely policy responses.”

Their programs are organized around the Climate Readiness Institute and the Berkeley Energy and Climate Institute in addition to programs throughout the University.

UC Davis/Science & Climate: Climate Change from Science to Solutions

<https://climatechange.ucdavis.edu/news/>

<https://www.ess.uci.edu/~sjdavis/>

With a major emphasis on ways in which agriculture can contribute to climate solutions, UC Davis has a lot to offer Ventura County. Their research ranges from renewable energy solutions to responsible land use, creating flood resistant coastlines, and helping species adapt.

“When we think of climate change solutions, what typically comes to mind is the transportation we use, the lights in our home, the buildings we power and the food we eat. Rarely do we think about the ground beneath our feet..... Solutions are actions that work: They address causes, lessen impacts, raise awareness and even create new opportunities. California offers one example of how solutions can involve and benefit multiple parties. The state demonstrates that strong economic growth is compatible with strong actions to limit global warming and related risks.”

ATTACHMENT 2

Global Warming Potential (GWP) for Methane

The County Staff and Consultants appear to misunderstand the proper use of global warming potential (GWP) values for methane (natural gas) and the implications of its proper use for climate-related policies.

The US EPA, California Air Resources Board and Intergovernmental Panel on Climate Change (IPCC) all advocate use of a consistent GWP for *accounting purposes* in inventory development. This is essential if we are to compare cross-sectional progress. For example, comparing emissions from the US and EU. A consistent value is also important for temporal comparisons. Again, for example, to track the progress of emission reductions over time in California.

However, failure to properly account for the ‘true’ short-term global warming potential of methane leads to missed emission-reduction opportunities and policies. That is because the accounting convention for emission inventories is not based on the current scientific understanding of the near-term climate impacts from methane emissions. Control of methane sources today provides a powerful short-term mechanism for reducing climate impacts when understood in the context of a proper timeframe that is on the order of the atmospheric lifetime of this gas.

It is useful to review the relevant section from AR5:

“Global warming potential (GWP) is a relative measure of how much heat a [greenhouse gas](#) traps in the atmosphere. It compares the amount of heat trapped by a certain mass of the [gas](#) in question to the amount of heat trapped by a similar mass of [carbon dioxide](#). A GWP is calculated over a specific time interval, commonly 20, 100 or 500 years. GWP is expressed as a factor of carbon dioxide (whose GWP is standardized to 1). In the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, [methane](#) has a lifetime of 12.4 years and with climate-carbon feedbacks a global warming potential of 86 over 20 years and 34 over 100 years in response to emissions. User related choices such as the time horizon can greatly affect the numerical values obtained for carbon dioxide equivalents. For a change in time horizon from 20 to 100 years, the GWP for methane decreases by a factor of approximately 3.⁷ The substances subject to restrictions under the [Kyoto protocol](#) either are rapidly increasing their concentrations in [Earth's atmosphere](#) or have a large GWP”. GWP values and lifetimes from 2013 IPCC AR5 p714⁷

⁷ <http://www.climatechange2013.org/report/full-report/>

The County staff and climate consultant insisted during development of the GenPlan on using an outdated global warming potential for methane, claiming that emission inventories were mandated to be based on the outdated IPCC Second Assessment Report (SAR) GWP value of 21x the potency of CO₂, (based on a 100-year timeframe). The County continued to insist on use the outdated SAR value of 21 through most of the GenPlan deliberations based on the false claim that a GWP value of 21 was required by CARB and was part of a (nonexistent) *EPA Mandatory Rule*. What is ignored by that logic is that the only reason for this convention is to be able to compare ‘apples to apples’ from jurisdiction to jurisdiction and over time within a single jurisdiction. This outdated value is only an *accounting* convenience and does not reflect current scientific understanding.

Responding to NOP comments, the staff and consultants finally updated their use of the 100-year value for methane to be consistent with the AR5 IPCC GWP value of 28x the potency of CO₂ in the DEIR⁸:

“GWP values apply a weight to gases that have been determined by scientific studies to have increased GHG effects relative to the most common GHG, carbon dioxide (CO) [sic]. These weighted gasses are combined with CO [sic] to form a common unit of measurement called CO₂e. For this analysis GWP values of 28 for methane and 265 for nitrous oxide were used for consistency with AR5 (Myhre et. al 2013).” Pages 4.8.4-5, DEIR

Unfortunately, the GWP value of 28 is still only an *accounting* value. Policy, however, should and must be based on science. The ‘real’ impact of methane on climate is approaching four times the *accounting* value used by the County and its consultant.

The reason this is important for the DEIR and draft GenPlan is that numerous sources of methane are permitted and regulated by the County, including oil & gas production, landfills, and wastewater treatment facilities.

Turning to *Appendix D: GHG Calculations* of the DEIR, it is unclear from the unannotated tables what GHG value was used in the quantitative modeling, as numerous values are given throughout the tables⁹.

For example:

- The *Assumptions* table in Appendix D references the IPCC Fifth Report GWP value of 28 but does not indicate whether that is the value that is used in the model (a clear reason why a proprietary model is totally inappropriate for use in this public process). The DEIR states that the value of 28 was used but there is no way for an outside reviewer to verify that fact, especially when tables in Appendix D contain several different 100-year and 20-year GWP values.
- Further, the cited IPCC value of 28 is for a 100-year timeframe while the atmospheric lifetime for methane is on the order of 7 to 10 years compared with up to 200 years for carbon dioxide. Therefore, using a 100-year timeframe for methane’s GWP is appropriate for *inventory*

⁸ https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf

⁹ This is an example of why it is completely inappropriate for the County to have allowed their environmental consultant to produce results using a proprietary model which the consultants refused to make available for verification of inputs, outputs and model execution.

accounting purposes only but completely inappropriate for development of CAP policies and GHG mitigation strategies – **climate policies must be based on methane science and not on an accounting convention designed to provide useful comparisons and promote tracking evaluations.**

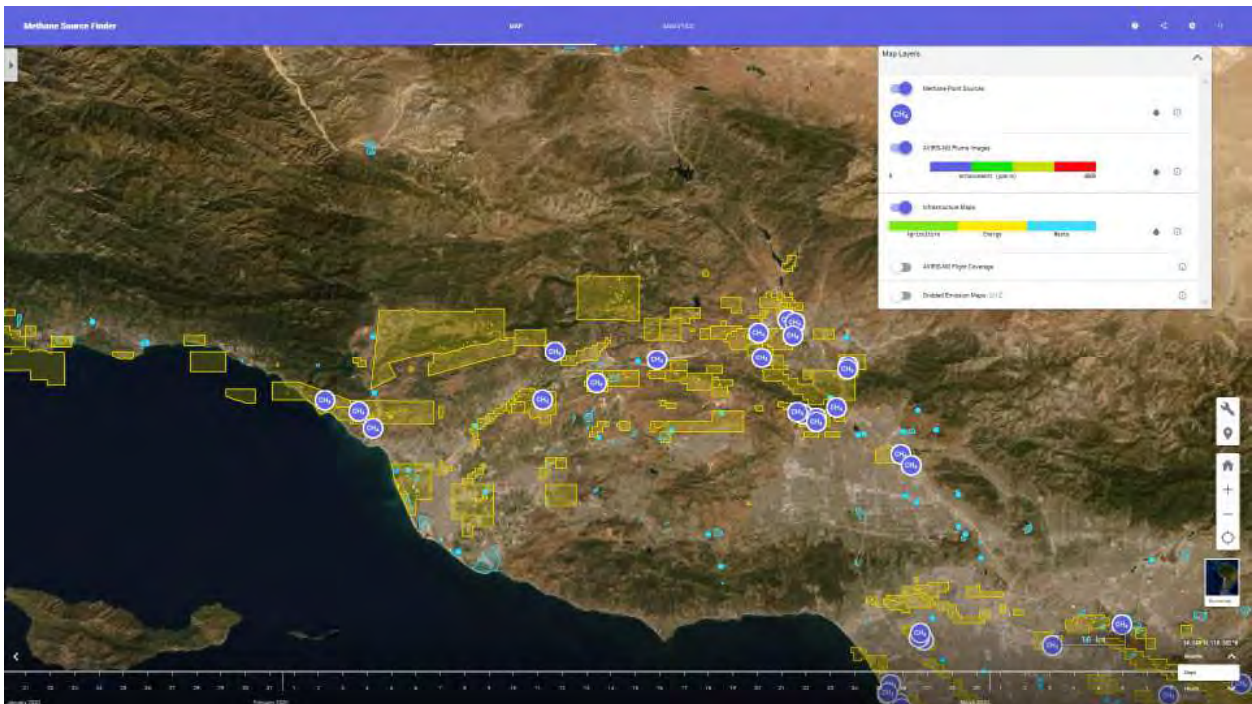
- A more appropriate and scientifically valid GWP value for policy evaluation is between 85 and 100 (consistent with the atmospheric methane lifetime). Use of this scientifically appropriate value has dramatic implications for the climate impacts and mitigation strategies within Ventura County. A simple sensitivity analysis within this range of GWP values would direct the county decision-makers to appropriate and necessary policies to mitigate those impacts.
- Much later in Appendix D in the table on *Residential Wastewater Methods*, the GWP for methane is given again as 21. So, which was used in the modeling? Once more, this points out the inappropriateness of the county allowing the consultant to build and rely upon a proprietary model.
- Similarly, in the table on *Stationary CH₄ from Incomplete Combustion of Digester Gas*, the GWP for methane is given as 21.
- Further into Appendix D on the *Conversions and GWP* table the IPCC Fifth Assessment value of 28 (100-year timeframe) is listed along with the IPCC Second Assessment Value of 21 and the Fifth Assessment 20-year value of 84. The actual value in the Fifth Assessment was presented as a range of 84-87 for 20 years.¹⁰
- This illustrates the problem with the County having allowed the environmental consultant to provide GHG data that is processed through a proprietary model. This is inconsistent with transparency and integrity of data used for making public policy. If a competent reviewer cannot look under the hood of a model to inspect the engine and evaluate its veracity, there is no way to trust the model results. As all modelers know, it's garbage-in-garbage-out, and without being able to check the engine, there is no way to know whether the model itself is valid.
- As has been suggested by several reviewers, the consultants should have included a clear sensitivity analysis of GHG emissions using alternate GWP values for methane. A reasonable sensitivity range would be to use a GWP value of 28 and 100. I can state with confidence that County decision-makers would need to consider additional methane reduction policies if they were to evaluate the implications for the higher GWP.
- As a result, the County is sorely deficient in policies within the draft GenPlan to address the various control options available for methane.

¹⁰ <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>

ATTACHMENT 3

Methane: Missed Emission Inventory Sources

NASA/JPL has recently completed a multi-year study with remote measurement of methane emissions throughout the state of California.¹¹ Ventura County is shown as having numerous ‘hot spot’ sources of methane associated with facilities under permit and regulation by the County. Prior public comments have identified missed sources of this GHG during the GenPlan review process.



An article published last week in the prestigious scientific journal *Nature* indicates that anthropogenic (man-made) emissions are likely to be up to 40% higher than previously estimated.¹² From that article:

“Atmospheric methane (CH₄) is a potent greenhouse gas, and its mole fraction has more than doubled since the preindustrial era. Fossil fuel extraction and use are among the largest anthropogenic sources of CH₄ emissions, but the precise magnitude of these contributions is a subject of debate.... This result indicates that anthropogenic fossil CH₄ emissions are underestimated by about 38 to 58 teragrams CH₄ per year, or about 25 to 40 per cent of recent estimates.”

¹¹ <https://methane.jpl.nasa.gov>

¹² <https://www.nature.com/articles/s41586-020-1991-8>

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 8:05 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:

Linda Harmon

Contact Information:

Lhart413@roadrunner.com

Comment On:

I think both are involved in overseeing environmental issues.

Your Comment:

Please look to the continued work of CFROG and follow their recommendations concerning the environment and management of oil and gas extraction. We need to stop encouraging the fossil fuel industry to exploit the area for profit while endangering local, national and worldwide concerns.

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 8:26 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:

Jennifer Johnson

Contact Information:

Jstrong12712@gmail.com

Comment On:

Climate action plan

Your Comment:

we need a Climate Action Plan with measurable targets and outcomes!

The current draft General Plan won't help Ventura County meet its climate goals. The policies are not measurable or enforceable, and are not sufficient to drive the kind of change necessary to meet greenhouse gas reduction targets. The County needs to step up, and time is running out to address the climate crisis.

Simmons, Carrie

From: Andy Ehrhart <andy.ehrhart@yahoo.com>
Sent: Wednesday, February 26, 2020 9:40 PM
To: General Plan Update
Subject: Attn RMA Planning Division - General Plan Update
Attachments: EIR Letter- final.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

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Andy Ehrhart
5785 East Hampton Way
Fresno, CA 93727
559-779-9505

Andy

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The

costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely, Andy Ehrhart

Simmons, Carrie

From: General Plan Update
Sent: Wednesday, February 26, 2020 9:57 AM
To: Andy Ehrhart
Subject: RE: Attn RMA Planning Division - General Plan Update

Good Morning Andy,

We were unable to open the attachment you have submitted via email. You may provide input prior to the close of this public comment period, which ends at **5:00 P.M. on Thursday, February 27, 2020**. Please re-send your attachment in a PDF or word document format, or see below for additional options.

You may hand deliver to:

- County of Ventura, Resource Management Agency, Planning Division Public Counter
3d Floor, Hall of Administration, 800 S. Victoria Avenue, Ventura, CA, 93009
Between the hours of 7:30 a.m. and 4:30 p.m., Monday through Friday

You may submit written comments to:

- Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

You may submit comments online at:

- <https://vc2040.org/review/comment-form>

You may submit via email to:

- GeneralPlanUpdate@ventura.org
- Please include your name or the name of a contact person, your agency or organization (if applicable), U.S. mail and if applicable, email address.

For more information, contact Susan Curtis, General Plan Update Manager at (805) 654-2497 or by email at susan.curtis@ventura.org.

Thank you

From: Andy Ehrhart <andy.ehrhart@yahoo.com>
Sent: Tuesday, February 25, 2020 7:22 PM
To: General Plan Update <GeneralPlanUpdate@ventura.org>
Subject: Attn RMA Planning Division - General Plan Update

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Andy

Simmons, Carrie

From: Elizabeth S <esiboldi@gmail.com>
Sent: Wednesday, February 26, 2020 10:17 PM
To: General Plan Update; Curtis, Susan
Subject: General Plan Comments
Attachments: CC - VenCo GP Update.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

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February 26, 2020

Ventura County Resource Management Agency, Planning Division ATTN Susan Curtis, Manager,
General Plan Update Section
800 South Victoria Avenue, L #1740
Ventura, California 93009-1740

County of Ventura Draft Programmatic Environmental Impact Report for the draft 2040 General Plan Update

Dear Ms. Curtis,

The County of Ventura (County) is in a unique position to be updating the County's primary planning document through 2040 as the impacts of climate change are becoming more severe. The Draft Environmental Impact Report (DEIR) fails to recognize the true impacts of climate change already occurring. The County is already experiencing a 2°C increase in average temperature from historical records. We are soon to re-enter drought conditions following the driest February on record. We are still recovering from two of the state's largest wildfires in modern history. We must act now, and we must act boldly.

The DEIR fails to provide enough emissions reduction to meet, or meaningfully contribute to, the California state mandated climate goals. The DEIR fails to include a Climate Action Plan with measurable targets and goals to ensure County stakeholders are informed about progress, achievements and accurate analysis of shortcomings. Language used in the [plan] such as "encourage" or "support" rather than "require" or "mandate" is insufficient and meaningless to meet acknowledged greenhouse gas reduction targets.

The DEIR is based on a wholly inadequate inventory of county emissions. The inventory was conducted from top down rather than bottom up and fails to include, or even consider, a significant portion of present emissions. Recent published studies indicate significant under-assessment of greenhouse gases, especially methane, from current fossil fuel extraction and production that must be included in the DEIR analysis.

Because the County is one of the leading producers of fossil fuels in the state, and therefore in the nation, including fossil fuel facilities NASA documents as greenhouse gas “super emitters,” the County must act now, and act boldly. Approval of the proposed DEIR would be a failure of the County’s moral and fiduciary responsibility.

Therefore, to act responsibly, the County must:

- 1) Declare a climate emergency and direct all County government offices to incorporate climate change mitigation, to the extent feasible, in all activities,
- 2) Create a Climate Action Plan 2020-2040 with measurable targets and outcomes as a separate document from the General Plan update,
- 3) Set clear climate action goals and mandate enforceable climate policies based on the declaration of a climate emergency and Climate Action Plan 2020-2040, and
- 4) As part of the Climate Action Plan 2020-2040, set five-year interval targets beginning with 2025 to immediately begin the reduction of the County’s contribution to the climate emergency.

a.

ii.

Initial five-year (2025) emergency climate goals:

Begin the elimination of fossil fuel extraction and production with the County by immediately prohibiting operation of fossil fuel facilities within one-mile buffer zones of schools, public parks, mobile home parks, medical facilities, or any residential zones,

Wind down discretionary oil and gas production by 10% per year to zero production in the County by 2030 starting with fossil fuel facilities within above one-mile buffer zones,

i.

- iii. Prohibit flaring and venting from any fossil fuel infrastructure before 2025,
- iv. Implement a policy to coordinate with the California Department of Transportation (Caltrans) and the Ventura County Transportation Commission (VCTC) to cease all freeway, highway and road infrastructure expansion projects by 2025,
- v. Implement a policy to coordinate with Caltrans and VCTC to use the existing 101 Freeway and Highway 126 corridors to build light rail for inter-city and inter-county commuting by 2040,
- vi. Implement a policy to expand existing rail infrastructure for multi-track capacity by 2040,
- vii. Implement a policy to coordinate with contracted refuse companies to divert all pre- and post-consumer food waste into the “green waste” stream for composting all County-derived food waste by 2025,
- viii. Implement an agricultural policy requiring a transition to 100% regenerative farming including carbon sequestration and soil nutrient management plans by 2030,
- ix. Transition all small gas engines used in agriculture to electric models or diesel engines running on biodiesel produced from as locally-sourced waste vegetable oil as possible by 2030,
- x. Implement a policy to transition all small, non-farm gas engines (i.e. blowers, mowers, trimmers, etc.) to electric models by 2025,
- xi. Implement a policy requiring all public transportation (buses, shuttles, and all County vehicles) to be fully electric vehicles by 2030,

- xii. Implement a County policy to prioritize walking and bicycling by connecting communities outside incorporated city limits with adequate sidewalks, bike lanes, and/or buffers from vehicle traffic,
- xiii. Implement policies to facilitate distributed renewable energy generation and storage,
- xiv. Study the potential to repurpose existing gas infrastructure as conduit for undergrounding electrical and communication lines,
- xv. Study the potential of public banking to finance County divestment from fossil fuels and investment in sustainable energy systems, and
- xvi. Implement a policy to work with existing fossil fuel industry workers to transition into clean energy jobs supporting clean energy infrastructure in the County.

Whatever price tag you want to envision for these proposals, it pales in comparison to the pending costs of sea level rise, soil degradation and crop failure, increased asthma and other heat-exasperated medical conditions, and the shortsighted failures of free market economics and laissez faire County governance to deal with climate change. To delay action, to delay investment, will only cause greater harm and increased costs for us all.

Respectfully,

Elizabeth Siboldi
553 N Ventura Ave Apt E Ventura, CA 93001

February 26, 2020

Ventura County Resource Management Agency, Planning Division
ATTN Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L #1740
Ventura, California 93009-1740

County of Ventura Draft Programmatic Environmental Impact Report for the draft 2040
General Plan Update

Dear Ms. Curtis,

The County of Ventura (County) is in a unique position to be updating the County's primary planning document through 2040 as the impacts of climate change are becoming more severe. The Draft Environmental Impact Report (DEIR) fails to recognize the true impacts of climate change already occurring. The County is already experiencing a 2°C increase in average temperature from historical records. We are soon to re-enter drought conditions following the driest February on record. We are still recovering from two of the state's largest wildfires in modern history. We must act now, and we must act boldly.

The DEIR fails to provide enough emissions reduction to meet, or meaningfully contribute to, the California state mandated climate goals. The DEIR fails to include a Climate Action Plan with measurable targets and goals to ensure County stakeholders are informed about progress, achievements and accurate analysis of shortcomings. Language used in the [plan] such as "encourage" or "support" rather than "require" or "mandate" is insufficient and meaningless to meet acknowledged greenhouse gas reduction targets.

The DEIR is based on a wholly inadequate inventory of county emissions. The inventory was conducted from top down rather than bottom up and fails to include, or even consider, a significant portion of present emissions. Recent published studies indicate significant under-assessment of greenhouse gases, especially methane, from current fossil fuel extraction and production that must be included in the DEIR analysis.

Because the County is one of the leading producers of fossil fuels in the state, and therefore in the nation, including fossil fuel facilities NASA documents as greenhouse gas "super emitters," the County must act now, and act boldly. Approval of the proposed DEIR would be a failure of the County's moral and fiduciary responsibility.

Therefore, to act responsibly, the County must:

- 1) Declare a climate emergency and direct all County government offices to incorporate climate change mitigation, to the extent feasible, in all activities,

- 2) Create a Climate Action Plan 2020-2040 with measurable targets and outcomes as a separate document from the General Plan update,
- 3) Set clear climate action goals and mandate enforceable climate policies based on the declaration of a climate emergency and Climate Action Plan 2020-2040, and
- 4) As part of the Climate Action Plan 2020-2040, set five-year interval targets beginning with 2025 to immediately begin the reduction of the County's contribution to the climate emergency.
 - a. Initial five-year (2025) emergency climate goals:
 - i. Begin the elimination of fossil fuel extraction and production with the County by immediately prohibiting operation of fossil fuel facilities within one-mile buffer zones of schools, public parks, mobile home parks, medical facilities, or any residential zones,
 - ii. Wind down discretionary oil and gas production by 10% per year to zero production in the County by 2030 starting with fossil fuel facilities within above one-mile buffer zones,
 - iii. Prohibit flaring and venting from any fossil fuel infrastructure before 2025,
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Respectfully,

Elizabeth Siboldi
553 N Ventura Ave Apt E
Ventura, CA 93001

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 10:18 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:

Elizabeth Siboldi

Contact Information:

esiboldi@gmail.com

Comment On:

Climate Action Plan

Your Comment:

February 26, 2020

Ventura County Resource Management Agency, Planning Division ATTN Susan Curtis, Manager, General Plan Update Section

800 South Victoria Avenue, L #1740

Ventura, California 93009-1740

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a.

ii.

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Respectfully,

Elizabeth Siboldi

553 N Ventura Ave Apt E Ventura, CA 93001

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 10:50 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:

Jimmy Young

Contact Information:

805.570.9002

Comment On:

Climate Action Plan

Your Comment:

Please, please do your best to create a master plan with strong environmental vision and leadership. Please give it measurable parameters and TEATH! Please hold all poluters accoubtable and lead our coubty forward.

Simmons, Carrie

From: Neal P. Maguire <nmaguire@fcoplaw.com>
Sent: Wednesday, February 26, 2020 11:13 PM
To: General Plan Update; Curtis, Susan
Cc: Jane Farkas
Subject: Draft Programmatic Environmental Impact Report for the Ventura County 2040 General Plan
Attachments: Final Letter.pdf
Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Please find attached our comment letter regarding the 2040 General Plan Draft EIR.

Neal Maguire
Ferguson Case Orr Paterson LLP



Writer's Email:
nmaguire@fcoplaw.com

Reply to:
Ventura Office

February 26, 2020

Via Email

Ventura County RMA, Planning Division
Attn: Susan Curtis, Manager
General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
Email: GeneralPlanUpdate@ventura.org
susan.curtis@ventura.org

Re: *Draft Programmatic Environmental Impact Report for the Ventura County 2040
General Plan*

Dear Ms. Curtis:

Please find below our preliminary comments regarding the Draft Environmental Impact Report (DEIR) for the Ventura County 2040 General Plan (General Plan). These comments primarily focus on fundamental or pervasive deficiencies that require substantial revisions to the DEIR. Please also find enclosed additional comments from Carbon California Company's technical staff.

Environmental Setting Discussion: Because it is so fundamentally contrary to the informational purposes of CEQA, we anticipate that many commenters will request that the DEIR incorporate the discussion of the project's existing environmental setting into the DEIR itself instead of the current DEIR approach of relying on cross-references to the voluminous

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Appendix B. It is clear that CEQA does not countenance the DEIR's lethargic approach regarding the project's environmental setting. "A number of courts have noted as a general principle that readers should not be forced to sift through appendixes to detect the EIR's environmental analysis." (Kostka & Zischke, Practice Under the California Environmental Quality Act (2d ed Cal CEB) §11.22.)

CEQA contemplates that appendixes will be utilized for "highly technical and specialized analysis and data" (CEQA Guidelines, § 15147), but not for central information like the discussion of a project's environmental setting, which typically forms the baseline by which a project's impacts are measured. (CEQA Guidelines, § 15125(a).) CEQA identifies one limited circumstance where an EIR may incorporate by reference an environmental setting description. (CEQA Guidelines, § 15150(e)(1).) Appendix B does not fall into that exception.

Effect of New Land Use Designations: Table 2-1 provides the maximum density/intensity, minimum lot size, and maximum lot coverage requirements for the General Plan's proposed land use designations. The DEIR notes that some designations retain their previous requirements. The DEIR (p. 2-6) also notes that other designations incorporate requirements from "compatible zoning designation[s]." It is not clear from the existing discussion in the DEIR how that type of incorporation will impact the maximum density/intensity, minimum lot size, and maximum lot coverage requirements for properties within the General Plan area. Please identify – with at least sufficient specificity to analyze the potential environmental impact of such modifications – which properties will see modifications to their maximum density/intensity, minimum lot size, and maximum lot coverage requirements.

General Plan Area as Scope of CEQA Review: In several sections of the DEIR, the DEIR limits its analysis of the General Plan's direct and indirect impacts to only the General Plan area (note that this issue is distinct from DEIR Table 5-3's identification of the scope of cumulative impact analyses¹). For example, at page 4.12-21 of the DEIR, the DEIR concludes that the General Plan,

would contribute to a reduction of new oil and gas production in the unincorporated county, and to the extent the new oil and gas that would have been produced in the unincorporated area would also have been consumed in California, the demand for California-produced oil and gas would be satisfied through the importation of additional oil and gas from other countries and Alaska, which in turn could have indirect environmental impacts such as those

¹ With that said, the abbreviated parenthetical explanations provided for the scope of the cumulative impacts analyses in Table 5-3 are inadequate under CEQA Guidelines section 15130(b)(3).

associated with transporting the oil and gas from outside of Ventura County.

Even though the DEIR concludes that the General Plan could potentially adversely impact the environment, the DEIR declines to analyze those impacts because “[s]uch impacts, however, would largely occur outside the 2040 General Plan project area.”

It is fundamental under CEQA that an EIR may not artificially constrain its analysis of direct or indirect impacts based on a project area or an agency’s jurisdictional boundaries. (See *Muzzy Ranch Co. v. Solano County Airport Land Use Com.* (2007) 41 Cal.4th 372, 387; *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1582–1583; *Napa Citizens for Honest Gov’t v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 369.) While the geographic proximity of an impact may affect the level of specificity required for an EIR’s analysis of an impact, “the purpose of CEQA would be undermined if the appropriate governmental agencies went forward without an awareness of the effects a project will have on areas outside of the boundaries of the project area.” (*Napa Citizens, supra*, 91 Cal.App.4th at p. 369.)

County Sanitation Dist. No. 2 v. County of Kern guides the DEIR’s obligations here. In that case, a County of Kern ordinance prohibited “the application of sewage sludge on land located within the jurisdiction of Kern County.” The sanitation district noted that, as a result of the ordinance, it would have to haul biosolids by truck to a neighboring county and even Arizona. Such hauling would have its own significant, adverse environmental impact arising from increased vehicle emissions. That indirect impact still needed to be analyzed, and mitigated, by the County of Kern, even though it occurred outside the county’s boundary.

Here, the DEIR must analyze the impacts associated with “the importation of additional oil and gas from other countries and Alaska.” The DEIR must also analyze all other impacts that were artificially discounted because they “would largely occur outside the 2040 General Plan project area.”

Project Build-Out Information: Currently, the DEIR typically does not provide, in its impact analyses sections, an adequate level of detail regarding the likely distribution of future development under the General Plan. Although the DEIR is programmatic in nature, “The principle that EIRs can and should make reasonable forecasts is well established in case law.” (Kostka & Zichke, *supra*, § 11.32.) “Predicting the physical changes a project will bring about is an inescapable part of CEQA analysis.” (*County Sanitation Dist. No. 2, supra*, 127 Cal.App.4th at p. 1586; *Planning & Conservation League v. Dept. of Water Resources* (2000) 83 Cal.App.4th 892, 919.) A “lead agency cannot defer its analysis of any significant effect of the general plan to later-tiered EIRs.” (Governor’s Office of Planning and Research, General Plan Guidelines

(2017), p. 271 [citing *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182].²)

Applying those principles here, the DEIR must provide substantially more information regarding the projected build-out under the General Plan, including, with much more specificity, the probable location of the projected development. In *Napa Citizens, supra*, 91 Cal.App.4th at p. 370, the Court of Appeal dealt with a similar lack of information and determined that an EIR for a 3,000-acre specific plan must, “in order to fulfill its purpose as an informational document . . . identify the number and type of housing units that persons working within the Project area can be anticipated to require, and identify the probable location of those units.”

Despite this obligation, the DEIR typically avoids identifying with any specificity the projected buildout under the General Plan. This is true even for the forecasted development within the 1.2 percent of the County that is comprised of residential, commercial, mixed use, and industrial land uses. That is, the DEIR does not identify how future growth will be distributed among the many areas designated as Existing Community or Urban. The DEIR should identify the Existing Communities and Urban areas and provide a discussion of the potential for, and likelihood of, future development in each. It is not appropriate to generalize, as the DEIR does, diverse areas such as Lake Sherwood, Nyeland Acres, the Ojai Valley, Saticoy, Faria Beach, the Lockwood Valley, and Piru.

The DEIR also avoids identifying projected buildout under the General Plan even though, for the purpose of analyzing transportation and traffic impacts, County staff developed the 2040 Ventura County General Plan Land Use Model to “reflect[] the land use growth assumptions in the proposed Ventura County 2040 General Plan for the unincorporated areas.” (DEIR Appendix F, p. F-2.) Yet, the DEIR does not describe these growth assumptions nor does it utilize those projections throughout the DEIR. Instead, the DEIR is left to state, over and over again, that “[b]ecause of the programmatic nature of the 2040 General Plan, a precise, project-level analysis of the specific effects of future development on special-status species is not possible at this time.” This approach is inadequate even for a programmatic analysis of a general plan.

What is more, instead of adopting consistent land use growth assumptions and utilizing them throughout the DEIR, the DEIR actually intentionally misleads the public as to the probable location of future development. For example, as noted at page 3-1 of the DEIR, the Los Padres National Forest and certain adjacent private property (presumably the Lockwood Valley) comprise 574,000 acres and 47 percent of the County’s acreage. (At the outset, please specify the private acreage included in these figures.) Notably, the DEIR designates the Los Padres National Forest as Open Space rather than State, Federal, Other Public Lands despite the fact that the

² Chapter 10, CEQA, of the General Plan Guidelines may be located at: http://opr.ca.gov/docs/OPR_C10_final.pdf.

latter specifically “applies to state-and federally-owned parks, forests, rangelands, coastal resources, and/or recreation areas.”

This is not just an issue of labeling. By recharacterizing the Los Padres National Forest as Open Space, the DEIR misleads the public as to what portions of the County can accommodate future development. This sleight of hand in turn allows the DEIR to imply that future development will be widely dispersed throughout the County. For example, in discussing the General Plan’s growth projections, the DEIR (pp. 2-11, 3-20) states that 56 percent of the “forecast residential development would be spread throughout the approximately 98 percent of the County’s unincorporated areas in agriculture, open space, and rural land use designations.”

As an initial matter, note that CEQA does not allow a project’s impacts to be minimized in this fashion. (See *Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 121.) By purporting to disperse the future development and isolating that development’s impacts, the DEIR “runs counter to the combined approach that CEQA cumulative impact law requires.”

Just as importantly, the DEIR’s approach obfuscates the likely location, and impacts, of future development. As noted above, the DEIR includes in its open space area the 574,000-acre Los Padres National Forest. However, even the DEIR (p. 5-6) recognizes elsewhere, “Forest lands, specifically the Los Padres National Forest, are also present in Ventura County; however, forestry resources are concentrated in the national forest, which is protected from future development.” Consequently, forecast residential development will be more concentrated outside of the Los Padres National Forest.

The DEIR’s sleight of hand is also made possible because the DEIR does not analyze the General Plan’s consistency with the Los Padres National Forest Land Management Plan, which may be found at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5337817.pdf and is hereby incorporated by reference. This omission is particularly glaring because DEIR Appendix B (p. 3-108) specifically acknowledges the Los Padres National Forest Land Management Plan as one of several “plans, policies, and regulations of other agencies that affect growth and development within Ventura County.” Please include an analysis of the General Plan’s consistency with the Los Padres National Forest Land Management Plan, especially if the DEIR maintains the fiction that material development may occur in the National Forest.

Regional Plan Consistency: The DEIR, in its analysis under Impact 4.11-3 (Cause an Environmental Impact Due To A Conflict With A Regional Plan, Policy, or Program), considers the General Plan’s consistency with certain regional plans and programs. The DEIR’s discussion of these plans is already outdated. The DEIR concludes that the General Plan is consistent with SCAG’s 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy. In 2019, SCAG released for public review the Draft Connect SoCal plan, the 2020-2045 Regional Transportation Plan and Sustainable Communities Strategy. SCAG expects to consider adoption

of the final plan in April.³ The DEIR should incorporate updated information in the 2020-2045 RTP/SCS and analyze the General Plan's consistency with the 2020-2045 RTP/SCS.

The DEIR also purports to analyze the General Plan's consistency with the Regional Housing Needs Assessment (RHNA) program. Putting aside for now the improper deferral of the General Plan's housing element and the DEIR's failure to consider the 2020 RHNA updates, the DEIR's land use consistency analysis concludes in a conclusory fashion and without substantial evidence that implementation of the General Plan is consistent with the RHNA. The DEIR does not even discuss or analyze the County's consistency with the 5th cycle RHNA allocations. Please include a discussion regarding whether the County is expected to achieve its target of 1,015 new dwelling units (in the specified income categories) by October 2021.

Also, in its discussion of the 6th cycle RHNA allocations, the DEIR states, "As part of this process, SCAG will work with the County and the cities within the county to develop a methodology to distribute the RHNA as determined by HCD." Please update the DEIR to reflect that HCD has approved SCAG's allocation distribution methodology.⁴ The DEIR should also analyze whether the General Plan and its assumptions are consistent with that methodology.

Foreseeable Pipeline Impacts: Section 4.12 of the DEIR purports to analyze the General Plan's impacts on mineral and petroleum resources. In discussing Impact 4.12-4, the DEIR acknowledges that the General Plan will likely require pipelines to be "constructed to meet the requirements in Policies COS-7.7 and COS-7.8." The DEIR states at page 4.12-31 that the "programmatic effects" of new oil, gas, or produced water "are included in the environmental impact analyses of this draft EIR." Please provide cross-references to each such discussion in the DEIR.

However, we also note that the programmatic analyses appear to be illusory for similar reasons as those discussed above with regard to General Plan build-out. DEIR Section 4.4 (biological resources) is illustrative. Section 4.4 recognizes that "[p]roposed policies of the 2040 General Plan addressing flaring and trucking associated with new discretionary oil and gas wells could result in the construction and operation of new pipelines for the conveyance of oil, gas, or produced water." Section 4.4 then states, "Because of the programmatic nature of the 2040 General Plan, a precise, project-level analysis of the specific effects of future development on special-status species is not possible at this time." The DEIR then repeats its cut-and-paste discussion of the Existing Community and Urban areas and notes that "future development," not just pipelines, "could occur in the vicinity of rivers, creeks, and drainages (e.g., Santa Clara

³ See: <https://www.connectsocial.org/Pages/details.aspx?list=Announcements&lid=35>.

⁴ See: <http://www.scag.ca.gov/programs/Documents/RHNA/HCD-Review-RC-Approved-Draft-RHNA-Methodology.pdf>.

February 26, 2020

Page 7

River, Ventura River, and tributaries) may be within suitable habitat for” certain identified species.

The DEIR identifies in Figure 4.12-3 the General Plan’s land use designations that allow oil and gas production. The DEIR identifies on several maps the oil fields within the County. The DEIR identifies on several maps the location of oil and gas wells. The DEIR identifies in Figure 4.12-4 the major oil transmission pipelines in the County. The DEIR identifies in Figure 4.12-5 the major gas transmission pipelines in the County. Albeit based on numerous assumptions, the County identifies in Section 4.12 which wells are likely to be able to feasibly connect to a major transmission line. However, despite having all of this information, the DEIR does not continue to connect the dots to identify the reasonably foreseeable location of future pipelines. The DEIR must do so, and it must analyze the potential environmental impacts of those foreseeable physical changes arising from the General Plan.

Lastly with regard to Impact 4.12-4, the DEIR spends much of its time analyzing the feasibility of General Plan Policies COS-7.7 and COS-7.8. It does not appear, though, that the DEIR’s feasibility analysis considers the capacity of existing transmission pipelines to accommodate the additional quantities that would be generated by General Plan Policies COS-7.7 and COS-7.8. The DEIR must consider that potential constraint, as it also affects the analysis in the DEIR regarding the General Plan’s potential impacts on the loss of availability of petroleum and mineral resources.

State Review Period: As the County is aware, it sent the DEIR to the State Clearinghouse for distribution to the State agencies for review and comment. The Clearinghouse indicates that the review period is January 13th to February 26th. Under Public Resources Code section 21091(c)(2), January 13th may be included as the first day of the 45-day review period so long as the Clearinghouse distributed the DEIR to the State agencies on that day. Unfortunately, the Clearinghouse did not actually distribute the DEIR on January 13th. As the County is aware, CEQA’s procedural requirements must be adhered to strictly. Consequently, the County should recirculate the DEIR for an actual 45-day review period through the Clearinghouse.

We appreciate the opportunity to provide these and we look forward to seeing them addressed to ensure that the potential environmental impacts of the 2040 General Plan are properly analyzed in the DEIR, which will assist in streamlining future projects within the County. Please include me on all future noticing for the DEIR or the General Plan itself.

Sincerely,
Neal Maguire

NPM/tm
Attachment

**Carbon California’s Comments Regarding
Ventura County’s Draft Environmental Impact Report
2040 General Plan**

| Chapter | Section | Page | Comment |
|----------------------|-------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Introduction | 1.4 Lead, Responsible, and Trustee Agencies | 1-5 | Because the DEIR incorporates the Los Padres National Forest into the designated Open Space areas and then analyzes that Open Space area as a whole, the BLM or USFS should be identified in this section and their authority over the National Forest should be discussed. The County must also ensure that is has satisfied any consultation obligations with federal agencies overseeing the Los Padres National Forest. (CEQA Guidelines, § 15086()(a)(3), 15375.) |
| 2. Executive Summary | 2.2.5 Structure and Content of the General Plan | 2-8 | Section 65560 of the Government Code, referenced in the <i>Open Space</i> land use description of Table 2-2, defines “Open-space land” as “any parcel or area of land or water that is devoted to an open-space use as defined in this section, and that is designated on a local, regional, or state open-space plan. ” Because this definition does not include federal land/forests, the Los Padres National Forest should be calculated under the “State, Federal, Other Public Lands” land use designation. |
| 2. Executive Summary | 2.2.5 Structure and Content of the General Plan | 2-8 2-10 | The acreage provided in Table 2-2 for “State, Federal, Other Public Lands” is 8,085 acres (< 1% of total county acreage). However, the Los Padres National Forest is approximately half of the acreage within the County. The land use description on page 2-10 states, “This designation applies to state- and federally-owned parks, forests , rangelands, coastal resources, and/or recreation areas”. The acreage from the Los Padres National Forest should be included under this land use designation. |

**Carbon California’s Comments Regarding
Ventura County’s Draft Environmental Impact Report
2040 General Plan**

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| <p>2. Executive Summary</p> | <p>2.2.5 Structure and Content of the General Plan</p> | <p>2-40</p> | <p>A table/list of ALL General Plan updates/policies should be provided in the executive summary. Table 2-4 is a list of impacts and policy mitigation measures and is misleading to the public in that it appears to discuss the overall General Plan policies. Having a matrix of all proposed policies indicating impacts to relevant issue areas would provide clarity on the intentions of the General Plan updates.</p> |
| <p>3. Project Description</p> | <p>3.4 Structure and Content of the General Plan</p> | <p>3-12</p> | <p>Within the <i>Economic Vitality Element</i> section on page 3-12, it states “[g]oals, policies, and implementation programs in this element pertain to business and employment; creating a diversified economy and fostering strong economic foundations by facilitating the retention, expansion, and attraction of key industries and businesses...” To satisfy, among other items, its requirement to analyze land use consistency, these key industries should be defined in the DEIR by providing a list and analysis of their economic significance in the county and impacts the General Plan updates may impose.</p> |
| <p>4.3. Air Quality</p> | <p>4.3.2 Environmental Impacts and Mitigation Measures</p> | <p>4.3-8 4.3-10</p> | <p>General Plan Policy COS 7.4 states, “The county shall require discretionary development permits for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible, to reduce air pollution and greenhouse gas emissions from internal combustion engines and equipment.”</p> <p>Policy AG-5.2 states, “The county shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.”</p> |

**Carbon California’s Comments Regarding
Ventura County’s Draft Environmental Impact Report
2040 General Plan**

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| | | | <p>The language between these two policies should not differ if they intend to achieve the same goal and project objective, especially if the DEIR is going to identify GHG emissions impacts as significant and unavoidable.</p> |
| <p>4.3 Air Quality</p> | <p>4.3.2 Environmental Impacts and Mitigation Measures</p> | <p>4.3-11</p> | <p>Implementation Program J referenced on page 4.3-11, states that “[t]he County shall coordinate with the VCAPCD to develop a program to identify funding sources or develop financial or regulatory incentives to encourage the switch to electric or alternatively fueled agricultural equipment, when feasible” .</p> <p>Oil and gas operations should be included in this funding program if they are “required” to use electrically-powered equipment. Alternatively, an implement program, similarly to the one outlined in Implementation Program J, should be integrated into the General Plan to help “encourage and support” the transition to electric/renewable powered equipment for oil and gas operations.</p> |
| <p>4.3 Air Quality</p> | <p>4.3.2 Environmental Impacts and Mitigation Measures</p> | <p>4.3-21 4.3-22</p> | <p>The section regarding <i>Operational Emissions</i> referenced the existing setback requirements for oil and gas wells in the Non-Coastal and Coastal Zoning Ordinances. Currently, the 500-foot setback requirement can be waived by occupants of the sensitive uses. With Policy COS-7.1, can the 1,500-foot setback requirement be waived by occupants? This should be clarified in the analysis.</p> |
| <p>4.6 Energy</p> | <p>4.6.2 Environmental Impacts and Mitigation Measures Table 4.6-2</p> | <p>4.6-20</p> | <p>The document states that trends in natural gas consumption within Ventura County are assumed to increase (Table 4.6-2). <i>Implementation Program M: Oil and Gas Tax</i> does not align with the General Plan’s objective to “...promote efficiency and economic vitality” regarding <i>Public Facilities, Services, and Infrastructure</i>.</p> |

**Carbon California's Comments Regarding
Ventura County's Draft Environmental Impact Report
2040 General Plan**

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| 4.8 Greenhouse Gas Emissions | | | This needs to be analyzed with a plan on how the County intends to supply these demands with renewable energy sources. |
| 4.8.2 Environmental Impacts and Mitigation Measures | 4.8-47 | | <p>Page 4.8-47 states, the adoption of a reach code is predicated on approval of a cost-effectiveness study by the CEC. This study should have been conducted prior to the release of the DEIR. This study would be supplemental to this EIR to effectively analyze the social and economic impacts regarding various issue areas throughout the report. For example, will the implementation of new building standards adversely affect the availability of affordable housing?</p> <p>Policies that rely on the approval of this study should be removed from the General Plan updates.</p> |
| 4.12 Mineral and Petroleum Resources | 4.12.2 Environmental Impacts and Mitigation Measures | 4.12-13 | <p>The public health study referenced regarding Impact 4.12-3 on page 4.12-13 is from a study conducted in Maryland, where environmental regulations and the overall geographical setting differs greatly. The DEIR contains no substantial evidence as to why this Maryland study is transferable to Ventura County. A localized analysis of the actual exposures and subsequent health impacts of the oil and gas facilities in the Ventura Basin should be required before the county implements a specific set-back requirement.</p> |
| 4.12 Mineral and Petroleum Resources | 4.12.2 Environmental Impacts and Mitigation Measures Figure 4.12-1 & 4.12-2 | 4.12-15 4.12-16 | <p>The scale of the maps identified in Figure 4.12-1 and 4.12-2 make it difficult to see the scope of wells affected by the setback requirements. Multiple maps should be included in this section displaying a more accurate scale so that the maps are useful to the public to properly see</p> |

**Carbon California’s Comments Regarding
Ventura County’s Draft Environmental Impact Report
2040 General Plan**

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| | | | <p>the scale of impact. Additionally, a table should be provided identifying the number of wells affected by this policy.</p> |
| <p>4.12 Mineral and Petroleum Resources</p> | <p>4.12.2 Environmental Impacts and Mitigation Measures Figure 4.12-1</p> | <p>4.12-15 4.12-18</p> | <p>Subparagraph titled “Significance after Mitigation” on page 4.12-18 states, “NCZO defines schools as educational facilities for pre-college levels of instruction; specifically limited to elementary, middle school and high schools offering full curricula as required by State Law.” Colleges, such as Thomas Aquinas College, do not meet this definition but are identified in the map provided in Figure 4.12-1. Theses Colleges should be removed from the analysis of the maps as they do not apply to this definition of a school.</p> |
| <p>4.12 Mineral and Petroleum Resources</p> | <p>4.12.2 Environmental Impacts and Mitigation Measures</p> | <p>4.12-21</p> | <p>The fourth paragraph of page 4.12-21 acknowledges that there will be indirect environmental impacts from transporting oil and gas from outside of Ventura County. An in-depth analysis of this should be included in impact analyses sections and in the Cumulative Impacts section of the document. Despite being outside the project plan area, which does not alleviate an EIR’s burden to consider a project’s impacts, this also does not coincide with the objectives of the project, and the requirements under CEQA, to “mitigate impacts of climate change”.</p> |
| <p>4.17 Utilities</p> | <p>4.17.1 Background Report Setting Updates</p> | <p>4.17-1 4.17-2</p> | <p>A table should be provided in this section showcasing the percent of Net MW Reported by fuel type that supports the County of Ventura’s various energy demands. In addition to this, an analysis of the feasible projected Net MW that can be supplied by renewable energy sources should be provided.</p> |

**Carbon California's Comments Regarding
Ventura County's Draft Environmental Impact Report
2040 General Plan**

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| | | | <p>Based on the Table 7-8 on page 7-48 of the Background Report, 99% of the total Net MW Reported at Operational Power Facilities in Ventura County in 2016 were fueled by Gas. The projected timeline and plan to decrease gas fueled energy resources at these facilities should be provided in the analysis. This was not addressed nor was it properly analyzed in the Utilities section of the DEIR.</p> |
| <p>4.17 Utilities</p> | <p>4.17.2 Environmental Impacts and Mitigation Measures</p> | <p>4.17-10 4.17-11</p> | <p>The policies relating to oil and gas production facilities should be included in this section. Oil and gas production facilities meet the definition of a "utility facility" and the impacts associated with these facilities need to be analyzed.</p> <p>Impact 4.17-1 should be potentially significant and mitigation measures need to be analyzed and provided.</p> |

Simmons, Carrie

From: James Brehm <james.b.brehm@gmail.com>
Sent: Wednesday, February 26, 2020 11:45 PM
To: Curtis, Susan; General Plan Update
Subject: 2040 General Plan Update - Public Comment
Attachments: Letter to Ventura County Regarding Climate Action Plan.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

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February 26, 2020

Ventura County Resource Management Agency, Planning Division
ATTN Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L #1740
Ventura, California 93009-1740

Regarding a Climate Action Plan for the draft 2040 General Plan Update

To Ms. Curtis and the General Planning Committee,

I am extremely alarmed by the lack of foresight the current draft of the 2040 General Plan update. Climate change is coming to Ventura. Specifically, our county has warmed more than any in the lower-48 states with an average increase of 2.6°C as of December 2019.* Maybe you are unaware of the science. If we do not drastically alter our course we can expect to witness the following effects by 2100:

- A conservative estimate of 1.8-3.6 feet and possibly up to 10 feet of sea level rise
- Larger, more frequent wildfires
- Water and food shortages from drought and crop failure
- Ocean acidification and increased oxygen-free 'dead zones' which will threaten the existence of all marine life as we know it
- Mass extinction of life on Earth, collapse of ecosystems.
- Increased disease
- Failure of economic markets
- Mass migration of "climate refugees"

Get on the right side of history and prove in this General Plan that you value our children more than oil money. Now is the time to act. Those who came before us were not aware of the problem, and those who come after us will be unable to do anything about it. **Now is the only time.** Though there is reference to a Climate Action Plan in the General Plan, it has no teeth. It has no deadlines, it has no actionable goals, and it sits next to policies like this one:

"Through Policy COS-6.2, the County would maintain maps of mineral deposits identified by the State Geologist as having regional or statewide significance and any additional deposits as may be

identified by the County . . . the purpose of this overlay zone is to safeguard future access to the resources, facilitate the long-term supply of mineral resources in the county, and notify landowners and the public of the presence of the resources."

[https://vcrma.org/vc2040.org/images/Draft_EIR - Jan. 2020/VCGPU-EIR_4.12_Minerals_Petroleum.pdf](https://vcrma.org/vc2040.org/images/Draft_EIR_-_Jan._2020/VCGPU-EIR_4.12_Minerals_Petroleum.pdf)

We really can't compromise here. This is about survival. Scientific fact: if we (humans) completely halt all new drilling for oil and just suck dry the reserves we're already tapped into, and burn just that, we will be sent over the threshold for catastrophic, feedback loop global warming. It will mean the end of civilization as we know it. This is not worth any amount of money. We must not permit any new extraction, and we must have a plan to draw down the extraction that is already occurring within Ventura County.

I am not writing this because I am an environmentalist, I am writing this because I demand that you protect the future of my children.

Respectfully,

James Brehm
553 North Ventura Ave, Apt E
Ventura, CA 93001
631-875-0514

*If you'd like any references for any of the facts in this letter, I will gladly supply upon request.

**Also, please let me know if there's anything else I can do to help make these changes happen besides sending this message. I am willing to put as much energy as necessary into this if it would help.

February 26, 2020

Ventura County Resource Management Agency, Planning Division
ATTN Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L #1740
Ventura, California 93009-1740

Regarding a Climate Action Plan for the draft 2040 General Plan Update

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[https://vcrma.org/vc2040.org/images/Draft_EIR - Jan. 2020/VCGPU-EIR 4.12 Minerals Petroleum.pdf](https://vcrma.org/vc2040.org/images/Draft_EIR_-_Jan._2020/VCGPU-EIR_4.12_Mineral_Petroleum.pdf)

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Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 11:55 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Follow Up Flag: Follow up
Flag Status: Flagged

You have a NEW Comment

Name:

James Brehm

Contact Information:

james.b.brehm@gmail.com

Comment On:

Draft Environmental Impact Report

Your Comment:

To the General Plan Committee, or whomever it may concern,

I am extremely alarmed by the lack of foresight in the current draft of the 2040 General Plan update. Climate change is coming to Ventura. Specifically, our county has warmed more than any in the lower-48 states with an average increase of 2.6°C as of December 2019.* Maybe you are unaware of the science. If we do not drastically alter our course we can expect to witness the following effects by 2100:

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- Increased disease
- Failure of economic markets
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having regional or statewide significance and any additional deposits as may be identified by the County . . . the purpose of this overlay zone is to safeguard future access to the resources, facilitate the long-term supply of mineral resources in the county, and notify landowners and the public of the presence of the resources."

https://vcrma.org/vc2040.org/images/Draft_EIR_-_Jan._2020/VCGPU-EIR_4.12_Minerals__Petroleum.pdf

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I am not writing this because I am an environmentalist, I am writing this because I demand that you protect the future of my children.

Respectfully,

James Brehm
631-875-0514

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 7:52 AM
To: Simmons, Carrie
Subject: FW: General Plan and EIR

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Kristen Kessler <kess4652@gmail.com>
Sent: Wednesday, February 26, 2020 10:57 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan and EIR

Dear Ms. Curtis,

I am writing to express my concerns about the current draft of the General Plan and the Environmental Impact Report. The plan has some laudable goals, but they are aspirational and unenforceable.

We should have a sunset plan for oil and gas production. Oil should be transported by pipeline instead of trucks. Flaring should be prohibited, except for testing purposes.

We need to invest in green buildings, green jobs, and renewable energy. The time for business as usual is over. Our county is the fastest warming county in the lower forty-eight states. We need a strong general plan that addresses the climate crisis we face.

Thank you,
Kristen Kessler
Ventura

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 7:53 AM
To: Simmons, Carrie
Subject: FW: Public Comments General Plan Update DEIR
Attachments: VCHP Public Comments County GP DEIR.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740 Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org For online permits and property information, visit VC Citizen Access

Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

-----Original Message-----

From: Diane Underhill <dunderhill@sbcglobal.net>
Sent: Thursday, February 27, 2020 12:22 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Kathy Bremer <kcbremer@gmail.com>; Carol Lindberg <lindbergcd@msn.com>; Norene Charnofsky <ncharnofsky@gmail.com>; Purcell Leslie <lesliepurcell@gmail.com>; Thompson Will <wily2@icloud.com>; Hines Jim <jhcasitas@gmail.com>; Diane Underhill <dunderhill@sbcglobal.net>
Subject: Public Comments General Plan Update DEIR

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Susan,

Please find the attached public comments on the Ventura County General Plan Update DEIR.

Thank you,
Diane Underhill, President
Ventura Citizens for Hillside Preservation

1585 E Thompson Blvd.
Ventura, CA 93001
805.643.1065
dunderhill@sbcglobal.net



26 February 2020

To: Susan Curtis
800 S. Victoria
Ventura, CA 93003
Susan.Curtis@ventura.org

Re: Public Comments on Ventura County General Plan Update DEIR
From: Ventura Citizens for Hillside Preservation (VCHP)

VCHP Public Comments on General Plan Update DEIR

The General Plan Update section on “Climate Change and Greenhouse Gas Emissions Reduction” begins:

“Climate change is a global problem caused by the cumulative warming effects of greenhouse gas (GHG) emissions. Governments at all levels, non-governmental agencies, and private citizens and businesses are now acting to mitigate GHG emissions as quickly as possible to reduce or avoid the most catastrophic effects of climate change.”

The above statement is good. It clearly acknowledges that these GHG emissions are harming the Earth's environment. Because this General Plan Update will guide our County's development and actions for the next 20 *critical climate change* years, it is paramount that we set strong policies in this Plan and in our Climate Action Plan (CAP). We need enforceable policies that can quantify, measure, monitor and reduce greenhouse gas emissions, both existing and projected, over a specified time period in order to meet the state mandated greenhouse Gas (GHG) emission reduction goals.

[The Los Angeles Sustainability Plan](#) has defined objectives aimed at meeting the goals of the Paris Climate Agreement that Ventura County should emulate, such as:

“By eliminating fossil fuel production in the county, including drilling, production and refining, the county will protect its residents from harmful local pollution that inequitably burdens low-income communities and communities of color.”

and

“Collaborate with DOGGR and unincorporated communities and affected cities to develop a sunset strategy for all oil and gas operations that prioritizes disadvantaged communities.”

We know that climate change is caused by fossil fuel production and consumption, yet our Climate Action Plan (CAP) only addresses consumption by encouraging electric fuel vehicles and clean power for homes and businesses, etc. Unfortunately, the CAP does not have a concrete plan to reduce and/or phase out production-related fossil fuel pollution. Ventura County is the third largest oil and gas producing county in California. It is imperative that we must do *our* part in the fight against worldwide climate change. We must set rigorous policies in this General Plan Update to reduce oil and gas production pollution and set goals to phase out fossil fuel production. We must create strong and

measurable CAP policies that have genuine force and effectiveness that can address the adverse environmental impacts of future projects. If our policies have no teeth, then future GHG emitting projects will slide by based on “compliance” with an inadequate CAP. Consider the following policies from the California Environmental Quality Act (CEQA) and employ them to improve and strengthen our CAP policies.

CEQA 15183.5(b)

Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below.

Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

- (1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:
 - (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
 - (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
 - (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
 - (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
 - (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
 - (F) Be adopted in a public process following environmental review.
- (2) Use with Later Activities. A plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project

Specific Changes for the Draft Environmental Impact Report:

Buffer Requirements – The proposed buffers for locating oil and gas facilities a safe distance from schools and homes are inadequate. Studies show adverse public health impacts occur if oil and gas facilities are located within a half a mile of homes and schools.

Action Needed: The buffer requirements should be increased from the currently proposed 1,500 feet to at least 2,500 feet.

Trucking vs. Pipeline – Currently oil and produced water from local oil wells are mainly transported by truck. Trucking creates safety hazards on county roads, exposes residents to toxic diesel/particulate pollution, and causes substantial amounts of greenhouse gas emissions. Draft General Plan Policy

COS-7.7 attempts to address this problem by requiring newly permitted oil wells to use pipelines instead of trucks to transport oil and produced water. Unfortunately, the DEIR undermines Policy COS-7.7 by concluding that the costs of constructing pipeline connections may make this policy infeasible because it may lead to a loss of petroleum resources. Trucking would be allowed if pipelines are deemed infeasible. This would create a costs-are-too-high loophole big enough for oil companies to drive hundreds of thousands diesel trucks through. The reality here is the climate change cost is too high for the planet and its future generations to not enforce the use of pipelines instead of trucking.

Action Needed: Maintain Policy COS-7.7 as recommended by the Board of Supervisors: All newly permitted discretionary oil wells are *required* to convey oil and produced water via pipelines instead of trucking.

Flaring – Draft General Plan Policy COS-7.8 requires gases from all new discretionary oil and gas wells to be collected and used, or removed for sale or proper disposal, instead of being flared or vented to the atmosphere. The policy would allow flaring only in cases of emergency or for testing purposes. This is important because venting and flaring release both toxic gases and powerful climate pollutants like methane into the atmosphere. The DEIR, however, undermines this policy by concluding the added costs of treating the gas on site or constructing pipeline connections would make this requirement infeasible because it may lead to a loss of petroleum resources. Flaring, then, would be allowed if conveyance by pipeline is deemed infeasible. This creates another loophole that allows oil producers to simply claim that the cost is too high. Without more stringent policies, flaring in Ventura County will continue. We are either part of the solution or we are part of the problem – let's be part of the solution.

Action Needed: Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are *required* to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

Climate Action Plan – The draft General Plan and the DEIR conclude that the county's greenhouse gas emissions would have significant impacts. However, the Climate Action Plan proposed as part of the General Plan is inadequate and will not reduce emissions in a meaningful way. Most of the proposed Climate Action Plan policies are vague and aspirational, using words like “encourage” and “support” rather than “require” measurable reductions in climate change causing pollution.

Climate Action Plan policies must result in measurable, enforceable reductions sufficient to meet California's climate goals. This is important because the General Plan and related Climate Action Plan can be used to streamline approval of future development projects. If we do not create loophole-proof General Plan and CAP policies, then the adverse environmental consequences of future projects — including discretionary oil and gas development — may not be properly assessed because applicants can simply claim that their projects are consistent with the Climate Action Plan. In other words, if the Climate Action Plan consists mostly of vague, voluntary, or otherwise unenforceable policies, then future projects could easily claim CAP compliance to evade proper environmental review.

Action Needed: Revise the Climate Action Plan and corresponding policies in the General Plan to achieve measurable, enforceable reductions in greenhouse gas emissions.

Greenhouse Gas “Super-Emitters” – A recent NASA study documents that several Ventura County facilities, including oil and gas operations, are “super-emitters” of powerful climate pollutants. Stationary source emissions, including those from oil and gas operations, make up approximately 26 percent of all emissions in California. The General Plan must include strong policies to detect and curb emissions from these “super-emitters.”

Action Needed: The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

Further, the General Plan Update DEIR must include a strong defense of the five-pound air emissions limit for the Ojai Valley. It is widely known that air pollutants do not respect arbitrary human boundary lines. It is locally known that, because of the predominant onshore air flow patterns, air pollutants from Ventura, Casitas Springs, and Oakview often end up trapped by the surrounding mountains in the Ojai Valley air basin. This creates unhealthful conditions in this air basin for humans and other living things.

Action Needed: All projects subject to CEQA review must include an evaluation of the totality of air emissions in order to understand and mitigate the impacts to local air quality.

A few concluding comments on the “Climate Change and Greenhouse Gas Emissions Reduction” section of the General Plan Update. We all understand that climate change is already causing severe adverse impacts both locally and around the world. We all understand that this General Plan Update will guide our county for the next 20 years. Given this, it is absolutely critical that our Climate Action Plan can quantify, measure, and definitively determine whether a project's incremental contribution to a cumulative effect is or is not cumulatively significant. The CAP and General Plan Policies must be strong and enforceable and the County must establish a mechanism to monitor the plan's progress toward achieving reduced emission levels as well as require amendment if the plan is not achieving specified levels.

VCHP would additionally like to offer these few additional public comments:

Conservation and Open Space Element -- under COS-1.10 the Discretionary Development Proposed Near Wetlands it states:

“The County shall require discretionary development that is proposed to be located within 300 feet of a wetland to be evaluated by a County-approved biologist for potential impacts on the wetland and its associated habitats. Discretionary development that would have a significant impact on the wetland habitat shall be prohibited unless mitigation measures are adopted that would reduce the impact to a less than significant level; or for lands designated “Urban” or “Existing Community”, a statement of overriding considerations is adopted by the decision-making body. (RDR) [Source: Existing GPP Policy 1.5.2.3 modified]”

Below this COS-1.10 is this boxed note:

“The County may consider revising the above policy to allow the decision-making body to adopt a CEQA Statement of Overriding Consideration for significant environmental impacts for all areas of the unincorporated County, thereby providing the opportunity to balance a project’s impacts against its potential economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits.”

Policy COS-1.10 should not be revised to soften its intent. Allowing “the decision-making body to adopt a CEQA Statement of Overriding Consideration for significant environmental impacts” could send the wrong message about the County's commitment to environmental resource protection.

6.10 Implementation Policies – In section B “*Update Initial Study Assessment Guidelines*” it states:

“The County shall update the Initial Study Assessment Guidelines to identify a range of mitigation measures for protected biological resources. This will include updating Section 4, Biological Resources, to include the following California Environmental Quality Act (CEQA) policy language regarding compensatory mitigation: “When there is no other feasible alternative to avoiding an impact to a wetland habitat, the County shall require the discretionary development to provide restoration and/or replacement habitat as compensatory mitigation such that no overall net loss of wetland habitat results from the development. The restoration and/or

replacement habitat shall be "in kind" (i.e. same type and acreage) and provide wetland habitat of comparable biological value. On-site restoration and/or replacement shall be preferred wherever possible. A habitat restoration and/or replacement plan to describe and implement such compensatory mitigation shall be developed in consultation with all agencies that have jurisdiction over the resource.” [Source: Existing GPP Policy 1.5.2.4, modified]”

VCHP strongly supports this kind of update to the Initial Study Assessment Guidelines.

In section F “*Evaluate Increase to Standard Setback from Wetland*” it states:

“The County shall evaluate whether a standards 200-foot setback from wetlands should apply to development in order to improve water quality, reduce the impacts of flooding and provide adequate protection for sensitive biological resources [Source: New Program]”

VCHP strongly supports increasing the standards setback from wetlands for development to improve water quality, reduce impacts of flooding and provide adequate protection for sensitive biological resources.

Thank you for your time and attention to these public comments. Additionally, thank you for all of your and County Staff's hard work in getting the General Plan Update to this point.

Sincerely,

Ventura Citizens for Hillside Preservation

Diane Underhill, President
Kathy Bremer, Vice Presidents
Will Thompson, Treasurer
Leslie Purcell, Secretary
Carol Lindberg, Board Member
Norene Charnofsky, Board Member
Jim Hines, Board Member

VCHP is a 501(c)(4) nonprofit organization with the following mission statement: “To preserve Ventura's hillsides, open space, river watersheds, and quality of life by actively participating in and influencing the public planning process as well as supporting like-minded public officials, political candidates and ballot measures.”

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 7:55 AM
To: Simmons, Carrie
Subject: FW: Climate change has environmental impacts! Let's create a more resilient plan.

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Keelan Dann <info@email.actionnetwork.org>
Sent: Wednesday, February 26, 2020 5:44 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts! Let's create a more resilient plan.

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Thank you for your care in ushering our community into a more resilient future. It must take great effort some days in this time of such rapid change where in your profession maybe you are facing issues your predecessors never had to consider. As a young adult in this world, I can relate. My peers and I are used to frequent climate anxiety dreams, pollution in our lungs, and digitally witnessing stories of climate disasters around the world, yet daily we have to ask

each other to show up, adjust our plans, and figure out how to be a resilient community. It takes attention but we see the capacity that you and we have to create a more thriving plan together.

As an ecologist and environmental educator I have seen first hand how the climate crisis is effecting our ecosystems, homes, neighbors, and youths. We are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

Additionally, there are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Keelan Dann

keelan_dann@yahoo.com

Ventura, California 93003

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 7:56 AM
To: Simmons, Carrie
Subject: FW: Comments on Ventura County General Plan DEIR
Attachments: Letter to General Plan.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Stan Chambers <stan@aquamagazine.com>
Sent: Wednesday, February 26, 2020 7:10 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on Ventura County General Plan DEIR

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Please find attached my agreement to the following letter on behalf of the McLoughlin Ranch.

--

Stan Chambers
Account Executive

AQUA | the business magazine for spa & pool professionals

22 E. Mifflin St. Suite 910 | Madison, WI 53703 | aquamagazine.com
P 949.253.8725 | F 608.249.1153

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it's not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes

to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

Laura McAvoy

I support this letter-

Stanley Holroyd Chambers III

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 7:56 AM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: JOSEPH LAMPARA <jlamp56@msn.com>
Sent: Wednesday, February 26, 2020 8:02 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

Dear Ms. Curtis:

CEQA guidelines require the Lead Agency to require FEASIBLE mitigation measures to lessen or avoid significant effects on the environment. The agency does not have unlimited authority to impose mitigation measures.

Per CEQA guidelines: Mitigation measures must be feasible. Feasibility analysis must include evidence and data that the additional costs or lost profitability are not sufficiently severe as to render "it impractical to proceed with the project." The Courts have determined that if the costs of the mitigation or alternative are so great that a reasonably prudent person would not proceed with the project, this mitigation measure is deemed unfeasible.

Example:

Proposed Mitigation Measure AG-2 (Implementation Program AG-X): The County has failed to disclose and analyze the following:

- 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
- 2) The cost per acre to purchase each category of farmland;
- 3) The anticipated cost of establishing a conservation easement for each category of farmland;
- 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
- 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
- 6) any information that could constitute a "plan" for management of farmland in conservation easements;
- 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
- 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel;
- 9) An analysis of potential conflicts with existing ordinances and statutes (such as the Non-Coastal Zoning Ordinance) to ensure that the smallest possible required mitigation acreage required does not conflict with the County's minimum lot sizes.

Respectfully,

Joseph Lampara

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 7:56 AM
To: Simmons, Carrie
Subject: FW: BILD Comment Letter - Ventura County General Plan
Attachments: BILD Comment Letter - Ventura General Plan.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: awood@bildfoundation.org <awood@bildfoundation.org>
Sent: Wednesday, February 26, 2020 8:05 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: BILD Comment Letter - Ventura County General Plan

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Hi Susan,

Please see the attached document for the official comments from the Building Industry Legal Defense Foundation regarding the Ventura County General Plan Update. I would like this letter to be included as part of the record.

Thank you.

-Adam

Adam S. Wood
Building Industry Legal Defense Foundation
24 Executive Park, Suite 100
Irvine, CA 92614
Office: 949.553.9500
Direct: 949.777.3860

www.BILDFoundation.org

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February 27, 2020

Chairwoman Kelly Long
Ventura County Board of Supervisors
County Government Hall of Administration
800 S. Victoria Avenue
Ventura, CA 93009

Re: Ventura County General Plan Update

Dear Chairwoman Long,

The Building Industry Legal Defense Foundation (BILD) is a non-profit mutual benefit corporation and a wholly-controlled affiliate of the Building Industry Association of Southern California. BILD provides legal support and litigation services to increase the production of housing to meet the state's urgent need for more housing, and equally urgent need for housing that is actually affordable to hard working Californians.

To that end, we want to bring to your attention the following comments and concerns BILD has identified with the proposed Ventura County General Plan Update:

I. VENTURA COUNTY GENERAL PLAN UPDATE COMMENTS

A. Biology

1. Policy COS-1.1 and Draft EIR Mitigation Measure BIO-1 require projects to avoid, minimize and then mitigate impacts to sensitive biological resources, in that order, "when feasible". This policy fails to provide any meaningful standard for determining when it is "feasible" to avoid a resource, and thus gives County staff unbounded discretion to require modifications to projects. These decisions by County staff may conflict with decisions by state and federal natural resource regulators under existing programs that already impose similar standards. For instance, the "404(b)(1) Guidelines" for implementation of Clean Water Act Section 404, at 40 CFR Part 230, require avoidance and minimization of impacts to waters of the United States (including wetland waters) to the extent practicable, and require mitigation for unavoidable impacts. See 40 CFR 230.91(c). "Practicable" means "available and capable of being done after

taking into consideration cost, existing technology, and logistics in light of overall project purposes.” 40 CFR 230.3(q). The Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) recently adopted by the State Water Resources Control Board include an analogous requirement and an identical definition of “practicable.”

2. To avoid unnecessary duplication and potential conflict with decisions by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Boards (RWQCB) under these programs, and with decisions of other agencies under similar programs, Policy COS-1.1 should provide that the County will defer to permitting decisions by state and federal agencies exercising jurisdiction over sensitive resources, including the USACE, RWQCB, U.S. Fish and Wildlife Service (USFWS), and California Department of Fish and Wildlife (CDFW), to determine what avoidance, minimization and mitigation of impacts to sensitive biological resources are feasible.
3. Policy COS-1.6 requires discretionary development on hillsides and slopes greater than 20 percent to minimize grading and vegetation removal in order to avoid significant impacts to sensitive biological resources to the extent feasible. Again, the policy fails to provide any guidance regarding the extent to which avoidance will be considered “feasible.” At minimum, the County should adopt a definition of feasibility for purposes of biological resource protection that incorporates the concepts of technical and logistical feasibility, cost, and consistency with the project purposes defined by the project proponent, analogous to the concept of “practicability” used in the 404(b)(1) Guidelines and state Procedures. The definition should state that avoidance is not feasible if it would require engineering or construction techniques that are not commonly used in the industry; if it would impose unreasonable costs on the project; if it would deny the property owner a reasonable opportunity to develop the property consistent with otherwise applicable zoning and land use designations; or if it would create or substantially increase the severity of other significant environmental impacts.
4. Policy COS-1.7 requires the use of “natural or nature-based” flood control infrastructure, such as wetland restoration, “when feasible”. The policy should clarify that, for flood control infrastructure located within areas subject to the jurisdiction of the USACE, RWQCB or CDFW, the County will defer to decisions of those agencies permitting the installation or modification of flood control infrastructure. Otherwise, the County will apply the definition of “feasible” recommended in the comment on COS-1.6, above.
5. Policy COS-1.8 requires new or modified road crossings of aquatic features and riparian habitats to use bridge columns located outside riparian habitat, “when feasible.” Neither the General Plan nor the Draft

EIR provides evidence that bridge columns located in riparian habitat necessarily have adverse effects on sensitive biological resources. In some cases, the lateral extent of riparian habitat may be many hundreds of feet wide, yet much of this area may lack substantial vegetation or other habitat values. Further, construction techniques exist that are capable of minimizing the temporary and permanent impacts of bridge column installation, such as vertical pile installation.

6. The policy should clarify that, for bridge columns located within areas subject to the jurisdiction of the USACE, RWQCB or CDFW, the County will defer to decisions of those agencies permitting the installation, maintenance, repair or replacement of bridge columns or road crossings. Further, the policy should state that the requirement to locate bridge columns outside riparian habitat when feasible applies only where the proposed columns would significantly adversely affect riparian habitat values. Finally, the policy should clarify that removal of existing bridge columns located within riparian habitat is not required when modifying an existing road crossing, and should incorporate the definition of feasibility recommended above.
7. Policy COS-1.9 requires the County to consult with “resource management agencies” including the California Native Plant Society (CNPS) and the National Audubon Society (NAS) during review of discretionary development applications. CNPS and NAS are not resource management agencies and have no legal authority to “consult” on County planning and land use decisions. These organizations should be allowed to comment on proposed development projects like other members of the public.
8. Policy COS-1.11 prohibits development within 100 feet of a wetland, with certain exceptions, and prohibits development that would have a significant impact on a wetland habitat unless mitigation measures are approved that would reduce the impact to a less than significant level. The policy should clarify that the prohibition does not apply to discharges of dredged or fill material to wetlands that are approved by the USACE and/or RWQCB, the agencies with legal jurisdiction over such activities; and that mitigation approved by those agencies for impacts to wetlands will be deemed to reduce permitted impacts to a less than significant level.
9. Draft EIR Mitigation Measure BIO-1 (Implementation Program COS-X) requires avoidance of sensitive habitats, wetlands, other waters, wildlife corridors, etc., “if feasible,” through “no-disturbance buffers” around such sites. The measure should clarify that feasibility of avoidance is determined as described in the recommendations above, including deferring to permitting decisions of the USACE, RWQCB, CDFW and USFWS, and adoption of a definition of feasibility. Further, the measure should more clearly define what is meant by “wildlife corridors,” focusing

on areas demonstrated to be used for wildlife passage, and should clarify that the measure does not require avoidance of all areas designated as part of a wildlife movement corridor overlay zone under the County's wildlife movement corridor ordinance, which covers tens of thousands of acres within the County.

10. Implementation Program B of the General Plan Update (p. 6-18) requires an update to the County's Initial Study Assessment Guidelines to require that wetland mitigation be "in kind" (i.e., same type and acreage) and to provide that "[o]n-site restoration and/or replacement shall be preferred wherever possible." In recognition of the fact that compensatory mitigation sites for certain types of wetland habitats may be extremely difficult or impossible to find, this language should provide flexibility to provide mitigation using wetland types that differ from the specific type impacted, provided the mitigation site provides wetland habitat values equal or greater to the impacted wetland. In addition, the preference for on-site mitigation stated in this text is inconsistent with Mitigation Measure BIO-1, which allows mitigation for wetland impacts "within or outside of the project site," or through purchase of credits from a mitigation bank or an in lieu fee program, and conflicts with the USACE's compensatory mitigation regulations, which establish a preference for mitigation banks and in lieu fee programs over permittee-responsible mitigation. The preference for on-site mitigation should be deleted.
11. Implementation Program F of the General Plan Update (p. 6-20) calls for the County to consider increasing the standard wetland setback to 200 feet. This proposal is inconsistent with Policy COS-1.11 and should be deleted.

B. Mineral Resources

1. Policy COS -7.3 increases setbacks to sensitive uses from discretionary oil wells from 600 to 1500 feet for residences and 2,500 feet for schools. The Mineral Resources section discusses this policy's impact on mineral resource production and concludes that impacts from the new policy are significant and unavoidable as it would hamper and preclude some oil field expansion and access to petroleum resources. This conclusion is after imposition of a mitigation measure that expands the types of uses required to have the minimum setbacks but reduces the school setback to 1,500 feet. Minimum setbacks should not be categorical but should allow for exemptions for smaller setbacks if a health risk analysis demonstrates that impacts are less than significant.
2. Policy COS -7.7 would require the use of pipelines to convey oil and produced water offsite as opposed to trucks, whereas the current zoning code requires use of pipelines except when impractical or infeasible. The DEIR concludes that it may be technologically or economically infeasible for more remote operations (more than two miles from a major oil

transmission line) to meet this requirement. The DEIR notes that “most” oil wells in the County are clustered within two miles of “major oil transmission pipelines.” While the DEIR concludes that loss of oil production would likely be primarily at a small scale and associated with oil operators outside of a two-mile radius of a major oil or gas transmission line, smaller producers within two miles may have difficulty meeting the requirement with more efficiency gained from using trucks. The DEIR concludes that the impact of the policy would be potentially significant but reduced to less than significant by allowing an oil operator to use truck if it can demonstrate that the conveying oil and produced water is via pipeline is infeasible. This mitigation fails to provide a meaningful standard with respect to demonstrating infeasibility.

3. COS Implementation Program M requires the County to evaluate the feasibility of establishing a local tax on new oil and gas operations. No discussion is provided as to why such a tax would be desirable, what it could be used for or what alternatives to a tax have been considered. COS Implementation Program U requires amendments to the county’s zoning ordinances to require “solar canopies” in parking lots of non-residential projects with floor area greater than 50,000 square feet. This Program does not appear to consider whether solar canopies in parking lots are the most efficient way to impose a solar requirement on new development. It directs a change in law without any consideration of the potential impacts of doing so.

C. Agriculture

1. There are a number of agricultural policies that require the County to encourage or minimize specified impacts “when feasible” but provide no meaningful standards to determine feasibility. For example, Policy AG-5.2 requires the County to support the transition to electric, renewable or lower emission agricultural equipment “when feasible”. It is unclear how feasibility will be determined such as whether market availability of equipment or some other standard is proposed. Similarly, proposed new policy AG-5.5 encourages using farmland to sequester carbon through various methods “such as reduced tilling, covercropping, composting, biochar, and other activities that both reduce greenhouse gas (GHG) emissions and increase carbon sequestration and storage, when feasible.” Here the policy provides examples but again, provides no meaningful standard to determine feasibility and provides decision makers with unbridled discretion to impose conditions on agricultural operations.
2. The Agriculture Element says “Goals, policies, and implementation programs related to farmworker and farm family housing are included in Chapter 3, Housing Element.” (2040 General Plan Update, pg. 8-2.) However, the Housing Element sections says it will be updated following the receipt of the County’s RHNA numbers and only provides

information regarding the process that will be followed to conduct this subsequent update. The County should at least make a reasoned effort to explain how farmworker housing fits into the overall County housing framework and how it relates to the County's RHNA numbers.

3. Draft EIR Mitigation Measure AG-1, including New Policy AG-X and Implementation Program AG-X, require discretionary development to avoid loss of Important Farmland to the extent feasible, and require permanent preservation of "offsite" farmland through conservation easements to mitigate direct or indirect loss of Important Farmland. The measure should clarify that "offsite" means any qualifying farmland not located within the lost farmland, including farmland that is contiguous with, adjacent to, or part of the same legal parcel as the lost farmland. In addition, the measure should provide that the requirement does not apply to discretionary projects involving agriculture-dependent or agriculture-related uses sited on Important Farmland, such as farm stands, wineries, breweries, and agriculture-tourism facilities, including parking for such uses.

D. Land Use

1. The 2040 General Plan Update generally maintains the same use restrictions on agricultural and open space land. It also emphasizes a tightening when it comes to making changes to develop uses on such lands. For example, under the discussion in the 2040 General Plan Update of agricultural land policies, it states a County policy direction to "Establish policies and regulations which restrict agricultural land to farming and related uses rather than other development purposes." (2040 General Plan Update, pg. 2-28 and 2-32.) However, there may be desirable complimentary uses to agriculture that could be prohibited by this policy. For example, it is unclear whether a wine tasting room in connection with a vineyard would be considered a farming related use. Care should be taken to assess the overall implications of restrictive land use policies on potentially desired land uses in agricultural areas.
2. Policy LU-6.1 requires non-agricultural land uses adjacent to agricultural uses to "incorporate adequate buffers (e.g. fences, setbacks) to limit conflicts with adjoining agricultural operations." This policy provides an open-ended standard that does not really provide any meaningful guidance to decision makers. For example, the County would have unbridled discretion to determine setbacks leaving development proponents with no meaningful way to determine project parameters.
3. Policy "LU-8.5 Farmworker Housing" is a new policy supporting development of farmworker housing: "The County shall support the development of safe and quality farmworker housing that facilitates a reliable labor force and promotes efficient agricultural operations.

Housing units shall include a variety of housing types, including group quarters and larger dwelling units that can accommodate a family. (RDR) [Source: New Policy].” Existing policy concerning uses appropriate for the agriculture land use designation include uses “accessory to agriculture” but that policy does not specifically call out farmworker housing. It is unclear whether farmworker housing would be allowed on agricultural land. Future development of farmworker housing on agricultural land should be made explicit.

4. Policy LU-11.3 requires new commercial and industrial developments to be designed, among other things, to “reduce vehicle miles traveled (VMT)”. (General Plan DEIR, pg. 4.8-11.) However, it is unclear how project design would affect VMT since VMT may be more a function of project location than design. The County should clarify the types of design measures it expects projects to potentially implement to reduce VMT. If the County’s intent is to simply discourage commercial and industrial development in certain parts of the County and to promote it in others, it should just say so.
5. Policy COS-4.3 that is referenced in Land Use Element requires all structures and sites designated, or being considered for designation as County Historical landmarks to be preserved as a condition of discretionary development unless the structure is unsafe or deteriorated beyond repair. This absolute mandate that provides a “one-size fits all” approach to potentially historic structures and sites does not recognize that there may be unique circumstances in which such an approach is unwarranted. Under this proposed policy, preservation of structures or sites is mandated if they are “being considered for designation” whether they eventually become designated or not. Such a policy is so open ended it is impossible to assess its potential impacts. CEQA recognizes that an historical resource listed in a local register is presumed to be historically or culturally significant unless a preponderance of evidence demonstrates it is not historically or culturally significant. (CEQA Guidelines, Section 15064.5(a)(2).) By providing an absolute preservation standard, Policy COS-4.3 conflicts with the aforementioned CEQA Guidelines section that allows evidence to be presented and evaluated on the question of whether a resource is historic. There may be circumstances in which removal or alteration of an historical or cultural resource may be desirable or warranted. For example, CEQA also allows for a statement of overriding considerations even if an impact is determined to be significant after all feasible mitigation is applied.

E. Population and Housing

1. This section discusses RHNA and the County’s inventory of building sites that it claims are sufficient to meet future housings needs, including affordable housing needs. It does not disclose that the County is on the

state list of agencies that have not made sufficient progress toward their Above Moderate income RHNA and/or have not submitted the latest Housing Element Annual Progress Report (2018), and are therefore subject to the streamlined ministerial approval process (SB 35 (Chapter 366, Statutes of 2017) streamlining) for proposed developments with at least 10% affordability.

F. Circulation, Transportation and Mobility Element

1. Policies in the Circulation, Transportation and Mobility Element appear to require both Vehicle Miles Traveled (“VMT”) and Level of Service (“LOS”) analysis for discretionary projects. Policy CTM-1.1 requires VMT analysis and Policy CTM-1.4 requires LOS analysis. Policy CTM-1.4 states that the LOS analysis is to evaluate the effects of a project on the roadway system. However, it is unclear why both VMT and LOS would be required in light of SB 743. CEQA Guidelines Section 15064.3, which implements SB 743, provides that vehicle miles traveled is the most appropriate measure of transportation impacts and that “a project’s effect on automobile delay shall not constitute a significant impact.” Pursuant to CEQA Guidelines Section 15064.3, this section, is effective statewide beginning July 1, 2020, with the exception that a lead agency may elect to be governed by the CEQA Guidelines sooner. In light of the direct guidance that has determined that automobile delay will no longer be considered a significant impact, it is unclear why the County would still require LOS evaluation or have any project standards tied to LOS analysis.

G. GHGs and Climate Change

1. Policy COS-10-4 Greenhouse Gas Reductions in Existing and New Development provides that the County “shall reduce GHG emissions in both existing and new development through a combination of measures included in the GHG Strategy”. These strategies include “new and modified regulations.” Without identifying what these potential new and modified regulations would entail, it is unclear how they would affect existing business operations, future development and/or the physical environment. While this policy may assume such new regulations would reduce greenhouse gases, issues such as whether the regulations would have secondary impacts leading to significant environmental effects is not known.
2. Additionally, the DEIR would eliminate Implementation Program COS-EE, which provides for streamlined GHG analysis for projects consistent with the General Plan; this seems undesirable since the purpose of program EIRs is in part to streamline future environmental review.

BILD respectfully requests clarification or remedy for all points raised herein prior to the adoption of the Ventura County General Plan Update.

Thank you for your thoughtful consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'ASW', is positioned above the typed name.

Adam S. Wood
Administrator
Building Industry Legal Defense Foundation

Gloria Valladolid
1129 Maricopa Hwy B-251
Ojai Ca 93023

REC'D FEB 26 2020

February 22, 2020

Ventura County Resource Management
Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

**Re: Preliminary Draft General Plan Update
(Planning Division Case Number PL17-0141)**

Here are my comments and recommendations regarding the
Preliminary Draft General Plan Update ("Preliminary Draft").

I agree with CFROG's comments. Therefore, include me as a strong
citizen supporter of their comment letter. Ditto to their
recommendations to the EIR.

Sincerely



Gloria Valladolid

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, March 2, 2020 8:48 AM
To: Simmons, Carrie
Subject: FW: Amendment to Ventura County General Plan Environmental Impact Report
Attachments: 2020_02_26_22_37_09.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Zaragoza, John <John.Zaragoza@ventura.org>
Sent: Friday, February 28, 2020 4:13 PM
To: Prillhart, Kim <Kim.Prillhart@ventura.org>; Curtis, Susan <Susan.Curtis@ventura.org>; Ward, Dave <Dave.Ward@ventura.org>
Subject: FW: Amendment to Ventura County General Plan Environmental Impact Report

FYI

From: Tina Rasnow <tina@rasnowpeak.com>
Sent: Wednesday, February 26, 2020 10:49 PM
To: ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>; Bennett, Steve <Steve.Bennett@ventura.org>; Parks, Linda <Linda.Parks@ventura.org>; Zaragoza, John <John.Zaragoza@ventura.org>; Long, Kelly <kelly.long@ventura.org>; Supervisor Huber <Supervisor.Huber@ventura.org>
Cc: brian rasnow <brian@rasnowpeak.com>
Subject: Amendment to Ventura County General Plan Environmental Impact Report

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Clerk of the Board and Honorable Members of the Board of Supervisors,

Attached please find the letter from our family regarding the proposed amendment to the Ventura County General Plan and EIR relative thereto. Our family recently completed the donation of almost half of our ranch in the Santa Monica Mountains to the Conejo Open Space Conservation Agency, so we hope that our actions provide credibility to our words. Respectfully,

Tina Rasnow



Tina Rasnow
1000 So. Ventu Park Rd.
Newbury Park, CA 91320
cell: 805-236-0266

tina@rasnowpeak.com
www.rasnowpeak.com



Tina Rasnow (805) 236-0266

February 26, 2020

Ventura County Board of Supervisors
Hall of Administration
800 South Victoria Ave.
Ventura, CA 93009

Re: General Plan Amendment Environmental Impact Report

Dear Honorable Members of the Board of Supervisors:

We are heartened to see more comprehensive environmental protection measures included in the General Plan objectives, as outlined in the Environmental Impact Report, but disappointed that so much focus is still placed on aesthetics as opposed to true health and safety concerns. We also feel that the General Plan Amendment falls short of tackling the full extent of the climate crisis and its likely impact on Ventura County. The new General Plan should provide a blueprint to guide us into the future, but in elevating aesthetics to equal standing with true health and safety issues, it fails as a roadmap to navigate the growing environmental and social challenges of the future.

1. For example, when it comes to telecommunications towers, the emphasis on disguising or hiding them, including protecting the view of the ridgelines, does a great disservice to community health, because cell towers are safest when located away from people. Ridgelines that provide excellent coverage, but are not located near schools, businesses or homes are an ideal location for telecommunications towers, far safer than flagpoles, church steeples, and strip mall facades. This is particularly true as the cell phone carriers migrate to 5G which emits far more EMF and RF than the earlier versions of transmission.

2. While maintaining open space is important, the SOAR initiative allows those with existing homes to veto new development, particularly low income and affordable housing, which is desperately needed to provide shelter for our service worker sector. If lower wage earners cannot afford to live near where they work, the commute required increases congestion and air pollution, deteriorating the quality of life for the whole community.

3. Given that the General Plan is projected to take us to 2040, and the existential threat the climate crisis poses, we think far more needs to be done to cease fossil fuel extraction and transition to 100% renewables in the short term. We need to have a comprehensive public transit system based on renewable energy, methods for harvesting rain water so

less storm water runoff goes to the sea, and planning on what portions of our coast line we may have to abandon to sea level rise.

4. The book, *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*, edited by Paul Hawken (Penguin Books, 2017), compiles the results of research from hundreds of the world's top scientists and climate experts, and identifies specific actions that governments and local communities can take to reverse global warming. Our General Plan should incorporate those drawdown solutions that can be undertaken on a local level, many of which are surprisingly simple. For example, reduced food waste and encouraging people to adopt a more plant-rich diet can have a profound effect on reducing green house gasses. So can good family planning clinics and incentives to reduce procreation rates. A most effective and inexpensive drawdown action would be to implement regenerative agricultural methods here in Ventura County. By transitioning away from chemical fertilizer and pesticide use, no-till land management, and building soil with organic material, including biochar, we can sequester carbon in the soil while building its quality and productivity, eliminating contamination of ground and surface water, and improving air quality.

5. We do not have to invent solutions to address the current and growing environmental and social challenges. Other forward thinking regions are tackling these challenges and can provide us with a template that can be tailored to our own local conditions. For example, on Salt Spring Island in British Columbia, the community is faced with a housing crisis similar to our own in Ventura County. Strict development restrictions and limited residential units have priced housing beyond the reach of many residents. Meror Krayenhoff, a global consultant on rammed earth building methods and featured on *The Nature of Things* with David Suzuki, suggested that a compliance driven, as opposed to vision driven, policy paradigm can result in anarchic, subversive response when the populace thumbs their noses at regulations that don't represent the will and needs of the population. He proposes a number of innovative solutions, including encouraging the use of local, renewable materials in building. Ventura County, with access to rock, sand, straw bales and other renewables, can become a beacon for permitted home building solutions for the rest of California, and the nation. Green projects could get reduced permitting fees and priority in the permit queue, with a single point advisor. For example, composting toilets should not only be permitted, but encouraged, as it is wasteful in the extreme to use precious potable water to flush away human waste.

6. We suggest Ventura County consider concepts implemented elsewhere, such as Seattle granting a 25-30% increase in allowable floor area and increased height limits for Living Building Challenge ("LBC") projects (See <https://living-future.org/lbc/>); or New Zealand's SIREWALL community center project, which made approval contingent upon demonstrating reconciliation with Maoris, training opportunities for youth, a high environmental standard that the community (of all ages) supported, that it would elevate the well-being of the community, and encourage responsible tourism. (See https://www.nzherald.co.nz/northern-advocate/news/article.cfm?c_id=1503450&objectid=12076863)

7. Ventura County can embrace LBC requirements that buildings be net positive in terms of water, energy, sewage and liquid waste, and contain no red-listed toxic materials, express beauty in terms of spirit, inspiration, and education, create health and happiness through such things as biophilia, among other inspiring attributes.

8. While the General Plan is intended to cover the length of a generation, it would not be at all unsound to at least contemplate the next seven generations, consistent with indigenous cultural tradition. Measuring progress with such a long term view will require a different framework than juggling one climate or housing emergency after another. Priorities and decision-making can be measured in a rational and holistic manner, with careful thought for the generations yet to come.

9. The General Plan should explicitly reflect the County's Climate Action Plan and its evolution. Achieving net zero CO2 emissions (and sequestration) will require a rapid ending to oil and natural gas extraction (and certainly no expansion, no granting new leases, new pipeline permits, etc. It should encourage green energy generation and storage in both distributed and centralized manners.

10. Wildfires are clearly changing in their severity and nature. The County should lead in research and experimentation with methods of fire protection and damage mitigation, such as (un)controlled small burns, and unconventional methods advocated by <http://californiachaparral.com> – including ember barriers and sprinklers, which are more effective and ecologically sound than enormous denuded hillsides.

11. Our General Plan needs to steer our county toward good land and resource stewardship. To recap, aesthetics play far too important a role in our land use planning, particularly because “beauty is in the eye of the beholder,” and what one person sees as creative genius, another sees as a monstrosity. Land use regulations should be focused on environmental safeguards that protect air, water, and soil while at the same time meeting the food and shelter needs of our communities.

12. As Meror Krayenhoff has stated, “We are in a time when the scale of the emergencies we face need to be addressed with solutions of a corresponding scale. These emergencies also have urgency. . . . [W]ithout governance that can act with pace, boldness, courage and the power to implement, we are wasting our time.” We hope that Ventura County acts with such pace and boldness to adopt a General Plan that guides us in a new direction of carbon drawdown, while promoting innovation in design, building, and conservation for generations to come.

Thank you for your kind consideration.

Sincerely,

Handwritten signature of Tina Rasnow and Dr. Brian Rasnow in cursive script.

Tina Rasnow and Dr. Brian Rasnow on behalf of the
Rasnow Family

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:30 AM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: chris raymond <raymond.chrisj@gmail.com>
Sent: Wednesday, February 26, 2020 3:16 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: chris@rinconstrategies.com; llampara@colabvc.org
Subject: 2040 General Plan Draft EIR Comment

The County did not conduct complete analysis on impacts of creating a new source of glare for motorists.

The General Plan contains policies that require installation of solar panels and the creation of "reflective" roof tops.

Policy PFS-2.2: Sustainable Community Facility Design. The County shall encourage the incorporation of sustainable design features in community facilities to reduce energy demand and environmental impacts, such as reflective roofing, permeable pavement, and incorporation of shade trees.

Implementation Program U: Solar Canopies in Non-Residential Projects. The County shall amend the County's Coastal and Non-Coastal Zoning Ordinances to require parking lots for new non-residential construction projects, with floor area of greater than 50,000 square feet, to include solar canopies.

Yet these policies were not analyzed for impact even though they will both create new sources of glare.

Even with Mitigation Measure AES-1 (requiring that materials that reduce glare be used), how do you have a "reflective" roof and use "reduced glare" materials? By the very definition of "reflective", glare will be produced.

Also, has the County evaluated whether "non-glare" solar panels are technologically or economically feasible?

FEB 28 2020

MAR 3 20 PM 1:15

RMA Planning Division
General Plan Update
800 Victoria Ave, L# 1740
Ventura, CA 93009-1740

23 February 2020

Dear Ms. Susan Curtis;

I am writing to you for the purpose of commenting on the EIR for 2040 which was recently released in the fall of 2019. A County's General Plan is one of the most important documents that a County produces. This document is flawed in so many ways which is due to the reality, EIR's take 12-18 months to complete and this one was finished in 6 weeks!! I have selected just a few issues, however, I want to state this entire EIR has failed to achieve its primary purpose, in sooooo many ways.

BACKGROUND REPORTS (BR)

BR's are the basis of data used for analysis of impacts. The EIR refers throughout to the the BR as the source of data and technical information used in the analysis of impacts.

The EIR states that the BR contains substantive information used to conduct impact analysis. However, the BR actually only contains general, incomplete and often incorrect or generalized information that cannot be applied to the impact analysis. The BR fails to provide adequate technical information to be utilized as the County claims.

The maps provided in the EIR and the Background Report are of such low resolution and detail that they do not provide the reader with the information necessary to evaluate or determine impacts or even to determine which parcels or areas may lack sufficient site exposure for solar installations to be effective or feasible. Much of the data in the BR is outdated.

EXAMPLES:

1. Map 9-7 is of such poor quality and resolution that it is impossible to read the words. A map of such poor resolution and quality does not meet the CEQA standard of providing adequate information so the reader can evaluate the County's analysis of impacts.
2. All the tables in the Ag Chapter contain outdated information- the most recent data cited is from 2015.

County fails to address the true impact on agriculture (lack of processing facilities and operations decreases economic sustainability of local ag.)

In the BR, the County admits that while "Current trend is for locally grown" products, there are very limited opportunities for this in Ventura County due to the lack of processing facilities.

Processing operations are restricted because of County policies and regulations. The EIR did not analyze the impact of lack of processing facilities on agriculture. The County did not propose any mitigation measures to reduce this impact.

PROPOSE MITIGATION MEASURE:

Allow for the construction and operation of agricultural processing facilities. The mitigation measure will reduce the impact of conversion of ag lands to non-ag uses by improving long term economic-sustainability for agriculture.

COUNTY FAILS TO ANALYZE & REDUCE THE IMPACTS OF "ACTUAL" ISSUES.

Actual issues impacting agriculture in Ventura County that contribute to the conversion of ag land:

1. Water
2. Economics (extremely expensive are to do ag)
3. Lack of farmworker supply and housing
4. Increased regulatory burden from increasing compatibility issues from urban/ag interface

County analyzed **NONE** of these issues and proposed no mitigation to address any of these issues.

Thank you Susan for your time.


Bruce Holley
Local Businessman
Oxnard, CA

FEB 28 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

NAR 3/20 PM 1:15

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value

and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo.

These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely,

A handwritten signature in blue ink, appearing to be "M. J. [unclear]", written in a cursive style.

FEB 28 2020

NAR 3:20 PM 1:15

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

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Sincerely,



FEB 28 2020

MAR 3 '20 PM 1:16

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

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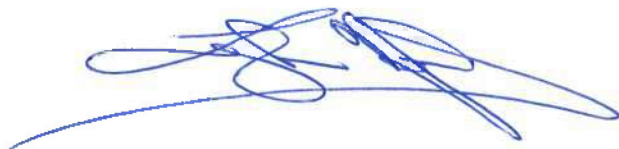
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Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely,

A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke at the bottom.

FEB 28 2020

MAR 3 '20 PM 1:16

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

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Sincerely,



FEB 28 2020

RMA Planning Division
General Plan Update
800 Victoria Ave, L# 1740
Ventura, CA 93009-1740

25 February 2020

Dear Ms. Susan Curtis;

The 2040 General Plan Environmental Impact Report (EIR) has been released for public comment. The County rushed to complete this analysis! Usually EIR's take 12-18 months or more. The County finished theirs in 6 weeks. The quality of the EIR reflects that timeline.

MAR 3 2020 PM 1:17

There are so many extremely flawed and deficient analyses throughout the EIR, however I am a small business owner and have other responsibilities. time only permits me just a few comments.

- A) The county failed to analyze the impact of mitigation measure NOI-1 on wildfire risks. Milt Measure NOI-1 (policy HAZ-X) demands that noise reduction measures must be installed to reduce sound near sensitive receptors near roads.

This mitigation measures states "noise control measures may include increased vegetation..."

HOWEVER, the County did not evaluate the feasibility of this mitigation measure. Vegetative noise control barriers have very precise technical standards for height, weight, AND SOLID BRUSH DENSITY FROM GROUND TO TOP. The required brush density for vegetation to actually reduce noise often conflicts with Fire Code requirements for brush reduction below certain heights.

If the County wishes to encourage vegetation noise buffers, then this mitigation measure needs to be evaluated for impacts to wildfire risk.

- B) County failed to evaluate the impact of policies that restrict energy choice on health and safety.

Policy COS-8.11:

Improve Energy Conservation Awareness. The County shall encourage community members to conserve energy and reduce greenhouse gas emissions and increase awareness about energy efficiency and climate change and adaptation.

Further, to conduct targeted outreach to homeowners and contractors to encourage installation of electric appliances upon routine replacement of natural gas appliances and heaters and provide information regarding financial incentives.

The Background Report fails to include pertinent data regarding Ventura County's existing energy source and supply condition, which include "public safety shutdown" of large sections of the electrical grid.

County residents have suffered through extended power outages that prevent the use of electrical appliances (including hot water heaters, HVAC systems, and cooking appliances).

The County has failed miserably to consider existing conditions and failed to analyze the impact of this policy on public health and safety.

C) The County did not conduct the CEQA required analysis for impacts.

CEQA is very clear that the intent of the impact analysis required here is to evaluate the potential impact of the General Plan on future access to the petroleum reserves.

Yet the County DID NOT DO THIS. Instead the County provides a long discussion of the potential health and safety impacts that may occur near oil and gas production. While this "optional, not required" analysis is admirable, the County has failed to comply with CEQA requirements for this analysis. The County MUST redo this analysis, this time following the CEQA intent, and the EIR must be recirculated.

Legalese:

The County MUST conduct an analysis that meets CEQA standard by evaluating the impact of future development under the General Plan on the ability to access reserves. The analysis outlined in the EIR has no bearing as the County failed to meet the CEQA standard.

Thank you,


Patsy Turner, Small Business Owner
Oxnard, CA

FEB 28 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

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MAR 3 '20 PM 1:17

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

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General Plan Update

1800 Victoria Avenue L#1740

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A handwritten signature in cursive script that reads "Josh Wells". The signature is written in dark ink on a white background.

FEB 28 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

MAR 3 '20 PM 1:18

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Sincerely,

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Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:30 AM
To: Simmons, Carrie
Subject: FW: County GP Comment Letter - McLoughlin Family Committee (002 A)
Attachments: County GP Comment Letter - McLoughlin Family Committee (002 A).docx

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Mary Victoria Taylor <MaryVictoria.Taylor@jserra.org>
Sent: Wednesday, February 26, 2020 6:04 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: County GP Comment Letter - McLoughlin Family Committee (002 A)

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Please open this letter and print as it pertains to the McLoughlin Family Committee.

Thank you very much.

Sincerely,

Mary Victoria Taylor

949.429.9802

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I am a part of the McLoughlin Family. We have been farming in Ventura County for approximately 150 years. We currently own 300 acres of agricultural property off of Olivas Park Road in the County of Ventura near the Ventura Marina on Harbor Rd, in proximity to the City of Ventura.

The McLoughlin family has farmed this land and other parcels for generations going back to 1863. It remains our desire to continue this legacy, however, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. That, however, is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. The DEIR, however, never analyzes the loss of farmland resulting from these changes in infrastructure – it's not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. No further details beyond this conclusory statement are provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. It's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

Sincerely,

Mary Victoria Taylor

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 8:31 AM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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From: M Vanoni <mvanoni@sbcglobal.net>
Sent: Wednesday, February 26, 2020 6:40 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

Ventura County - RMA Planning Division

The DEIR is based on incomplete analysis of policies, contains several false and ill-advised policies, and fails to understand key challenges related to Ventura County.

Background Report is inaccurate, vague, and contains outdated information that is so poor it cannot be used for analysis.

Fig 11-11 is of such poor resolution and detail that it is impossible to determine where urban-wildfire interface areas may exist for any parcel. Providing a map of such poor resolution that the entire county is "colored in" does not provide useful data that can be used for any kind of impact analysis.

Map 9-7 in the Ag Chapter is blurry and the text is impossible to read. Maps like this violate the intent of CEQA as the reader is not given clear and applicable data with which to evaluate the County's impact analysis.

Please do what is best for Ventura County and halt this flawed document which does not achieve (and negatively affects) its primary purpose, which is to be a tool of disclosure of all impacts caused by the 2040 General Plan.

Mary Vanoni

Farmer

Past President of California Women for Agriculture, Ventura County Chapter

Simmons, Carrie

From: Steven Nash <mrswn@hotmail.com>
Sent: Wednesday, February 26, 2020 6:41 AM
To: General Plan Update
Subject: Comments on the Draft Environmental Impact Report for the Ventura County 2040 General Plan.

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

The entire assumption of a General Plan and its supporting documentation is to have a forward-looking plan to deal with land use, potential significant impacts and their mitigation measures within a geographical area. It is my belief, and the belief of many others, that climate disruption caused by greenhouse gas emissions is the primary concern that has to be addressed in this type of document. Any plan that attempts to provide a framework for mitigating significant impacts that does not place climate change at the very forefront of significant impacts is a deeply flawed document and is doomed to fulfill its "raison d'etre" which, ultimately, is to secure a safe and prosperous future for the residents and protect the physical environment under its jurisdiction.

The corrective action is to acknowledge the primacy of climate change and the devastating impacts that will be most severely felt in Ventura County. Climate change is caused by fossil fuel production and consumption. We must do our part to reduce oil production through thoughtful, rigorous policy to phase it out. All Goals and Policies incorporated within a General Plan must have annual quantifiable metrics and measurables that lead to a complete cessation of hydrocarbon extraction practices within the county and the elimination of hydrocarbon usage by a date certain.

Pg. 4.3-7, Policy PFS-2.5: County Employee Trip Reduction. The County shall encourage its employees to reduce the number and distance of single-occupancy vehicle work trips.

> What is the goal and how does the County plan on achieving it and in what time frame?

Pg. 4.3-8, Policy PFS-2.6: County Alternative Fuel Vehicle Purchases. The County shall review market-available technologies for alternative fuel vehicles and prioritize purchase of vehicles to reduce greenhouse gas emissions where economically feasible.

> What is the goal and how does the County plan on achieving it and in what time frame?

Pg. 4.3-8, Policy COS-8.1: Reduce Reliance on Fossil Fuels. The County shall promote the development and use of renewable energy sources (e.g., solar, thermal, wind, tidal, bioenergy) to reduce dependency on petroleum-based energy sources.

> What is the goal and how does the County plan on achieving it and in what time frame?

Pg. 4.3-8, Policy COS-8.6: Zero Net Energy and Zero Net Carbon Buildings. The County shall support the transition to zero net energy and zero net carbon buildings, including the electrification of new buildings.

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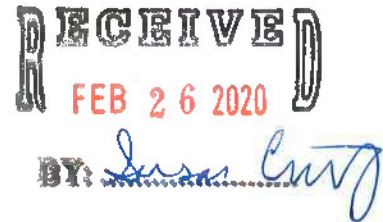
Action Needed: The county should adopt the strongest possible measures to ensure that greenhouse gas emissions are curbed to protect air quality and to ensure a safe, sustainable future for all county residents.

Therefore, in my opinion, this DEIR is inadequate, missing disclosure of plan impacts, lacking in meaningful and enforceable policies (e.g., substituting "shall" with "should"), incompletely quantified, and lacking mitigations for cumulative and incremental impacts.

Thank you for your time and consideration.

Steve Nash
2211 Laurel Valley Place
Oxnard, CA 93036
805-485-3626

Laura K. McAvoy
40 Encino Avenue
Camarillo, CA 93010



February 25, 2020

Ventura County Board of Supervisors
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

I'm writing to you as a resident of the County concerned about the viability of the oil and gas industry in Ventura County.

The 2040 General Plan Draft EIR fails to give proper analysis to oil and gas mineral resources.

Neither the EIR nor the Background report provide a complete and thorough description of the existing, current regulatory setting that oversees the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

The EIR fails to actually analyze for direct and indirect impacts to mineral resource zones that will occur as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses OVER known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. These incompatible land uses will significantly impact future mineral resource production and must be evaluated and mitigated for in the EIR.

The EIR never addresses indirect impacts to mineral resource development that will occur under the 2040 General Plan. As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to produce mineral resources in the County.

The Draft EIR is lacks critical analysis and must be corrected and recirculated to ensure a fair process for Ventura County residents.

Thank you,

A blue ink signature, likely of the sender, Laura K. McAvoy, written in a cursive style.

Robert & Sandra Kurtz
187 Stanislaus Avenue
Ventura, CA 93004

RECEIVED
FEB 26 2020
BY: Susan Curtis

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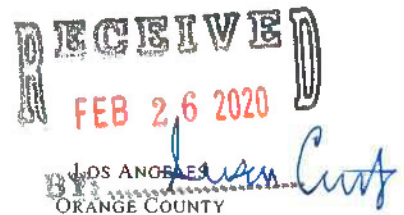
MusickPeeler

ATTORNEYS AT LAW

2801 TOWNSGATE ROAD, SUITE 200
WESTLAKE VILLAGE, CALIFORNIA 91361

TELEPHONE: (805) 418-3100
FACSIMILE: (805) 418-3101
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LAURA K. MCAVOY
l.mcavoy@musickpeeler.com
(805) 418-3115



SAN DIEGO
SAN FRANCISCO
SANTA BARBARA COUNTY
VENTURA COUNTY

FILE NO.: 13084.021

February 25, 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

Ventura County Board of Supervisors
Attn: Susan Curtis, Manager, General Plan Update Section
General Plan Update
800 South Victoria Avenue L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County 2040 General Plan Draft Environmental Impact Report (State Clearinghouse No. #2019011026)

Dear Ms. Curtis:

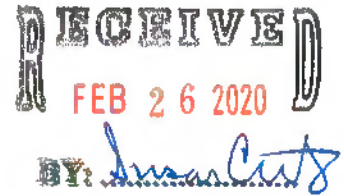
On behalf of Coast Ranch Family, LLC ("Coast"), I write to you with comments concerning the Draft Environmental Impact Report for the 2040 General Plan ("DEIR"). Coast is a significant landowner and mineral owner in Ventura County and the lessor under operating oil and gas leases. Upon review of the DEIR, we conclude that it is deficient in a number of ways and we respectfully request that the DEIR be significantly revised and recirculated as required by the California Environmental Quality Act and the corresponding State CEQA guidelines.

Rather than repeat all of the deficiencies, we hereby incorporate by reference the detailed commentaries supplied to you by Aera Energy, LLC substantially concurrently with this letter as well as the comments from the Western States Petroleum Association and other operators of producing fields in Ventura County.

From an overview perspective, the single biggest defect is the failure to consider the economic consequences of various policies contained within the Draft Ventura County 2040 General Plan as depicted in the DEIR. The loss of royalty income to a significant number of lessors, the significant increased cost to the economy should oil and gas production be further negatively impacted, the loss of property tax revenue to the County, the failure to address the feasibility or more appropriately said the infeasibility of many of the measures contained in the DEIR, etc. render the DEIR as materially deficient and therefore in violation of CEQA.

We tried to be respectful of your time by not just repeating the detailed comments otherwise provided as referenced above, but please be assured that does not mean that those

MusickPeeler

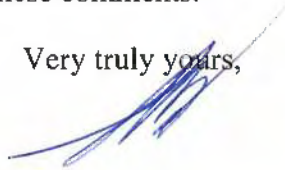


Ventura County Board of Supervisors
February 25, 2020
Page 2

comments are not significant and require deep attention in the form of a curing of the legal deficiencies and of recirculation of the DEIR prior to any approval of the 2040 General Plan.

Thank you for your attention to these comments.

Very truly yours,

A handwritten signature in blue ink, appearing to be "Laura K. McAvoy", written over a horizontal line.

Laura K. McAvoy
for MUSICK, PEELER & GARRETT LLP

LKM:srk
cc: Coast Ranch Family, LLC
1203509.1

Simmons, Carrie

From: John Brooks <johnbrooks69@gmail.com>
Sent: Wednesday, February 26, 2020 9:23 AM
To: Curtis, Susan; General Plan Update
Subject: Comments on Draft EIR

Dear Ventura County-

These comments written by Steve Nash and used with his permission are so wonderfully specific to the concerns that I have over the lack of concrete climate action that I am presenting them here as ideas I share.

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

[800 S. Victoria Ave.](#), L #1740

[Ventura, CA 93009-1740](#)

The entire assumption of a General Plan and its supporting documentation is to have a forward-looking plan to deal with land use, potential significant impacts and their mitigation measures within a geographical area.

It is my belief, and the belief of many others, that climate disruption caused by greenhouse gas emissions is the primary concern that has to be addressed in this type of document. Any plan that attempts to provide a framework for mitigating significant impacts that does not place climate change at the very forefront of significant impacts is a deeply flawed document and is doomed to fulfill its "raison d'etre" which, ultimately, is to secure a safe and prosperous future for the residents and protect the physical environment under its jurisdiction.

The corrective action is to acknowledge the primacy of climate change and the devastating impacts that will be most severely felt in Ventura County. Climate change is caused by fossil fuel production and consumption. We must do our part to reduce oil production through thoughtful, rigorous policy to phase it out. All Goals and Policies incorporated within a General Plan must have annual quantifiable metrics and measurables that lead to a complete cessation of hydrocarbon extraction practices within the county and the elimination of hydrocarbon usage by a date certain.

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Thank you for your time and consideration.

By Steve Nash

Endorsed by
John Brooks
Oak View

Simmons, Carrie

From: CFROG <cfrogvc@gmail.com>
Sent: Wednesday, February 26, 2020 11:11 AM
To: Curtis, Susan; General Plan Update
Subject: CFROG comments on General Plan Draft EIR
Attachments: attachment 1.docx

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

>
> Here are the comments
>
>
>



CFROG

Protecting Our Air, Water, and Climate

#201 940 E Santa Clara Street
Ventura, CA 93003
February, 2020

Comments regarding the suggested mitigation measure for Pipeline Requirement, COS-7.7, Mitigation Measure PR-2

The Ventura County Board of Supervisors, after public discussion and review, approved a new policy, COS-7.7, to require new oil wells to use pipelines to convey oil and produced water offsite (rather than trucking). This new policy is part of the 2040 General Plan. The DEIR for the plan analyzed the policy and found that the requirement for pipelines in COS-7.7 ... *“proposed in the 2040 General Plan that would result in new requirements that would apply to new projects subject to discretionary action by the County that could limit petroleum extraction without placing a physical limitation on location or access.”*

The DEIR also found that COS-7.7 could reduce attainment of the following 2040 General Plan Guiding Principle:

***Economic Vitality:** Foster economic and job growth that is responsive to the evolving needs and opportunities of the County’s economy and preserves land use compatibility with Naval Base Ventura County and the Port of Hueneme, while enhancing quality of life and promoting environmental sustainability.*

Assumptions in the DEIR leading to the finding regarding economic vitality are based on inadequate and inaccurate information.

Figure 4.12-4 in the DEIR is a map showing conveyance pipelines throughout Ventura County and an arbitrary two-mile boundary around each conveyance pipeline. The map also shows active oil wells within and outside of the two-mile boundary. Based upon the boundary line, the DEIR makes the following assumption: *“For purposes of the following analysis and based on the estimated per mile cost to install pipelines, it is assumed that any existing oil wells located within a 2-mile radius of a major oil or gas transmission pipeline are connected to these transmission lines through smaller gathering or minor pipelines.”* (DEIR 4.12-26)

The DEIR goes on to assume that operators inside the two-mile boundary will be able to meet the API gravity requirements of the pipeline operator and those outside of the two-mile boundary would not be able to meet the API requirements. Based upon those assumptions the DEIR analysis concludes: *“Therefore, it is assumed that most operators located beyond the two-mile radius of a major transmission pipeline would not be able to comply with the pipeline requirements of Policy COS-7.7 due to the technological and economic infeasibility of installing lengthier pipelines greater than two-miles from*

new oil wells to a major oil transmission line or due to the additional on-site production facilities to process crude oil in order to comply with API gravity thresholds and standards in order to convey oil through a major oil transmission pipeline.”

To support this conclusion the analysis goes on to assume that “The oil operators located beyond the two-mile radius, and in more remote locations, likely consist of smaller oil producing operations that are not extracting a large amount of oil.”

Figure 4.12-4, (DEIR, 4.12-25, map) tells a very different story about operators outside the two-mile boundary according to data from the Conservation California government website <https://maps.conservation.ca.gov/doggr/wellfinder/#/-118.81117/34.45021/12>

The DEIR says there are 472 active oil wells outside the two-mile boundary depicted on Figure 4.12-4. While the Figure is very hard to interpret due to its size and format, it does not show 472 active oil wells outside of the two-mile boundary. The DOGGR wellfinder website shows four discrete clusters (more than 5 active wells) of active oil wells adjacent to and beyond the arbitrary two-mile boundary. One of the largest clusters is the Timber Canyon oil lease between Santa Paula and Upper Ojai and the other is to the northwest of Fillmore in the Sespe oilfield in Ventura County. **Both the Timber Canyon oilfield and the Sespe oilfield are in the Los Padres National Forest where oil wells and facilities are permitted by the BLM.** A coalition of environmental groups and the State of California filed two separate lawsuits in October, 2018, to reinstate the Waste Prevention Rule that significantly affected flaring in the National Forest. The Trump Administration had rolled back that Rule in 2016. It seems unclear if a rule to eliminate trucking of new oil production in Ventura County would affect oil coming across county roads from BLM permitted oil wells, and the issue is not discussed in the DEIR. Since Figure 4.12-4 does not include Forest boundary lines, it is completely unclear what oil wells outside the two-mile boundary may be within the forest, but counted in the 472 active oil wells “depicted” on the Figure.

Carbon California is not a small remote operator that lacks the ability to build additional onsite production facilities to process crude oil in order to comply with transmission pipeline API gravity requirements. Nor is it a small operator that cannot feasibly build an oil pipeline to a transmission sales pipeline. It currently utilizes a gas pipeline from Timber Canyon to the So Cal Gas pipeline, so it is highly likely an oil pipeline could also be constructed.

The second large cluster of active oil wells outside the two-mile boundary is also owned and operated by Carbon California.

The Sespe Oilfield, in the Los Padres Forest, Ventura County, is owned and operated by Carbon California which acquired the land and lease from Seneca in 2018 for 43 million dollars. Carbon has approximately 100 active wells in this field outside of the two-mile boundary. The DOGGR wellfinder interactive map appears to show that all of the active oil wells north of Fillmore are operated by Carbon with the possible exception of one or two individual wells. There is a major transmission pipeline that serves some of the Carbon wells in the Sespe oilfield. There are at least 4 active wastewater injection wells in the field.

Because the DEIR lacks information regarding the ownership of active oil wells, and lacks an analysis of the actual size of oilfields near or outside the two-mile boundary, it is unclear how assumptions could be made about the types of operators, API gravity of produced oil, and assumptions that pipelines would have to be individually constructed over two-miles by small operators.

The remaining two smaller clusters (greater than 5) of active oil wells outside the two-mile boundary are on Sulphur Mountain and above Piru. Termo's facility is on Sulphur Mountain. Termo received a CUP in the 1980's and at the time was required to build a pipeline to transmit oil and gas. Termo built the pipeline and transmits its oil and gas to the transmission pipeline running through Upper Ojai. Termo uses an injection well for its produced water.

The last small cluster of active oil wells outside the two-mile boundary is above Piru. There are approximately 14 active oil wells scattered in the oilfield, operated by two companies, DCOR and AMPLE. According to Figure 4.12-4, approximately 20 active wells inside the two-mile boundary in the same area are assumed to be connected to the main transmission line that runs along Highway 126. The map also shows that 8 of the 14 wells outside the arbitrary two-mile boundary are adjacent to or on the boundary line. It would be highly beneficial to the community of Piru if pipelines were required. The citizens would directly benefit from better air quality, less noise, less truck traffic, and significantly reduced risk of accidents if oil and wastewater is not trucked down the main street of Piru.

All of the oil wells in Oxnard, Ventura, and south-west of Santa Paula are assumed to be connected to pipelines according to Figure 4.12-4 and the DEIR discussion.

Produced Wastewater is often reinjected onsite primarily because the oil fields in Ventura County are older, contain more wells, and are likely to have an unnecessary well that can be used for injection.

The DEIR uses the same unsubstantiated assumptions to argue that wastewater cannot be either reinjected or transmitted via pipeline if the facility is over two-miles from a transmission pipeline. However, the wastewater from the two largest clusters of active oil wells and at least one of the smaller clusters outside the two-mile boundary is already being reinjected onsite.

Operators outside of the two-mile boundary can connect to their own onsite pipelines within the two-mile boundary in most locations

Another false assumption in the DEIR is that operators outside the two-mile boundary would have to build their own pipelines from each new oil well all the way to the transmission line. Since there has been significant consolidation of ownership of oil leases in Ventura County in the past five years, most operators outside the boundary who wish to drill new additional oil wells are the same operators inside the boundary line with gathering lines that can be tapped into for conveyance to larger transmission lines. Additionally, current Ventura County zoning ordinances specifically encourage operators to consolidate and share facilities such as pipelines and infrastructure to achieve API oil gravity requirements. (*NCZO Sec. 8107-5.5.4 Permittees and*

operators should share facilities such as, but not limited to, permit areas, drill sites, access roads, storage, production and processing facilities and pipelines.)

Feasibility Study cited in DEIR showing the economic hardship to an operator to build a pipeline from his drill site is within the two-mile boundary and should be connected to a major conveyance pipeline, according to the DEIR analysis

The DEIR finding assumes that small operators would be protected financially if there was a physical limitation on the location of the requirement for pipelines. That assumption is based on the idea that most small operators are outside of a two-mile boundary around major transmission lines in the County. For evidence, the DEIR included a summary of a feasibility study conducted by Renaissance Petroleum to determine whether or not oil could be transmitted by pipeline from the Nauman drill pad through agricultural land in Oxnard. Figure 4.12-4 (map) clearly shows the Renaissance Petroleum Nauman drill site well within the two-mile boundary of a major transmission pipeline. In fact, the map shows all active wells in the Oxnard area are within the two-mile boundary.

Regardless of the feasibility of the pipeline, the expansion permit for Renaissance Petroleum was denied by the Board of Supervisors because of public health concerns based upon its close proximity to a densely populated mobile home park in a disadvantaged neighborhood.

The real number of small operators wishing to drill new oil wells in areas outside of the two-mile boundary whose oil production will be outside of the API gravity requirements and do not have access to facilities to meet those requirements is extremely small. Therefore, the small number should not have a significant impact on the economic prosperity of Ventura County, on jobs or on oil production.

Additionally, the small amount of oil that will be affected by new policy COS-7.7 will not substantially reduce the regional availability of oil and gas and it would not render any large oilfield inaccessible such as the oilfields Ojai, Oxnard, South Mountain, Santa Paula, or Ventura.

In the event the county determines they should issue a statement of overriding considerations, the County should determine that this impact is acceptable because specific overriding economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of the proposed policy outweigh its significant effects on the environment.

CFROG Request the DEIR be amended to find: IMPACT of new policy COS-7.7: LESS THAN SIGNIFICANT

Action required: Withdraw mitigation measure PR-2, find the impact to economic prosperity less than significant, and restore COS-7.7 to the 2040 General Plan as the Board of Supervisors intended.

A local, grassroots organization protecting our water, air, and climate

PO BOX 114 | OJAI, CA 93024 | 805-794-0282 | ED@CFROG.ORG | www.CFROG.org

CFROG is a 501(c)(3) tax-exempt organization

Simmons, Carrie

From: Luis Gomez <gomez@ojaicity.org>
Sent: Wednesday, February 26, 2020 11:12 AM
To: General Plan Update
Subject: City of Ojai- 2040 County General Plan Update – EIR Comments
Attachments: County General Plan Update – EIR Comments.pdf

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Dear Ms. Curtis,

On behalf of Ojai City Manager James Vega, attached you may find a letter containing the City's EIR comments relating to the 2040 County General Plan. If you have any questions or if can be of assistance, please feel free to contact me.

Kind Regards,

Luis Gomez
Office Specialist II
City Manager's Office
401 S. Ventura Street, Ojai CA 93023
(805) 646-5581 x103
gomez@ojaicity.org



OFFICE OF THE CITY MANAGER

James Vega, City Manager 401 S.

Ventura Street, Ojai, CA 93023

February 26, 2020

Ventura County Board of Supervisors
800 S. Victoria Avenue
Ventura, CA 93009

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

RE: 2040 County General Plan Update – EIR Comments

Honorable Board Members and Ms. Curtis:

The Ojai City Council is very concerned about air pollution and the effects of Climate Change on our city and its residents. We are experiencing the drastic effects of Climate Change, as evidenced by the Thomas Fire, water shortages, and the persistent drought. We have adopted a Climate Emergency resolution and have created a Climate Emergency Mobilization Committee to make recommendations to council on actions the City can take to reduce emissions of greenhouse gases and remove them from the atmosphere.

Accordingly, we are submitting the following comments.

1. In September, the Board of Supervisors approved a number of General Plan policies and programs designed to achieve unincorporated Ventura County's fair share of greenhouse gas emission reductions in line with the State's reduction targets (41.3% reduction of 2015 emissions by 2030, 61.9% reduction by 2040, and 80.4% reduction by 2050). However, in the draft EIR, is the statement "...the County... cannot conclude, at this program level of analysis, that future GHG emissions in the county under the 2040 General Plan would be sufficiently reduced to meet the State's 2030 or post-2030 targets."

We find this conclusion to be unacceptable. As proposed, the General Plan has failed to accomplish its own stated objective – achieving the County's fair share of GHG emission reductions. This must be remedied. We are experiencing a Climate Emergency in Ventura County

and County government must do its fair share to deal with it. General Plan policies should clearly demonstrate that the County will meet or exceed State and County GHG emission reductions. Failure to make this demonstration is a serious flaw in the draft EIR and draft General Plan.

2. One of the major source categories of air pollution and greenhouse gas emissions affecting Ojai is the oil and gas industry. Ojai is downwind of many O&G sources in both the Ojai Valley and Ventura River Valley.

The Board of Supervisors in September approved two important new policies that are intended to reduce negative impacts of the O&G industry, particularly with respect to air pollution, climate change, and other public health and safety impacts:

Policy COS-7.7: Conveyance for Oil and Produced Water. The County shall require new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be trucked

Policy COS-7.8: Gas Collection, Use, and Disposal. The County shall require that gases emitted from all new discretionary oil and gas wells shall be collected and used or removed for sale or proper disposal. Flaring or venting shall only be allowed in cases of emergency or for testing purposes.

With respect to these two policies, staff and their consultant have stated that the two policies would result in an impact (loss of availability of a known petroleum resource that would be of value to the region and residents of the state), and to mitigate that impact staff have proposed to change the two policies (by adding mitigation measures PR-2 and PR-3) so as to allow flaring and trucking of oil and produced water. Incredibly, the proposed mitigation measures would effectively cancel out the two policies adopted by the Board, and would cancel out the benefits of the original policies in reducing air pollution and greenhouse gas emissions, and providing other health and safety benefits.

We strongly recommend that mitigation measures PR-2 and PR-3 be rejected and removed from the EIR, and that the original policies COS-7.7 and COS-7.8 adopted by the Board be retained.

3. The greenhouse gas emission inventory in the EIR is flawed, and does not accurately provide an inventory of greenhouse gases in the County. As an example, realistic methane global warming potential and industrial energy uses were not accurately documented. Comprehensively addressing Climate Change requires starting with an accurate emission inventory. We recommend that the County contract with the APCD or a qualified outside consultant to produce a more accurate and valid GHG emission inventory.

In summary, we strongly recommend that the Board of Supervisors exercise leadership on behalf of the citizens of the County and take a stand in these matters, and communicate with the County staff in the strongest manner possible the City of Ojai's opposition to what we consider to be the County staff's inappropriate attempt to use administrative maneuvers to subvert policies passed by duly elected officials – your Board of Supervisors.

Climate Change is upon us. It is time to act aggressively.

Thank you for the opportunity to comment.

Sincerely,



James Vega,
City Manager

cc: Ojai City Council
Camarillo City Council
Fillmore City Council
Moorpark City Council
Oxnard City Council
Port Hueneme City Council
Santa Paula City Council
Simi Valley City Council
Thousand Oaks City Council
Ventura City Council

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Wednesday, February 26, 2020 12:32 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

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You have a NEW Comment

Name:

Christine Brennan

Contact Information:

christinebrennan65@me.com

Comment On:

climate Action Plan

Your Comment:

I am a 30 year resident of Ojai. I am currently a board member of Ojai Trees a nonprofit tree planting organization. I am alarmed at the current climate change rate and fully endorse CFROG additions to the plan. Climate change is caused by fossil fuel production and consumption. The CAP addresses the consumption side by merely encouraging, but not requiring, electric fuel vehicles and clean power for homes and businesses. But Ventura County is the third largest oil and gas producing county in California. As such, we must do our part to reduce oil production through thoughtful, rigorous policy to phase it out. This is not addressed.

Simmons, Carrie

From: Lisa Woodburn <LisaW@JDSCIVIL.COM>
Sent: Wednesday, February 26, 2020 12:40 PM
To: General Plan Update
Subject: Comments on County GP Update Draft EIR

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I would like to offer the following comments:

Mitigation Measure AG-2: New Implementation Program AG-X: Establish an Agricultural Conservation Easement: This Mitigation Measure is unfeasible and unnecessary and unforeseen consequences of implementing this mitigation measure have not been identified. There are many existing programs and policies in Ventura County that prohibits the conversion of agricultural land for urban development. SOAR, the LCA Contract program, the Initial Study Assessment Guidelines and Guidelines for Orderly Development are all programs that protect against the loss of agricultural land in Ventura County. To add a policy that would require the purchasing of offsite farmland on a 2:1 ratio (acres preserved : acres converted) through the establishment of an offsite agricultural conservation easement for all discretionary development over a certain size is unfeasible and unnecessary.

I am currently involved in a farmworker housing project that would be subject to this mitigation measure policy. In order to develop 360 units of much needed farmworker housing in the County, we are impacting just over 18 acres of prime farmland. We will be processing an EIR because of the significant loss of ag soils as identified in the County's Initial Study Assessment Guidelines and will be requesting that the Board of Supervisors adopts overriding considerations due to the dire need for farmworker housing in Ventura County. If mitigation measure AG-2 was in effect, this project would not be moving forward due to the extreme financial burden it would place on the non-profit housing developer of this project. I cannot imagine any farmworker housing complex project being able to absorb the financial burden associated with mitigation measure AG-2.

The other issue I have with this mitigation measure is that it is applicable to all land use designations in the County with an important farmland inventory classification. There could be land in the County located in an urban area but is currently farmed and is therefore classified as important farmland inventory. Therefore it could be designated Urban and zoned for some type of urban development, but because it has not developed yet, that property owner will be burdened with this mitigation measure.

In short, I urge the Board of Supervisors to not adopt mitigation measure AG-X. It will lead to impacts on important development needed to keep agriculture viable in Ventura County such as Farmworker Housing Complexes and Preliminary Packing Facilities.

Sincerely,

Lisa Woodburn, Planning Manager
Jensen Design & Survey, Inc.

M 805.654.6977 | D 805.633.2251 | F 805.633.2351
1672 Donlon St. Ventura, CA 93003

lisaw@jds civil.com | www.jds civil.com

Simmons, Carrie

From: June Behar <beharjune@gmail.com>
Sent: Wednesday, February 26, 2020 1:17 PM
To: General Plan Update
Subject: Comments on General Plan Update

I am a resident of Upper Ojai, unincorporated Ventura County, at 12048 Sulphur Mountain Road, Ojai CA 93023. Please add this material to the public comments on the VC2040 General Plan Update:

Setting policy to deal with climate change in Ventura County requires expert scientific and technical input so that the Climate Action Plan (CAP) is meaningful and can achieve significant greenhouse gas emission reduction goals. VC should contract with an experienced consulting team as Los Angeles City and County have done in order to improve emissions reduction efforts here and meet state climate goals.

Ventura's General Plan Update should include the goal of eliminating fossil fuel production in the County, including drilling, production and refining, in order to reduce pollution. Phasing out production should include policy measures, strict enforcement of regulations, and the closing of loopholes that, for example, would allow trucking of oil and produced water if oil companies claim pipeline construction costs are too high. Maintain Policy COS-7.7 and Policy COS-7.8 as recommended by the VC Board of Supervisors.

Climate Action Plan policies must be able to produce measurable and enforceable emission reductions instead of asking for voluntary actions from the County's oil and gas operators. Revise this plan to ensure that greenhouse gas emissions and groundwater pollution will be curbed, starting immediately. In particular, maintain and defend the five-pound air emissions limit for the Ojai Valley, and force projects subject to CEQA review to fully evaluate TOTAL air emissions and require strict mitigation of local air quality impacts.

In conclusion, it is critical that Ventura County adopt climate policies for the future based on expert study and experience; provide for strong and rigorous evaluation of potential adverse impacts in all projects, and enforce regulations without allowing loopholes. We longtime property owners and our families, the future generations of our population, deserve no less.

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 12:42 PM
To: Simmons, Carrie
Subject: FW: Comments on General Plan/EIR

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Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Mary Chambers Moro <maryellen.moro@verizon.net>
Sent: Wednesday, February 26, 2020 11:37 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: James Chambers <costacasas@gmail.com>
Subject: Comments on General Plan/EIR

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he

raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.
3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously

rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,

Mary Chambers Moro

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 12:43 PM
To: Simmons, Carrie
Subject: FW: Comments on General Plan/EIR

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Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Mary Chambers Moro <maryellen.moro@verizon.net>
Sent: Wednesday, February 26, 2020 11:45 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on General Plan/EIR

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation

twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time,

” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

February 19, 2020

.....
[Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org](mailto:info@colabvc.org)

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County’s Zoning Ordinance and the County’s minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish

an “Agricultural Mitigation Measure” through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park’s proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, “the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter.”

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses “indirect impacts” that will occur as a result of implementing the 2040 General Plan as “less than significant.”

Page 4.2-13 of the EIR states “AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production.”

Page 4.2-17 of the EIR states: “Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...**Therefore, the potential for conflicts would be minimal. This impact would be less than significant**” (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

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Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and

programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion.

But the County fails to analyze or propose mitigation measures to address this significant impact.

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

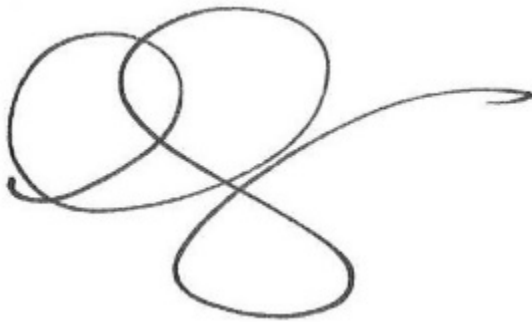
CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director

A handwritten signature in black ink, consisting of several overlapping loops and a long, sweeping tail that extends to the right.

In support of this letter-
Mary Chambers Moro

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 12:43 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Alda Perry <aldaperry@gmail.com>
Sent: Wednesday, February 26, 2020 12:35 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

To: Ms Susan Curtis

Ventura County's proposed 2040 General Plan is based on a flawed and deficient analysis of the impacts this proposal will have on agriculture, water supplies, and wildfire risk. State law, under the California Environmental Quality Act (CEQA), requires an "environmental impact report" (EIR) be prepared to evaluate and analyze the impact of the proposed changes. The County has not complied with CEQA because of its reliance on an inadequate and hurriedly compiled EIR.

A few of the "big issues:"

- 1) CEQA requires that any mitigation measures proposed in the EIR be technically and economically feasible. But many of the County's proposed mitigation measures are infeasible.
- 2) CEQA requires that the EIR use accurate and detailed data in the analysis. But the EIR and its 1000+page Background Report are filled with errors, vague statements and outdated information.
- 3) CEQA demands that any policies that increase wildfire risk be analyzed. Yet the EIR doesn't even mention policies from the General Plan that will significantly increase fuel load in high fire risk areas.

4) CEQA requires that both direct and indirect impacts be analyzed. Yet the County simply fails to analyze the impact of competition for water supplies on agriculture, even though the EIR admits that the increased development resulting from the General Plan will result in less water for irrigation.

A significant **indirect** impact required to be addressed by CEQA has not been analyzed in the development of the new General Plan. The County failed to analyze or propose mitigation for any indirect significant impacts on agriculture from the buildout that will occur from the 2040 General Plan.

As a resident of Ventura County and a committed Ventura County farmer^[1] for over 40 years, and a member of a Ventura County farming family for over 150 years, I have seen that complaints from encroaching urban uses will mandate changes in normal farming practices. This most recent example of this is the new hemp cultivation set back.

As population grows, there will be more and more complaints of dust, odors, water use, types of crops grown. There will be more theft and vandalism^[2] - which increases costs to the farmer and cause the County to pass new rules that put more restrictions on agriculture.

The County did not discuss these indirect impacts in their analysis, and they did not propose any mitigation to reduce this impact. The County needs to fully evaluation how encroaching development will impact the long-term sustainability of agriculture in the County and propose mitigation that addresses impacts in a way that reduces restrictions on agriculture.

Based on the substantial flaws and deficiencies of the EIR relied on by the County in its design of the new General Plan, as a citizen and farmer, I demand that the County correct and re-circulate the EIR.

Thank you for your attention to my concerns.

Alda L. Perry

^[1] Our ranch has been contracted with the County for many years under the Williamson Act.

^[2] Just last month our ranch suffered an avocado theft. See Crime Report Number 20-8138. In recent years we have has our well disabled **twice** in a thief's effort to steal the copper wiring that runs from the electrical box to the submersible pump approximately 700 feet in the ground. Before that we had several hundred feet of chain-link fencing ripped out by a vandal who stole a neighbor's tractor and ran it into the fence. Our ranch is in a very remote area, yet we still suffer from encroaching "civilization."

--

Please note my new email is"

aldaperry@gmail.com

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 1:12 PM
To: Simmons, Carrie
Subject: FW: Ventura General Plan Review-Deadline Extension Request

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Lin, Alan S@DOT <alan.lin@dot.ca.gov>
Sent: Tuesday, February 25, 2020 10:36 AM
To: Downing, Clay <clay.downing@ventura.org>
Cc: Duong, Frances M@DOT <Frances.Duong@dot.ca.gov>; Edmonson, Miya R@DOT <miya.edmonson@dot.ca.gov>
Subject: Ventura General Plan Review-Deadline Extension Request

Clay,

Per our phone conversation today and discussion with management, we would like to request an extension to send Caltrans comment letter. Please extension CEQA deadline to March 18, 2020 if possible.

All future correspondences should send to Ms. Miya Edmonson, Branch Chief, for review.

Thank you!

Alan Lin, P.E.
Project Coordinator
State of California
Department of Transportation
District 7, Office of Transportation Planning
Mail Station 16
100 South Main Street

Los Angeles, CA 90012
(213) 897-8391 Office
(213) 897-1337 Fax

Simmons, Carrie

From: Dan Drugan <DDrugan@calleguas.com>
Sent: Wednesday, February 26, 2020 2:05 PM
To: General Plan Update
Cc: Goff, Tony; Jennifer Lancaster
Subject: Calleguas MWD Comment Letter on Ventura County 2040 General Plan
Attachments: 2020-02-26_CMWD_VC_2040_DEIR_Comment_Ltr.pdf

Importance: High

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Good afternoon,

Please see the attached comment letter from Calleguas on the draft Ventura County 2040 General Plan. If you have any questions, feel free to contact me directly.

Best,

Dan Drugan
Calleguas MWD
(805) 579-7185 Office
(818) 515-6461 Cell

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web site: www.calleguas.com

2100 OLSEN ROAD • THOUSAND OAKS, CALIFORNIA 91360-6800 805/526-9323 • FAX: 805/522-5730

February 24, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Dear Ms. Curtis:

Calleguas Municipal Water District (Calleguas) appreciates the opportunity to comment on the Draft Environmental Impact Report (DEIR; SCH# 2019011026) for the Ventura County 2040 General Plan, released for public review on January 13, 2020.

Calleguas is one of twenty-six member agencies of the Metropolitan Water District of Southern California (Metropolitan) and the primary urban water supplier in Ventura County, providing potable water service to three quarters of County's population. Through 19 retail water agencies and companies, Calleguas provides water to the cities of Oxnard, Camarillo, Moorpark, Simi Valley, Thousand Oaks, and Port Hueneme as well as surrounding areas of unincorporated Ventura County.

The Water Resources Element of the General Plan includes new and updated policies regarding water use efficiency, conservation, and supply in unincorporated Ventura County, including those areas within Calleguas' service area. We support these policies that encourage water conservation and water use efficiency, and regional collaboration and diversifying water sources to ensure a reliable supply of potable water while protecting water quality and environmental resources.

We offer the following specific comments regarding water resources:

Background Report (Appendix B of the DEIR)

The Background Report provides the basis for the environmental setting presented in the DEIR. However, there are several technical clarifications that should be made with regard to Calleguas' service area and retail water purveyors.

On page 10-47 (Figure 10-4, Water Purveyors in Santa Clara River Watershed), “Calleguas Wholesale District” is identified with Casitas as the supplier and Sisar MWC as the Water Company. Casitas is not a supplier to Calleguas, and Sisar MWC is not a Calleguas purveyor.

On page 10-59 (Figure 10-5, Water Purveyors in Calleguas Creek Watershed), several of the Water Companies listed for Calleguas either no longer exist or are not member retail purveyors of Calleguas. Please review the Calleguas 2015 Urban Water Management Plan for the current list of member purveyors (Section 3.0 System Description): <http://www.calleguas.com/images/docs-documents-reports/cmwdfinal2015uwmp.pdf>. Note that Figure 10-5 also includes the Oxnard Plain, a subwatershed of the Santa Clara River.

Lake Sherwood/Hidden Valley Area Plan

The proposed Lake Sherwood/Hidden Valley Area Plan contains several policies that address water supply. LS-58.2 (Water System Service Area) states that the water system serving the Lake Sherwood Community shall be sized to only serve the Lake Sherwood Community and existing or replacement single-family dwellings outside the Lake Sherwood Community which will be directly connected by a private lateral water line. LS 58.3 (Water Distribution System Sizing) requires that the water distribution system for the Lake Sherwood Community must be sized no larger than necessary to serve the community (see also Goal LS-60). However, LS 58.4 (Requirement for Publicly Operated Water Supplier) states: “The County shall require discretionary development to be served by a publicly operated water supplier. The County shall require all facilities to meet or exceed County Waterworks Standards.” This appears to conflict with LS-58.2, LS-58.3, and LS-60. Discretionary development within the Area Plan that is outside of the Lake Sherwood Community may need to be annexed to Calleguas and Metropolitan in order to access imported water via our local publicly operated water purveyor, Ventura County Waterworks District 38. Further, if existing properties within the Plan Area but outside of the Lake Sherwood Community wish to receive imported water due to issues with the quality or quantity of available groundwater, Policies LS-58.2 and LS-58.3 may present an obstacle for them to do so. Allowing property owners to pursue annexation to Calleguas and Metropolitan in order to access imported water would support Goal LS-64 (To protect against overdrafting of the area’s groundwater basins). It would also support General Plan Policies WR-1.1 (Sustainable Water Supply), WR-1.3 (Portfolio of Water Sources), and WR-1.4 (State Water Sources).

Ideally, a comprehensive planning effort should be undertaken by stakeholders to understand the water issues facing Hidden Valley. A piecemeal approach toward annexation of parcels and an area plan that restricts extension of water utility service are not prudent pathways to achieve future development goals.

Draft EIR Section 4.17 (Utilities)

Table 4.17-2 (Existing Water Supplies and Demands) segments water providers, supplies, and annual water demands by each major watershed within the County. The report states that “the small portion of the Malibu Creek Watershed that falls in Ventura County is included with the

information on the Calleguas Creek Watershed for the purposes of this document.” This table should include Ventura County Waterworks District No. 38 under “Municipal Water Suppliers” for the Calleguas Creek.

Annual water demands characterized in Table 4.17-2 may be significantly higher than current water agency forecasts. New statewide water use efficiency regulations – also known as *Make Water Conservation a California Way of Life* – will soon be implemented. Each year, starting in 2023, retail water agencies will be held responsible for ensuring their system-wide, aggregate water use falls within a calculated water budget. Under the new law, the State may assess penalties on water suppliers that don’t meet their objectives beginning in 2027. We recommend the DEIR reference the upcoming water efficiency standards that will be developed by Department of Water Resources and the State Water Resources Control Board.

We appreciate the opportunity to comment on the DEIR for the Ventura County 2040 General Plan. Should you have any questions regarding these comments, please do not hesitate to contact me at (805) 579-7185 or by email at ddrugan@calleguas.com. We look forward to reviewing the Final EIR.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Drugan".

Dan Drugan
Manager of Resources

cc: Anthony Goff, General Manager
Jennifer Lancaster, Principal Resource Specialist

Simmons, Carrie

From: Louise Lampara <llampara@colabvc.org>
Sent: Wednesday, February 26, 2020 2:10 PM
To: Curtis, Susan; General Plan Update
Subject: Electronic copy of CoLAB comments on the 2040 General Plan EIR
Attachments: CoLAB Letter EIR Comments_ FINAL.pdf

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Hard copy with wet signature was hand delivered to Ventura County Planning yesterday, February 25, 2020 at approximately 3 p.m. Electronic copy attached for your review.

Please confirm receipt. And thank you for considering our comments.

Louise

“Collaboration for Sensible Regulatory Solutions”

Louise Lampara
Executive Director
Ventura County Coalition of Labor Agriculture and Business
Phone (805) 633-2257
Cell (805)797-5679
Email: llampara@colabvc.org
Website: www.colabvc.org



Celebrating 10 years of advocacy: 2010 - 2020

February 25, 2020

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Director

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Re: 2040 General Plan Draft Environmental Impact Report

Dear Ms. Curtis:

Thank you for the opportunity to provide our comments on the 2040 General Plan Draft Environmental Impact Report (EIR). Ventura County CoLAB represents over 500 members consisting of citizens, labor organizations, businesses and agricultural interests in Ventura County. We have been actively participating in the 2040 General Plan Update process and hope that you will give our comments on the EIR full consideration as you move forward with your response.

CoLAB has identified several significant concerns with the EIR. As you are aware, the County has an obligation under the California Environmental Quality Act (CEQA) to disclose, thoroughly analyze and quantify all reasonably foreseeable impacts of a project (here, defined as the implementation of the 2040 General Plan), and propose feasible mitigation measures to reduce these impacts.

While we understand that programmatic-EIRs are necessarily broader in scope than project-specific EIRs, all EIRs must comply with CEQA guidelines, including the requirement that all required information be included in the EIR to support any analysis of impacts. In addition, CEQA guidelines specifically state that the agency cannot defer, or "push off" to a future project-specific analysis, the determination of reasonably foreseeable impacts in the programmatic EIR (15152(b)).

In a 2014 ruling, the California Court of Appeal upheld the CEQA standard, stating "Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the "rule of reason," rather than any semantic label accorded to the EIR."

The 2040 General Plan EIR, as written, does not meet CEQA standards and must be revised and recirculated.

General Comments

- There are glaring inconsistencies of policies in the 2040 General Plan. The 2040 General Plan contains policies that conflict, are infeasible, are vague and ineffective, or attempt to pre-emptively seize authority that the County does not have. Any analysis of impacts in the EIR that relies upon such flawed policies for significance determination is deficient and unsupportable.

As an example, this EIR applies policies that “encourage” or “discourage” behaviors as evidence of reducing an impact to “less than significant.” But the EIR does not provide success metrics for any “encourage/discourage” policies. Nor does the EIR contain any discussion that differentiates as to what level of “encourage/discourage” compliance led to the determination that the impact was reduced to “less than significant”; likewise, the level of “encourage/discourage” non-compliance that would lead to a determination of “significant.”

- CEQA defines the project as the “whole of an action” subject to a public agency’s approval or funding “that may result either directly or indirectly in physical changes to the environment.” However, throughout the document, the EIR fails to analyze or discuss *all* policies and programs that will result in impacts.

As an example: The EIR does not discuss and consider the complete implementation of the 2040 General Plan (including all policies or programs that will increase vegetation fuel loads) in the analysis and determination of wildfire impacts. In another section, the EIR does not evaluate the implementation of the 2040 General Plan (including buildout under the Land Use Designations, which will increase competition for water supply) in the analysis and determination of impacts on agricultural land.

“Cherry-picking” select portions of the whole project for impact analysis and determination does not meet the CEQA standards. The EIR must be revised to analyze and disclose the impacts of the whole project, which is the entire 2040 General Plan.

Project Description

- The 2040 General Plan and EIR are inconsistent in their description of the project. The EIR does not provide a complete list of all policies and programs in the 2040 General Plan (example: LU-11.X). The EIR does not describe or identify which policies and programs of the 2040 General Plan are meant to replace or modify which policies and programs in the existing General Plan. The EIR also does not identify which existing General Plan policies and programs are being removed as part of this project. Without this information (perhaps provided as a matrix outlining additions, modifications, updates, and replacements), the EIR does not provide the reader with information necessary to evaluate or understand the County’s analysis of impacts.

- The Project Description does not provide sufficient information necessary to analyze and determine impacts. The EIR provides only a vague description of the Land Use Designations that will exist under the 2040 General Plan, and vague statements of “buildout” allowing “relatively higher intensity” residential, commercial and industrial land uses. Neither the EIR nor the Background Report provide information regarding estimated and anticipated “buildout” in terms of acreage, actual location, number of dwelling units, and development density and intensity. The EIR contains no information regarding the amount, timing, and final anticipated buildout under the 2040 General Plan. While the lack of information may be due to the EIR being completed prior to the issuance of Regional Housing Needs Allocation numbers from the State, such vague and meaningless information does not meet the CEQA standard for analysis and determination of impacts.

In addition, there are conflicting and confusing statements throughout the EIR about the anticipated “buildout” under the 2040 General Plan. In one section, the EIR states that development anticipated under the 2040 General Plan Land Use Designations will be “consistent with densities and intensities” allowed under current zoning. And in another section, the EIR states that development will be “relatively higher” in density and intensity than current. Without consistent, detailed, and accurate information regarding the anticipated buildout under the 2040 General Plan, the impact analyses in the EIR are flawed and incomplete and must be revised.

Background Report and supporting Appendices

Throughout the EIR, the reader is referred to the Background Report and Appendices for all data and technical information used in the analyses of impacts. In actuality, many sections of the Background Report contain only general, outdated, incomplete, and, at times, incorrect information. In some instances, information and data conflict between different Appendices. Unsupported, erroneous, outdated and conflicting information should not be used for impact analysis.

- Example: Outdated information

All data (whether in prose or tabulated form) in Chapter 9 of the Background Report is grossly outdated. This includes readily accessible data, such as crop reports. Current data on crops and crop production is publicly available and can be downloaded from the County’s own Agricultural Commissioner’s Office website.

Providing “older data” is helpful to evaluate historic trends. However, in every section, the EIR refers the reader to the Background Report for the project’s “current” conditions.

The Background Report must be updated with the most current data available. Failure to disclose and apply current and timely information and data in the analysis of impacts renders the analyses in the EIR incomplete, at best.

- Example: Incorrect data:

Page 2-54 states "...[the oil and gas] industry supported 3,211 direct jobs and over \$652 million in labor income in Ventura County" (*emphasis added*). Yet these numbers directly conflict with the uncited statement on page 8-80: "there were 431 employees working in Ventura County [for oil and gas]..." (*emphasis added*). Which of these numbers (if any) is correct and represents the "current conditions" for the project?

The Background Report must contain correct and factual data to support the analysis of impacts in the EIR.

- Example: Conflicting data

Page 2-54 of the Background Report states "Production throughout the state had been declining since the 1980s, as oil reserves in the state have diminished. In recent years, the drilling of oil wells and well stimulation (including hydraulic fracturing), has been reduced in response to current oil prices." And page 8-74 of the Background Report states: "this level of production represents a 42 percent decrease in production from 1987 levels" (*emphasis added*). Yet Appendix D: GHG applies calculations that assume an anticipated future increase of over 1 million barrels of production. Appendix D does not provide references or citations as to what information the County may have that supports an increase in reserves and production.

Page 9-34 of the Background Report states that 85% of all agricultural products are exported out of the County, with 60% being exported to foreign lands. Yet only a few sentences later, the Background Report describes the exportation of Ventura County agricultural products as a "small niche." 85% does not align with either "small" or "niche" and the use of this phrase needs to be corrected or clarified.

- Example: Poor quality information

The maps provided in the EIR and the Background Report are of such small size, low resolution and insufficient detail that they do not provide the reader with the information necessary to evaluate or determine impacts or to determine which parcels or areas may be impacted. In some instances, the maps are blurry and notations on the map are illegible (such as Figure 9-7).

For example, Figure 11-11 is of such poor resolution and detail that it is impossible for the reader to determine where actual urban-wildfire risk interface areas may exist for any parcel or specific area. Figure 11-11 is significantly smaller than 8.5X11 and is of such great scale of distance that the entire County appears bright red and does not provide enough detail for any meaningful analysis of impacts.

- Example: Vague or missing information

The Background Report does not provide any information about Land Conservation Act (LCA) contract trends. Without an understanding of how contract numbers may be

increasing or decreasing, or whether the specific agricultural “use types” (i.e., row crop, orchards, grazing, etc.) of lands under LCA contract has been shifting over time, the Background report lacks the information necessary to evaluate impacts to LCA contracted lands.

Section 4.1:

- Regulatory Setting:

The Regulatory Setting of this section provides a good overview of the lighting restrictions in County’s Zoning Ordinances. However, the EIR does not reference other regulations and regulatory bodies that may affect aesthetic resources or recognize that impacts to aesthetics is not limited solely to lights. This section should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that may affect aesthetics as a whole (for example: State Historic Preservation Programs, Scenic highway and Byway Programs, Homeowners Associations within the unincorporated area, Building Codes, etc.)

- Impact 4.1-3 (Create glare for motorists) and Impact 4.1-4 (Create impacting day or night views)

The EIR does not analyze all applicable and appropriate 2040 General Plan policies for impacts. Policies HAZ-10.5, HAZ-11.7 (solar reflective roofs), HAZ-11.9 (promoting “cool pavement”) and Implementation Program U (Solar Canopies) all have reasonably foreseeable significant impacts that are not disclosed or analyzed in the EIR. The EIR should be updated to analyze the impacts of the whole of the project.

- Proposed mitigation measure AES-1: The EIR does not evaluate the technologic and economic feasibility of this mitigation measure, including whether this mitigation measure would foreseeably create compliance difficulties with policies HAZ-10.5 and HAZ-11.7.

Section 4.2

- The EIR does not disclose or analyze the impacts of the most significant issues facing agriculture in Ventura County: lack of economic sustainability, lack of farmworker housing, increased regulatory demands on normal farming practices, increased competition for water resources, and increased compatibility conflicts with non-ag land uses. This issues all significantly impact the conversion of agricultural land to non-agricultural uses.

The 2040 General Plan will directly and indirectly magnify these issues. Yet the EIR either fails to analyze these issues or dismisses them as “less than significant” without supporting evidence for the determination.

- Regulatory Setting
Neither the EIR nor the Background Report provide any information regarding the recent Hemp Cultivation restrictions imposed by the County. A thorough discussion of all setbacks and restrictions on normal farming practices should be included in the EIR and use in the analysis and determination of impacts.
- Proposed mitigation AG-2:
This mitigation measure is infeasible and must be removed from the EIR.

As the County is already aware, CEQA requires that all mitigation proposed in an EIR be feasible and that feasibility take into account economic, environmental, social, and technological factors. In 2016, Supervisor Linda Parks proposed a mitigation measure at the Local Agency Formation Commission. Supervisor Parks' mitigation measure was identical to AG-2, with one notable exception: she proposed a 1-to-1 replacement requirement and this EIR proposes 2-to-1 replacement. At that meeting, County Counsel, Michael Walker, informed Supervisor Parks that her proposed mitigation measure was economically infeasible and could not be included in an EIR. Mr. Walker cited several court decisions to support his statement, including *Masonite v. Mendocino* and *City of Irvine v. County of Orange*. In *City of Irvine v. County of Orange*, the Court found that the "sheer astronomical expense of land support the finding of the EIR that the purchase of agricultural conservation easements is a non-starter." And the requirements in AG-2 go well beyond what Supervisor Parks had proposed.

Even without the question of economics, mitigation measure AG-2 still does not meet the CEQA standard for feasibility. In the discussion of this mitigation measure, the following information is not included in the EIR:

- Whether there is sufficient land available for purchase/conservation easement for each farmland category;
- Any information that could constitute a "plan" for management of farmland in conservation easements;
- An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with land use compatibility conflicts and increased urban-ag-interface);
- Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and,
- Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

Furthermore, CEQA guidelines require that all mitigation measures proposed in an EIR must be shown to reduce impacts. An infeasible mitigation measure, by definition, cannot and will not reduce impacts.

Mitigation Measure AG-2 must be removed and the EIR revised to propose feasible alternative mitigation measures. CoLAB has proposed several alternative mitigation measures in this letter for you to consider.

- Water Supply

On page 4.2-5, the EIR states "the General Plan would not result in any other changes that due to location and nature would result in conversion of farmland." This statement is refuted only a few sentences later when the EIR acknowledges the impacts of both economic burdens and decrease in water supply for irrigation.

Both the EIR and the Background Report fail to discuss or provide any information regarding projected water demand that will occur as a result of the project. But the EIR admits in the Methodology discussion of this section that a decrease in water supply for irrigation will be an indirect impact of the 2040 General Plan. Reducing water for irrigation will convert agricultural land to non-agricultural uses and cause a loss of topsoil, resulting in addition loss of agricultural land. This reasonably foreseeable indirect impact must be analyzed, and mitigation measures proposed that preserve the ability of agriculture to irrigate agricultural land at sufficient volumes to keep lands in active crop production and protect loss of topsoil from wind erosion.

- Other direct and indirect impacts to agriculture not analyzed in this EIR

- Neither the EIR nor the Background Report provide information regarding estimated and anticipated "buildout" under the 2040 General Plan in terms of acreage, actual location, number of dwelling units, and development density and intensity. As the EIR is anticipated to be completed prior to the County receiving the Regional Housing Needs Allocation number, the EIR simply does not have the data necessary to conduct the analysis required under CEQA to determine either where or what the full extent of potential impact on agricultural lands from increased urban-ag interface.
- The EIR does not analyze impacts from any policies in the 2040 General Plan related to bicycle network expansion. Policies such as CTM-3.3, CTM-3.4, CTM-3.5, CTM-3.6, CTM-3.7, CTM-2.12 and Implementation Program L support the expansion of the County bicycle path network. These policies will result in bicycle paths on or immediately adjacent to agricultural lands.

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of these policies for their direct and indirect impacts on conversion of agricultural land and on establishing non-agricultural uses adjacent to agricultural lands. The EIR must be revised to include this analysis and then recirculated.

Proposed mitigation: Protect agricultural land from direct and indirect impacts (such as physical loss of agricultural land converted to a bicycle path, urban-ag interface encroachment and compatibility conflicts) by establishing setbacks on non-AE zoned

lands that will prohibit the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned AE.

- The EIR does not analyze the direct and indirect impacts of policies that support transportation improvements such as roadway widening on the loss of agricultural land. On page 4.1-28 the EIR states that implementation of the 2040 General Plan will create increased traffic volumes and page 4.3 of the EIR states that the increased traffic will result in "physical changes...necessitated by the 2040 General Plan (e.g., new facilities, infrastructure upgrades").

The Background Report includes the County's buildout plans for future roadway widening and improvements to address the increased traffic caused by the project. These roadway improvements are cited in the section 4.16-1 and referenced in the EIR determination of impacts.

Some of the locations identified for roadway widening and improvements will result in the conversion of agricultural land to non-agricultural uses and the conversion of agricultural land due to the loss of topsoil, particularly in the Victoria and Olivas Park Road areas. Yet the EIR has failed to analyze this significant impact or proposed mitigation to reduce it.

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of policies supporting roadway expansion for their direct and indirect impacts on conversion of agricultural land and on establishing non-agricultural uses adjacent to agricultural lands. The EIR must be revised to include this analysis and then recirculated.

- Page 4.2-13 of the EIR states "[Policy] AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the

potential for conflicts would be minimal. This impact would be less than significant” (emphasis added).

The determination in the EIR is not supported by factual evidence. Both historic and current County actions demonstrate that, contrary to the EIR’s assertion, the County creates new restrictions and ordinances on agriculture and farming operations solely because of “conflicts attributed to residential development.” The recent interim urgency ordinance restricting hemp cultivation is one such example.

In light of the current actions of the County and the Board of Supervisors to place severe setbacks on hemp cultivation and create economic injury to farmers, the EIR’s assertion that the County will utilize the Right to Farm Ordinance to protect agricultural operations from nuisance complaints is unsubstantiated by factual evidence. This determination analysis is flawed. The EIR must conduct a thorough analysis of impacts to agriculture from the increase in nuisance complaints that will arise from implementation of the project.

Proposed mitigation: Strengthen the Right to Farm Ordinance to prevent nuisance complaints from being used as the sole basis to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices.

- The EIR omits any analysis of direct and indirect impacts of economic sustainability on conversion of agricultural lands.

The EIR asserts that there are “existing mechanisms in place to support the preservation of agriculture” and reduce significant impacts to the environment. As stated in the EIR, one of these mechanisms is the Save Open Space and Agricultural Resources (SOAR) initiative. SOAR recognizes that “for agriculture to be sustainable in Ventura County, it must remain economically viable” and mandates that the County “promote the economic viability of agricultural lands by assisting agricultural producers and establishing zoning policies that support long term investment in agriculture” as a method of reducing the conversion of agricultural lands to non-agricultural uses.

Yet no analyses of the impact of Policy AG-5.2 (transition to electric- or renewable-powered equipment) and AG-5.3 (transition to electric- or renewable-powered irrigation pumps) were provided in the EIR. These policies will adversely impact the economic sustainability of agriculture by increasing costs of normal farming operations. Agricultural profitability has a direct impact on the conversion of agricultural lands to non-agricultural uses, as recognized in the EIR’s discussion of LCA contracts. The EIR should analyze the impacts of economic sustainability on the conversion and loss of agricultural land and propose mitigation measures to reduce this impact.

In addition, the EIR does not analyze other impacts from the project that will decrease economic sustainability for agriculture and result in conversion of agricultural lands to non-agricultural uses. The project will cause increased urban-ag interface. It is well acknowledged that as non-agricultural land uses expand, compatibility conflicts with normal farming operations increase (*San Diego County General Plan EIR, Napa County General Plan EIR*). Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and trespass on agricultural lands.

These impacts decrease the economic stability and sustainability, as agricultural operations are subjected to restrictions on normal operations, setbacks and cultivation restrictions, and increased security costs. Agricultural profitability has a direct impact on the conversion of agricultural lands to non-agricultural uses, as recognized in the EIR's discussion of LCA contracts. The EIR should analyze the impacts of economic sustainability on the conversion and loss of agricultural land. The significant impact of conversion of agricultural lands to non-agricultural uses due to profitability is best reduced by mitigation measures that support a network of economic sustainability and stability for local farming. One potential proposed measure is outlined below.

Propose mitigation:

Page 9-3 of the Background Report states that the "current trend is for 'locally' grown" products. The Background Report goes on to acknowledge there are limited opportunities for this in Ventura County due to the lack of processing operations. Agricultural Processing should be a growth industry that supports economic sustainability for agriculture in Ventura County. This can be facilitated by mitigation measures that expand the ability of local growers to build processing facilities, as well as permit more types of processing, such as additives and bottling.

The definition of "pre-processing" in the Non-Coastal Zoning Ordinance must be expanded to create opportunities for long-term economic viability for agriculture. With very minor changes in the NCZO to the term "pre-processing", the County would create more options for bagged and juice box products that would foster more options for field processing of avocados, lemons and strawberries into guacamole, lemonade and purees.

The current total allowable acreage for processing countywide is limited to 12 acres. Increasing the allowable acreage to a minimum of 100 acres would better support the needs for pre-processing in the County.

- Determination of Impact 4.2-3

In the discussion supporting the determination of "less than significant" impacts, the EIR does not rely on data or actual information, but rather in vague descriptors. On page

4.2-19, the EIR states that “these impacts will only occur in a small area. On page 4.2-20, the EIR uses the phrase “most areas.”

The use of vague descriptors like “small” and “most” fail to convey any information about the actual impact. Use of these descriptors (rather than actual data such as acreage and residential density and intensity adjacent to LCA contracted lands) precludes any ability to analyze this impact. By relying on vague and meaningless terms for determination of impacts, the EIR does not actually disclose any information about the impact itself. To meet CEQA standard and guidelines, the actual acreage, location and intensity of urban-ag interface must be evaluated in the EIR to determine both significance of impact and quantification.

Neither the EIR nor the Background Report provide information regarding estimated and anticipated “buildout” under the 2040 General Plan in terms of acreage, actual location, number of dwelling units, and development density and intensity. As the EIR is anticipated to be completed prior to the County receiving the Regional Housing Needs Allocation number, the EIR simply does not have the data necessary to conduct the analysis required under CEQA to determine either where or what the full extent of potential impact on agricultural lands from increased urban-ag interface.

Section 4.5

- The EIR does not analyze either the feasibility of or significant impacts caused by Mitigation Measure CUL-1C on the County’s GHG/Zero Net Energy/Carbon/Energy Efficiency goals. This mitigation measure modifies Implementation Program COS-X to require that all houses constructed in 1970 and earlier must undergo historic evaluation before upgrades can be made. “Upgrades” include modifications required or “encouraged” in the 2040 General Plan, such as the installation of solar panels, reflective roofs, updating windows and doors to more energy efficient models, and potentially wiring and electrical upgrades to support conversion to all electric appliances. In order to meet GHG, zero net carbon, zero net energy, energy efficiency and energy conservation goals and directives in the project, the County must rely on residents to complete these upgrades. But this mitigation measure discourages (and in some cases will effectively prevent) residents from upgrading their homes. The impact of this mitigation measure on the County’s ability to achieve the projects goals, policies and programs must be analyzed.

Section 4.8

- Mitigation Measure GHG-1
Both the EIR and the Background Report fail to disclose and provide any information regarding Ventura County’s existing and on-going energy supply conditions, which include “public safety shutdowns” of large sections of the electrical grid. County residents have suffered through extended electrical power outages that prevented the

use of any electrical appliances (including hot water heaters, HVAC systems, and cooking appliances).

By prohibiting natural gas infrastructure, the County is removing residents' access to non-electric utilities. This will subject Ventura County residents to extended periods without hot water, heat, and the ability to cook food. A thorough and complete analysis of impacts would reveal that this mitigation measure presents a public health and safety risk. While not specifically discussed in the CEQA guidelines, common sense would demand that any mitigation measure that creates or amplifies a public health and safety risk is infeasible.

In addition, the EIR does not analyze the reasonably foreseeable impact of this mitigation measure on increasing GHG emissions. Many residents who will be forced to have only electric appliances will utilize fossil-fuel powered generators to run those appliances during power shutdowns. The surge of generator sales and use related to the California power outages is discussed in depth in the Wall Street Journal, Fox Business, CNBC, LA Times, and the San Francisco Chronicle. While some residents may use solar (battery stored) power, the EIR has provided no information about how many residents are anticipated to convert to solar and this "assumption" cannot be applied in the determination of significance of this impact.

Section 4.9

- Determination of significance for Impact 4.9-1 and Impact 4.9-2

The EIR does not include Policy CTM-6.4 in its impact analysis. Furthermore, neither Policy LU-11.X nor Implementation Program LU-Program X are mentioned or analyzed for impacts anywhere in the EIR. Yet the EIR has determined, without having conducted a complete and thorough analysis of the entire project, that the impact will be less than significant.

As the 2040 General Plan policies do not place any restrictions on or specify what types of alternative energy production shall be allowed, the EIR must analyze any and all reasonably potential production types. This includes those types that require the use and disposal of chemicals. According to the US EPA, common chemicals used in alternative energy production include hydrochloric acid, copper, silicon, and cadmium, among many others— all of which are considered both hazardous materials and hazardous wastes.

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of these policies for their direct and indirect impacts on hazardous materials and hazardous waste risks. The EIR must be revised to include this analysis and then recirculated.

- Impact 4.9-6

The EIR acknowledges that “managing fuel through activities such as vegetation removal and controlled burns, the County and other agencies would be directly reducing the chance of wildfire as well as fuels that would feed wildfires...” (*emphasis added*).

CoLAB agrees with the County’s assertion that the removal of vegetation reduces the impact of wildfire risk. By the same logic, and with no evidence to the contrary in either the EIR or the Background Report, increasing vegetation shall increase the impact of wildfire risk. However, the EIR does not analyze the impacts of policies COS-3.2, COS-1.15, Implementation Program COS-H and Implementation Program COS-C and others which increase fuel load and vegetation that “feed wildfires.”

CEQA demands that the EIR analyze the whole of the project, which necessitates the analysis of these policies for their direct and indirect impacts on wildfire risks. The EIR must be revised to include this analysis and then recirculated.

- The EIR states “...the County shall discourage the building of homes in very high fire severity zones. By discouraging development in these areas, the County seeks to reduce the incidence of wildfire and minimize wildfire effects.” But the County has failed provide information that proves this policy will actually reduce impacts, as required under CEQA. Neither the EIR nor Background Report contain any information this is necessary to determine how - and to what extent - this policy will reduce impacts. The EIR does not provide any analysis or information to determine the County’s anticipated compliance goal for these “encourage/discourage” policies. Without such data, the EIR does not provide evidence that the policies will indeed reduce impacts.
- The Background Report provides data on the locations and potential locations of hazardous materials and hazardous wastes in Ventura County (pg. 11-68 and 69) But this information is never applied in the EIR analysis for impacts 4.9-1, 2, and 3. There is no discussion, description of locations, or map evaluating potential areas of development under the Land Use designations in the 2040 General Plan against the known locations of hazardous materials and hazardous wastes. Yet, the EIR has determined, without actually conducting such an analysis, that impacts will be less than significant.

This impact determination is premature. The EIR must analyze the potential “buildout” under the Land Use Designations in the 2040 General Plan against the known locations of hazardous materials and waste.

Section 4.10

The EIR does not evaluate the impacts of Land Use Designations and policies that will force planned growth into existing Industrial and Commercial lands on their exposure to flood hazards (Impact 4.10-13).

The Background Report contains an erroneous map that misrepresents the potential overlap of Industrial and Commercially designated areas with designated flood hazard areas. The area delineated as “floodplain” in Figure 3-7 does not correlate with Ventura County GIS data. Ventura County GIS data provides information that supports the determination that the policies in the 2040 General Plan will create a significant impact, as there are industrial and commercial parcels within the flood hazard zone. CoLAB has attached both Figure 3-7 and a map (Figure A) from the County View’s website, created with the County’s GIS data for comparison.

Section 4.11

The EIR does not analyze policies in the 2040 General Plan that will require solar installation, reflective roofs, and other improvements in their analysis for Impact 4.11-1. As Ventura County has many neighborhoods and residential areas with distinct architectural styles, these policies will have a significant impact on compatibility with existing architectural form and style and must be analyzed.

Section 4.12

- Page 4.12-11 and 12: CEQA intends for this impact analysis is to determine and quantify the impact of the project on the ability to access reserves. Yet this section primarily evaluates the perceived impact of oil and gas production on local populations. While we support the County’s willingness to conduct supplemental impact analysis in the EIR, the County still has an obligation under CEQA to conduct the actual analysis required. The County’s analysis of Impact 4.12-3 does not meet the intent and standard of review under CEQA. The EIR must be revised to include the CEQA required analysis, which is whether the allowable buildout and other policies in the 2040 General Plan will hamper access to reserves.

- Regulatory setting

Both the Background Report and the EIR do not contain a complete and thorough overview and summary of the regulatory setting applicable to this section. Several agencies, regulations and ordinances have been excluded from this section of the EIR, such as CalGEM, CalOSHA, California Highway Patrol, Ventura County Environmental Health, California Department of Fish and Wildlife, US Coast Guard, US EPA, Regional Water Quality Control Board, State Water Resources Board, and many others.

This section should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that may affect mineral and petroleum resources.

- The EIR states that the Area Plans were “reviewed for policies and implementation programs specific to these areas that would potentially have impacts on the environment with respect to mineral and petroleum resources” and that “the 2040

General Plan would not result in substantive changes to Area Plan policies and implementation programs related to mineral and petroleum resources.” This statement is unsupported and erroneous, as the North Avenue Area Plan has several policies that would be impacted by the General Plan, including (but not limited to):

- pg. 5 where the applicability of land use designations to oilfield activities is discussed and evaluated;
- pg. 9-10 and Appendix G which discuss the relation of transportation improvements and bike path expansion on the oilfield activities;
- pg. 11 which analyzes oilfield activities on the "general character" of the area; and so on...).

Contrary to the assertion in the EIR, the policies in the 2040 General Plan would have a significant impact on the North Ventura Avenue Area Plan and the EIR must include the Area Plans in the impact analysis.

- On page 4.12-9, the EIR states that Land Use Designation changes would result in potential changes to surrounding land uses near oil reserves. But the EIR does not quantify this impact. Neither the EIR nor the Background Report provide information regarding estimated and anticipated “buildout” in terms of acreage, actual location, number of dwelling units, and development density and intensity. As the EIR is anticipated to be completed prior to the County receiving the Regional Housing Needs Allocation number, the EIR simply does not have the data necessary to conduct the analysis required under CEQA to determine either where or what the full extent of potential impact on lands adjacent to or overlaying mineral reserves.
- The EIR provides only a vague description of the Land Use Designations that will exist under the 2040 General Plan, and vague statements of “buildout” allowing “relatively higher intensity” residential, commercial and industrial land uses. Neither the EIR nor the Background Report provide information regarding estimated and anticipated “buildout” in terms of acreage, actual location, number of dwelling units, and development density and intensity. The EIR contains no information regarding the amount, timing, and final anticipated buildout under the 2040 General Plan. While the lack of information may be due to the EIR being completed prior to the issuance of Regional Housing Needs Allocation numbers from the State, such vague and meaningless information does not meet the CEQA standard for analysis and determination of impacts.
- The EIR also has not analyzed or determined the indirect impacts on access to reserves. As residential and urban densities increase near or adjacent to mineral reserves, urban-mineral development compatibility conflicts increase. Reasonably foreseeable indirect impacts include nuisance complaints, theft, vandalism and attempted trespass on lands overlaying reserves.

As these conflicts increase, the County has historically placed restrictions and setbacks on lands overlaying reserves (for example, policies in the 2040 General Plan to expand existing setbacks on lands overlaying reserves). As the resulting setbacks and restrictions will hamper access to reserves and resources, the indirect impacts caused by the Land Use Designations in the 2040 General Plan must be evaluated and mitigation to reduce impacts must be considered.

Section 4.13

- Proposed Mitigation Measure NOI-1 recommends the creation of Policy HAZ-X which will require the installation of noise control measures, which “may include vegetation.” The EIR does not analyze the significant impact of this mitigation measure on Impact 4.9-6 (wildfire risk).

Vegetative noise reduction buffers are well-studied, and many reputable experts have developed planting and vegetation density guidelines that must be followed to actually create a measurable reduction in traffic noise. Unfortunately, these vegetative noise reduction buffers require density and distribution of brush that conflicts with the requirements for vegetation clearance in most Fire Codes. The EIR must evaluate the feasibility of this mitigation measure as written, including whether this mitigation measure conflicts with any existing County regulation or ordinance. This mitigation measure must also be fully analyzed for any and all impacts it will cause (such as increased wildfire risk).

CEQA guidelines provide the legal and administrative standards for all environmental impact analyses. The 2040 General Plan EIR does not meet CEQA standards on many levels. CoLAB sincerely hopes that the County will put forth a good faith effort to address and correct the issues identified not just in our comment letter, but in all comment letters received and will recirculate an EIR that meets all legal standards. Our shared goal is a strong 2040 General Plan that supports Ventura County’s agricultural community, its residents, and long-term economic stability.

Sincerely,



Louise Lampara
Executive Director

Attachment

Figure 3-7: North Ventura Avenue Area Plan (source: Appendix B: Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020)

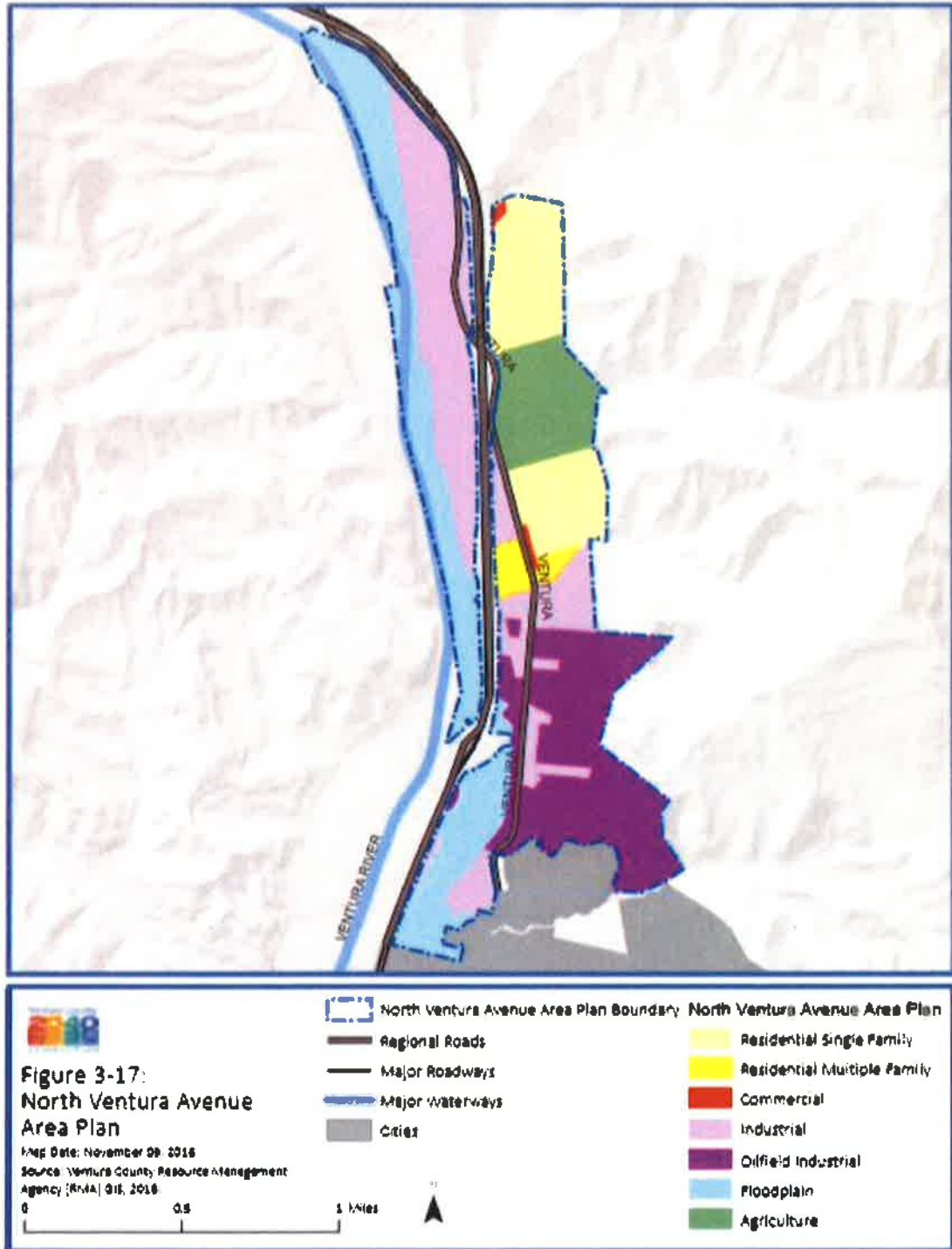
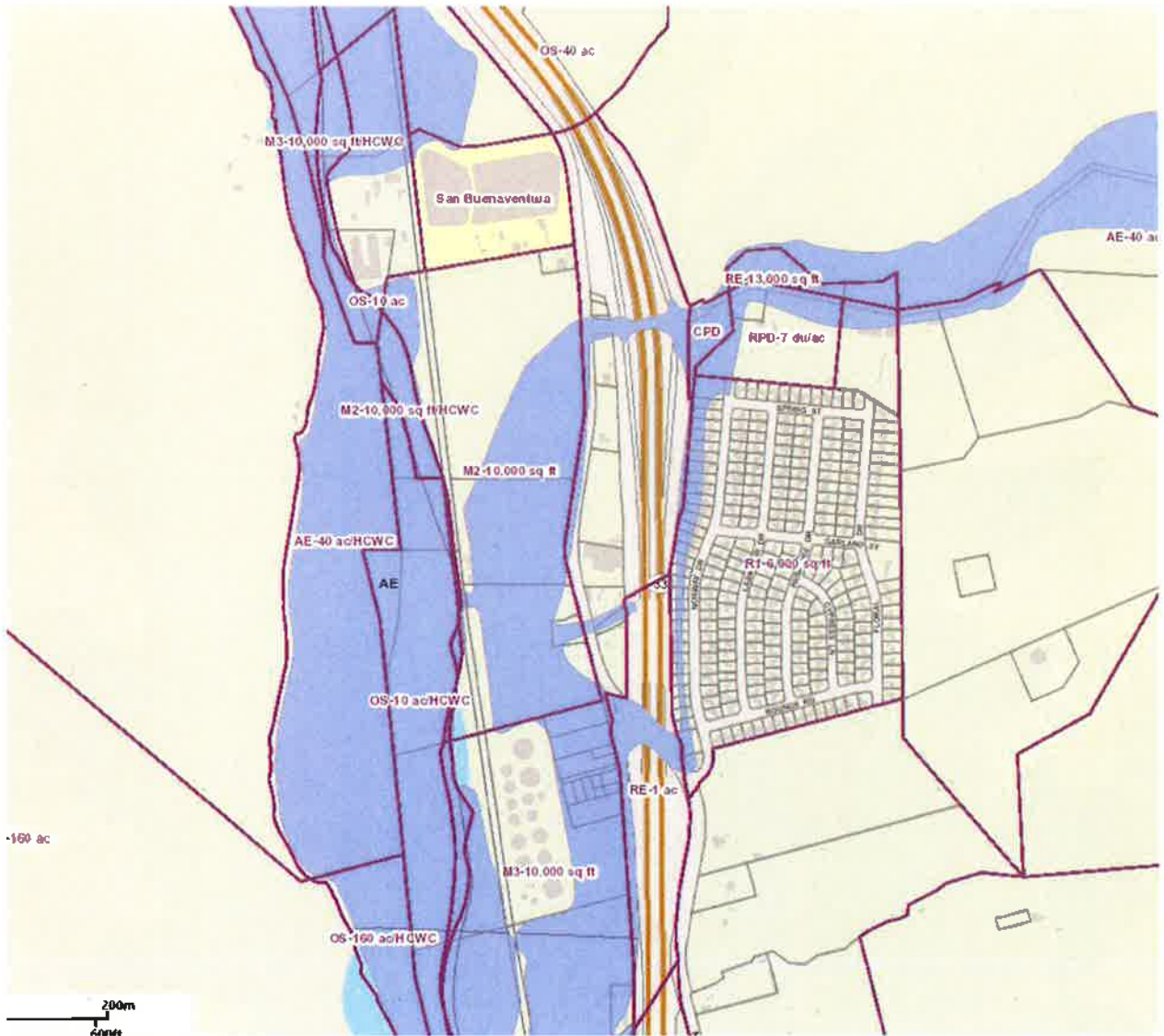


Figure 1: Overlay of flood hazard zones (blue/purple shading) and industrial zoned parcels (as labeled) from Ventura County GIS data (source: <https://maps.ventura.org/countyview/>)



Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 4:03 PM
To: Simmons, Carrie
Subject: FW: GPU EIR Comments
Attachments: GPUEIRCOMMENTS202001.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Phil White <philbranco@gmail.com>
Sent: Wednesday, February 26, 2020 3:54 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; Prillhart, Kim <Kim.Prillhart@ventura.org>; Ward, Dave <Dave.Ward@ventura.org>
Subject: GPU EIR Comments

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Good afternoon Kim, Susan, and Dave,

Attached are my comments on the EIR. Thank you for the opportunity to comment.

Phil White

February 20, 2020

To: Ventura County Planning Department

From: Phil White, Ojai

Subject: Comments on the 2040 GPU EIR

Thank you for the opportunity to comment on the EIR. As a member of the Planning Commission, I have followed closely the development of the General Plan Update for the past three years. I am familiar with the General Plan's contents and attended the public hearings where the policies and programs were discussed and adopted. My comments are mine alone and do not reflect the positions of the Planning Commission.

1. Executive Summary - Page 2-14. "...the net Zero Net Energy Alternative is proposed to address the county's contribution to GHG emissions."

The concept of Zero Net Energy while once at the forefront is now behind the times since it allows continuation of natural gas combustion. The current focus of dealing with Global Warming / Climate Change is an emphasis on Zero Carbon, and if the General Plan has an alternative focusing on building energy use, it needs to be Zero Carbon, not Zero Net Energy. The language needs to be modified to make this change.

2. Executive Summary – Page 2-33 – Impact 4.8-1 – Mitigation Measure GHG-1- Reach Code.

The proposed language talks about prohibiting new natural gas infrastructure in new residential construction. In fact, Program COS-S is not limited to new residential construction, nor are the underlying policies COS-8.6 and 8.7. While reach codes will logically apply first to new construction, there needs to be planning under this program to extend to eventual retrofits of existing buildings of all types. The language needs to be modified to add this comprehensive planning.

3. Executive Summary – Page 2-34 – Impact 4.8-1 – Mitigation Measure GHG-2

The proposed language deals with energy savings, and while that is commendable, a comprehensive plan dealing with Global Warming / Climate Change needs to emphasize reducing carbon emissions. Also, the proposed language covers buildings of 25,000 square feet or more and doesn't include discussion of non-building sources of GHG. This is short-sighted. Since dealing with the Climate Emergency requires a comprehensive approach, the program needs to cover buildings and other sources regardless of size. The language needs to be modified to add these points.

4. Executive Summary – Page 2-35 and 36 – 4.8-1 – Mitigation Measure GHG-3

I concur that the General Plan should not include tiering and streamlining. The uncertainty of the incomplete GHG emission inventory alone dictates that tiering and streamlining don't make sense.

5. Executive Summary – Page 2-35 – Mitigation Measure GHG-4

I concur that the proposed program makes sense. However, it must be acknowledged that the Climate Emergency Council will likely come up with more than 52 policies for addressing GHG reductions. For example, a recent LA Times report documents the enormous number of abandoned oil and gas wells in the State and in Ventura County. These abandoned wells are sources of methane leaks which contribute to Global Warming / Climate Change. This is an example of a new policy area that is likely needed to address the County's contributions to Climate Change. The language in GHG-4 needs to be modified to add that point and create that flexibility.

6. Executive Summary – Page 2-39 – Mitigation Measure PR-1

The proposed language, purportedly implementing adopted policy COS-7.2, deals with setbacks from oil and gas wells to sensitive receptors including residences and schools. While I concur with the addition of added language covering childcare facilities, hospitals, and health clinics, I am very bothered to see the proposed language removing the 2500 foot criterion adopted by the Board of Supervisors in September. I think it is outrageous for staff and the consultant to use the EIR process to try to undo specific policies adopted by the Board of Supervisors in public hearings. The already adopted 2500 foot limit needs to be reinstated.

7. Biological Resources – Pages 4.4-14 – 17

Several important adopted policies affecting biological resources are omitted from this section. Policy WR-7.1 Water for the Environment, Policy PFS-6.6 Natural Drainage Courses, and Policy PFS-6.7 Flood Control and Beach Sand Nourishment each make important contributions to protecting biological resources. This section needs to be modified to include them.

8. Mineral and Petroleum Resources – Chapter 4.12

In adopting policies in the General Plan, the Planning Commission and the Board of Supervisors considered balancing the development and conservation of oil and gas resources with economic, health, safety, social and environmental protection values.

For example, the oil and gas industry is a large source of air pollution and greenhouse gas emissions and it is a source of health issues, water contamination, and environmental injustice. Reasonable limitations imposed on oil and gas development to reduce these impacts were considered in the development of the General Plan and the Board of Supervisors adopted a number of policies intended to reduce these impacts while still allowing responsible development.

The text in this chapter has been written with a strong emphasis on protecting the extraction of petroleum resources while downplaying the consequent air pollution, climate change, water contamination, health impacts, and environmental injustice. This bias needs to be eliminated in the EIR. The EIR should reflect the balanced intent of the policies adopted by the Board of Supervisors.

9. Mineral and Petroleum Resources – Page 4.12-31 – Mitigation Measures PR-2 and PR-3

The Board of Supervisors in September approved adoption of Policies COS-7.7 and COS-7.8 to reduce the impacts of new oil and gas development on air pollution, greenhouse gas emissions, environmental justice, and other health and safety concerns. Those two policies were designed to balance the responsible development and conservation of oil and gas resources with the need to reduce the environmental, health, and social impacts of that development.

I was very disturbed to see that County staff and their consultant have, by proposing Mitigation Measures PR-2 and PR-3, attempted to effectively undo and cancel the policies adopted by the Board. I think it is outrageous for staff and the consultant to use the EIR process to try to undo specific policies adopted by the Board of Supervisors in public hearings. Proposed Mitigation Measures PR-2 and PR-3 need to be rejected and the original Policies COS-7.7 and COS-7.8 reinstated.

10. Appendix D – GHG Calculations

Ventura County is faced with developing a Climate Action Plan to accomplish its fair share of reducing greenhouse gases to meet State and International targets. The first step in developing the plan is to accurately summarize the existing emissions of greenhouses gases; particularly carbon dioxide and methane. What is presented in Appendix D does not do that.

During the public hearings on the General Plan before the Planning Commission and the Board of Supervisors, it was repeatedly pointed out that the County's consultant had failed to accurately prepare an inventory of greenhouse gas emissions. The inventory in the EIR still does not do so. Two examples of deficiencies are the failure to calculate emissions from large industrial sources, and the failure to address the realistic global warming potential of methane.

Whether it is done as part of the EIR or not, the County will need an accurate GHG emissions inventory. I suggest hiring the Ventura County APCD to prepare it.

Thank you for the opportunity to present comments on the EIR. I sincerely hope my comments are useful.

Phil White

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 3:49 PM
To: Simmons, Carrie
Subject: FW: Climate change has environmental impacts!

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Robin Munson <info@email.actionnetwork.org>
Sent: Wednesday, February 26, 2020 3:23 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Robin Munson

robin.munson@gmail.com

1405 Donegal Way

Oxnard, California 93035

Simmons, Carrie

From: Curtis, Susan
Sent: Wednesday, February 26, 2020 3:44 PM
To: Simmons, Carrie
Subject: FW: General Plan / EIR Comments

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcрма.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



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From: Bob & Anna Chambers <lacostachambers@gmail.com>
Sent: Wednesday, February 26, 2020 1:44 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan / EIR Comments

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

Simmons, Carrie

From: gmnn33a@prodigy.net
Sent: Wednesday, February 26, 2020 3:51 PM
To: General Plan Update
Subject: Re: General Plan Update Draft EIR Comments
Attachments: RO DEIR Letter Draft (1).pdf

Follow Up Flag: Follow up
Flag Status: Flagged

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Dear Ms. Curtis:

Please find attached my letter concerning the above.

Thank you,

Dennis Reynolds
Royalty Owner
gmnn33a@prodigy.net

February 25, 2020

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, California 93009

via email: GeneralPlanUpdate@ventura.org

Re: General Plan Update Draft Environmental Impact Report Comments

Dear Ms. Curtis,

We are royalty owners who have lived in Ventura County for 71 years. We support continued local oil and natural gas production. Royalty and mineral rights owners have a legally vested interest in mineral rights. We have many concerns regarding the economic impact of the Draft Environmental Impact Report (DEIR).

Upon further review of the DEIR, we believe that the document has a bias against local oil and gas producers. COS-7.2 mandates a 2,500-foot setback for oil and gas wells in the unincorporated areas of the County. This arbitrary setback does little to safeguard public health and safety. It does however lead to an unavoidable shutdown of many existing oil operations. The DEIR itself states that, "There are no actions or policies that the County could feasibly mandate to fully reduce the impact that Policy COS 7.2 would have on hampering or precluding access to petroleum resources. This impact would remain significant and unavoidable". It is of concern to us that this new policy would leave the County vulnerable to millions of dollars in lawsuits if passed.

The DEIR neglects to accurately assess the financial impact of setbacks on the County. The DEIR cites Assembly Bill 345 to support the new setback policy. This is inappropriate given that AB 345 is stalled in the state legislature last year. The legislature's analysis of AB 345 estimated a loss of up to \$3.5 billion in revenue from reserves in the setback zone, and that the bill was so draconian that it would likely lead to lawsuits. It is not the policy Ventura County should be looking to model.

The City of Los Angeles Department of Public Works Office of Petroleum and Natural Gas Administration recently published a report that concluded: "The estimated potential cost to the City of establishing a setback distance on existing operations is \$724 million, which includes the minimum value of the current oil production, land value costs, well abandonment costs, environmental clean-up costs and five years of litigation expenses." Future operations subject to setback policies could be as high as \$97.6 billion in compensation for the future value of mineral rights owed from takings litigation.

The DEIR does not consider minimum value of the current oil production, land value costs, well abandonment costs, environmental clean-up costs and five years of litigation expenses like the City of Los Angeles Department of Public Works Office of Petroleum and Natural Gas Administration report. The true cost of setbacks is missing from this DEIR.

Any effort to infringe upon legally vested rights is concerning. We believe local energy production contributes to a vibrant economy and provides an affordable reliable energy source for the state. Ventura County is lucky to have this natural resource. The DEIR should be revised and recirculated to accurately reflect oil and gas revenue as it pertains to mineral rights owners.

Sincerely,

Dennis Reynolds

Dennis Reynolds
Royalty Owner

P.O. Box 1776
Camarillo CA 93011

Simmons, Carrie

From: Niz, Kim <Kim.Niz@alston.com>
Sent: Wednesday, February 26, 2020 3:53 PM
To: General Plan Update
Cc: Wickersham, Matt
Subject: Comments on Ventura County 2040 General Plan Draft Environmental Report (State Clearinghouse No. #2019011026)
Attachments: 2020-02-26 Ltr. to VCRMA Susan Curtis from M. Wickersham Re Ventura.pdf
Follow Up Flag: Follow up
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SENT ON BEHALF OF MATTHEW C. WICKERSHAM:

Kim S. Niz
Legal Administrative Assistant
ALSTON & BIRD
333 South Hope Street
Los Angeles, CA 90071
213-576-1096 (O)
Kim.Niz@alston.com

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ALSTON & BIRD

333 South Hope Street, 16th Floor
Los Angeles, CA 90071-1410
213-576-1000 | Fax: 213-576-1100

VIA ELECTRONIC MAIL AND UPS

February 26, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740
GeneralPlanUpdate@ventura.org

Re: Comments on Ventura County 2040 General Plan Draft Environmental Report
(State Clearinghouse No. #2019011026)

Dear Ms. Curtis,

California Resources Corporation joins in the comments submitted by Western States Petroleum Association on the Draft Environmental Impact Report for the Ventura County 2040 General Plan ("DEIR"). CRC requests that the DEIR be significantly revised and recirculated, as required by the California Environmental Quality Act, to address the deficiencies raised by these comments.

Sincerely,



Matthew C. Wickersham

Simmons, Carrie

From: Ben Oakley <boakley@wspa.org>
Sent: Wednesday, February 26, 2020 4:19 PM
To: General Plan Update
Cc: Curtis, Susan; Ward, Dave; Prillhart, Kim; Ben Oakley
Subject: Ventura County GPU DEIR - WSPA Comment Letter
Attachments: VC GPU DEIR Comment Letter - WSPA 2-27-20.pdf

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To Whom It May Concern:

Please see the attached comment letter on the Ventura County General Plan Update Draft Environmental Impact Report. Please acknowledge receipt of this transmittal at your earliest convenience.

Regards,

Ben Oakley
Manager, California Coastal Region



C 805.714.6973
boakley@wspa.org



Ben Oakley
California Coastal Region Manager

February 27, 2020

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, California 93009

via email: GeneralPlanUpdate@ventura.org

Re: General Plan Update Draft Environmental Impact Report Comments

Dear Ms. Curtis,

The Western States Petroleum Association (WSPA) is a non-profit trade association that represents companies, including oil and gas producers in Ventura County, that account for the bulk of petroleum exploration, production, refining, transportation and marketing in the five western states of Arizona, California, Nevada, Oregon, and Washington. WSPA is dedicated to ensuring that Americans continue to have reliable access to petroleum products through policies that are socially, economically, and environmentally responsible. We deliver reliable and safe products that sustain our way of life and drive economic opportunity.

WSPA appreciates this opportunity to continue our engagement in the Ventura County General Plan Update (GPU) process in support of policies that will create the most sustainable energy future for our community, region, and nation. To that end, we have reviewed the GPU Draft Environmental Impact Report (DEIR) and have the following comments:

GENERAL COMMENTS

WSPA is concerned about the adequacy of the DEIR to properly inform the public, responsible officials, and governmental agencies of the potential environmental impacts of the Ventura County GPU. According to case law, the EIR is at “the heart of the California Environmental Quality Act” (CEQA) (*County of Inyo v. Yorty*, 32 Cal.App.3d 795 (California Court of Appeal for the Third District 1973-06-05)). Preparation of an adequate EIR is necessary “not only to protect the environment but also to demonstrate to the public that it is being protected.” (CEQA Guidelines § 15003(b)).

The DEIR fails to serve this essential purpose because:

- The Project Description is vague, unclear, and lacks any meaningful details
- The alternatives analysis is fundamentally flawed and misleading.
- Various identified General Plan policies are infeasible or preempted.
- The summary description of “areas of known controversy” is biased.

- The DEIR identifies climate change as a “key area of concern” but makes a fundamentally flawed and misleading GHG emissions forecast which serves as the primary driver for various associated policies.
- Information that forms the cornerstone of the various analyses is missing and/or buried in a 1,000+ page appendix.
- The DEIR fails to fully analyze the environmental impacts of various proposed policies and/or is unclear what assumptions are being applied in the environmental analyses.
- The DEIR uses prejudicial language and features a pervasive bias against Ventura County oil and gas producers throughout but offers scant or misleading evidence to justify this position.
- The DEIR features targets and policies that are not based on substantial evidence and violate CEQA case law.
- Preparation of a Final EIR without incorporating the February 2020 release of Regional Housing Needs Assessment (RHNA) requirements will result in improper piecemealing and project segmentation.
- Several proposed policies amount to unconstitutional property rights violations.

The correction of these and other deficiencies discussed below will result in “significant new information” being added to the EIR and will require recirculation (CEQA Guidelines § 15088.5) because numerous sections of the DEIR are so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

Please see below for specific comments on the various DEIR sections in support of our general comments:

INTRODUCTION

- 1. Areas of Known Controversy (page1-4) – Biased description of “areas of known controversy.”**
The DEIR states that the key areas of concern identified during the Notice of Preparation (NOP) process “focused on two primary areas of concern: (1) climate change and greenhouse gases; and (2) the effects of continued oil and gas extraction...” But of the comments included in Appendix A, less than half focused on these issues exclusively. The summary also ignores comments regarding property rights, density, air quality, cultural, hydrology, and hazards which were also brought up in just as many letters as issues relating to oil and gas. Because the “areas of known controversy” section informs and drives the policies and narrative in every subsection of the DEIR, this bias permeates the entire document as will be discussed further below.

EXECUTIVE SUMMARY

- 2. Growth Projections (page 2-11) – The conservative growth projections presented in Table 2-3 will be at odds with the pending RHNA allocations** and as a result much of the amendment will be out of date in October when the final allocations are made. Please see Comment 4 below for further discussion on this topic.

PROJECT DESCRIPTION

- 3. Guiding Principles (page 3-4): Protecting the economic vitality of Ventura County is**

paramount. “Economic vitality” is the second principle referenced in the Vision Statement after quality of life. All proposed policies should be reviewed carefully with regards to the potential negative impact on Economic Vitality to ensure this core principle is not threatened.

In support of this principle, the Background Report should accurately reflect the positive economic value the oil and gas industry has on Ventura County through accurate employment statistics as well as an expanded review of its economic contributions.

On page 8-80, the Background Report states, “According to the U.S. Census Bureau, there were 431 employees working in Ventura County for the oil and gas extraction establishment in 2014.” The number of employees in the sector was presumably determined by searching the U.S. Census Bureau database by county and by the following North American Industry Classification System (NAICS) codes:

- 2111 – Oil and Gas Extraction
- 211120 – Crude Petroleum Extraction
- 211130 – Natural Gas Extraction

However, such a method will result in a dramatic underestimate of oil and gas sector employment. A more recent and publicly available study titled “Economic and Tax Revenue Impacts of Oil Production in Ventura County” prepared by Capital Matrix Consulting in late 2017 (see Attachment 1) indicates the Ventura County oil and gas industry:

- Has 900 workers directly employed
 - Direct and indirect employment is expected to be between 2,100 and 3,000 by 2023
- Provided \$760 million in economic output in 2018
- Provided \$56 million in state and local taxes, of which:
 - \$21 million goes to local jurisdictions within Ventura County supporting schools, and public safety agencies.

The Background Report should be revised to more accurately reflect the significant positive economic impact the oil and gas industry has in Ventura County, and pursuant to CEQA Guidelines § 15131(c), this information should help guide the lead agency’s determination whether policies proposed in the GPU are “feasible.”

- 4. Housing Element (page 3-7) – Preparing an EIR for the GPU before the Housing Element is completed results in improper piecemealing and project segmentation:** The DEIR states that draft RHNA numbers will be released in February 2020, which is during the public review period for the DEIR. Accommodation of the County’s RHNA could lead to the re-designation of one or several parcels within the County, or the revision/deletion/addition of general plan goals and policies. Therefore, it should be considered as part of this project and analyzed in this DEIR.

Yet the DEIR explains that the RHNA component of the project will be addressed as part of the Housing Element that will occur subsequent to the adoption of the 2040 General Plan. In fact, on page 3-6, the DEIR even expressly explains that the GPU and the RHNA/Housing Element (HE) are two parts of the same land use “alternative” identified through the community

outreach for this GPU. Separating the GPU from the RHNA/HE results in an incomplete and inaccurate project description. Had the GPU and the RHNA/HE been analyzed together, the analysis might show that certain aspects of the GPU are infeasible or will have greater impacts than are described in this DEIR. Excluding half of the project from analysis in this DEIR is a both a procedural and a substantive error (*Bozung v. Local Agency Formation Commission* (1975) 13 Cal. 3d 263).

- 5. General Plan Elements (page 3-10 through 3-12) – Project Description lacks any meaningful details:** The “brief summary” provided for each element of the 2040 General Plan, which should provide the basis for the analysis in each DEIR analysis, is completely generic. The descriptions in no way inform a reader of what each element does, or the types of goals, policies, and programs that are established in each. Further there is no summary of what, if anything, is changing in each element, when compared to the existing General Plan. Without this detail, the project description is essentially meaningless.

Even without detailing every single policy included in the GPU, the Project Description should at the very least identify policy highlights and ordinances that the GPU directs the County to draft and adopt, and describe the type and extent of physical development to be constructed under the GPU pursuant to CEQA Guidelines § 15124. Here, there is not even a basic table showing potential buildout (acres, units, square footage, etc. associated with each designation and/or geographical area) or comparing existing against projected development.

Further, there is no mention of the County’s Local Coastal Program (LCP), and whether there will be revisions to the LCP.

ENVIRONMENTAL IMPACT ANALYSIS

- 6. Approach to Environmental Analysis (page 4-1) – CEQA does not permit an agency to bury required information, that forms the cornerstone of the analysis, in a 1,000+ page appendix:** The DEIR states, “The reader is referred to the Background Report for all other setting information.” Yet the BR is more than 1,000 pages long, not counting any appendices, and is not organized in a way that coincides with the chapters of the DEIR (CEQA Guidelines § 15147).
- 7. Approach to Environmental Analysis (page 4-2) – Unclear what assumptions are being applied in the environmental analyses:** The DEIR states that analysis “is based on buildout of the plan area” but nowhere in the Project Description does it actually identify what buildout would be. The DEIR goes on to say that this is the basis of the analysis “even though buildout is not anticipated to occur within the planning horizon.” So, what is anticipated to occur within the planning horizon? These are key pieces of information that must be disclosed—without doing so a reader has no way to consider whether the environmental analysis conclusions are reasonable.

AGRICULTURE AND FORESTRY RESOURCES

- 8. Implementation Program AG-X (page 4.2-7):** The DEIR should include a feasibility study on Implementation Program AG-X: Establish an Agricultural Conservation Easement. The proposed program begs several unanswered questions: Are there landowners willing to serve as

Agriculture Conservation Easement “banks”? If the 2040 General Plan is implemented as currently written, how many acres of agricultural lands would need to be offset? What is the projected price per acre given the anticipated supply and demand?

The potential impacts of Implementation Program AG-X: Establish an Agricultural Conservation Easement must be analyzed in Section 4.14 Population and Housing since the program will impact the affordability of the housing supply.

AIR QUALITY

- 9. General Plan Policies and Implementation Programs (page 4.3-8) – Several identified General Plan policies are infeasible or preempted:** The air quality analysis seems to rely upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include policies COS-7.1, 7.3, 7.4, 7.7, and 7.8. Taking credit for policies that are more than likely to be either struck down or that are simply infeasible (CEQA Guidelines § 15126.4(a)(1)) results in an erroneous analysis, not based upon substantial evidence.

ENERGY

- 10. Environmental Setting (page 4.6-4) – The environmental setting/environmental baseline narrative is inadequate:** The background report and the DEIR environmental setting do not present a clear, informative picture of what is going on in terms of energy consumption, energy mix and energy efficiency in the County happening now under the current general plan as required pursuant to CEQA Guidelines § 15125. As such it is impossible to judge whether implementation of the 2040 GP will have a beneficial, adverse or neutral impact on energy resources. Also, as previously specified in Comment 6 above, the DEIR should contain all relevant information necessary to inform the public. The agency may not simply refer the reader to a 1,000+ page appendix.

GEOLOGIC HAZARDS

- 11. Policy HAZ-4.1 (page 4.7-3):** Policy HAZ-4.1 conflicts with Policy COS-7.7 Policy HAZ-4.1 should be included in Minerals and Petroleum Resources section impact analysis since it has the potential to “result in the loss of availability of a known petroleum resource that would be of value to the region and residents of the State.”
- 12. Policy HAZ-4.15 (page 4.7-4):** Given the long history of oil and gas production in Ventura County, subsidence evaluation should be limited to those areas with known subsidence issues. Policy HAZ-4.15 should be included in Minerals and Petroleum Resources section impact analysis since it has the “potential to result in the loss of availability of a known petroleum resource that would be of value to the region and residents of the State.”
- 13. Policy P-60.2 (page 4.7-5):** “Cost effective” is a subjective standard, this policy could potentially be over-applied to limit any proposed development. Policy P-60.2 should be included in Minerals and Petroleum Resources section impact analysis since it has the “potential to result in the loss of availability of a known petroleum resource that would be of value to the region and

residents of the State.”

GREENHOUSE GAS EMISSIONS

- 14. Projections (page 4.8-5):** The DEIR should include a narrative explaining the assumptions and methods used for forecasting emissions for each sector included in Table 4.8-2. The reader must reference both Appendix D – GHG Calculations and General Plan Appendix B: Climate Change in order to infer what assumptions were made. Please see Comment 6 for further discussion on the need to have information that forms the cornerstone of the analysis in the DEIR and not in multiple appendices.
- 15. Projections (page 4.8-5):** According to General Plan Appendix B: Climate Change, GHG emissions from the Stationary Source sector (i.e., oil and gas industry) were estimated “by scaling the statewide emissions reported for oil and gas production to the local level using the proportion of oil and gas production in the unincorporated area relative to the statewide total.” This method overestimates GHG emissions from Ventura County because it ignores the Carbon Intensity (CI) values of crude oil available for every source of crude oil supplied to California refineries pursuant to CARB’s Low Carbon Fuel Standard (LCFS) program (<https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/crude-oil.htm>).

Carbon intensity varies depending on a variety of factors including production methods, field properties, fluid properties, production practices, processing practices, land use impacts, and crude oil transport, to name a few. Generally speaking, Ventura County crude oil has low CI values relative to crude oil produced in other California oilfields and global oilfields from which California imports most of the crude oil the state consumes (https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/2018_crude_average_ci_value_final.pdf).

The DEIR should account for relative CI of crude oil when estimating GHG emissions from the oil and gas sector. Please see Comment 19 for further information on relative CI of Ventura County crude oil.

- 16. Projections (page 4.8-5):** **The DEIR presents a fundamentally flawed and misleading GHG emissions forecast which serves as the primary driver for related policies targeting the oil and gas industry.** As discussed in Comment 15 above, emissions from the Stationary Source sector (i.e., oil and gas industry) were estimated “by scaling the statewide emissions reported for oil and gas production to the local level using the proportion of oil and gas production in the unincorporated area relative to the statewide total.” In other words, the forecast emissions are directly proportional to the oil production forecast; the higher the forecast production, the higher the forecast emissions.

However, the “Oil and Gas Production Forecast” found in Appendix D – GHG Calculations inexplicably models increasing production through 2050, from 8.43 million barrels in 2015 to nearly 9.5 million barrels in 2050. Such a production forecast flies in the face of the historic Ventura County oil production data (see Figure 1 – Historic Ventura County Oil Production Trend, source: https://www.conservation.ca.gov/calgem/pubs_stats/annual_reports/Pages/annual_reports.aspx; also see Attachment 2 – Historic Ventura County Production Data 1980 to Present).

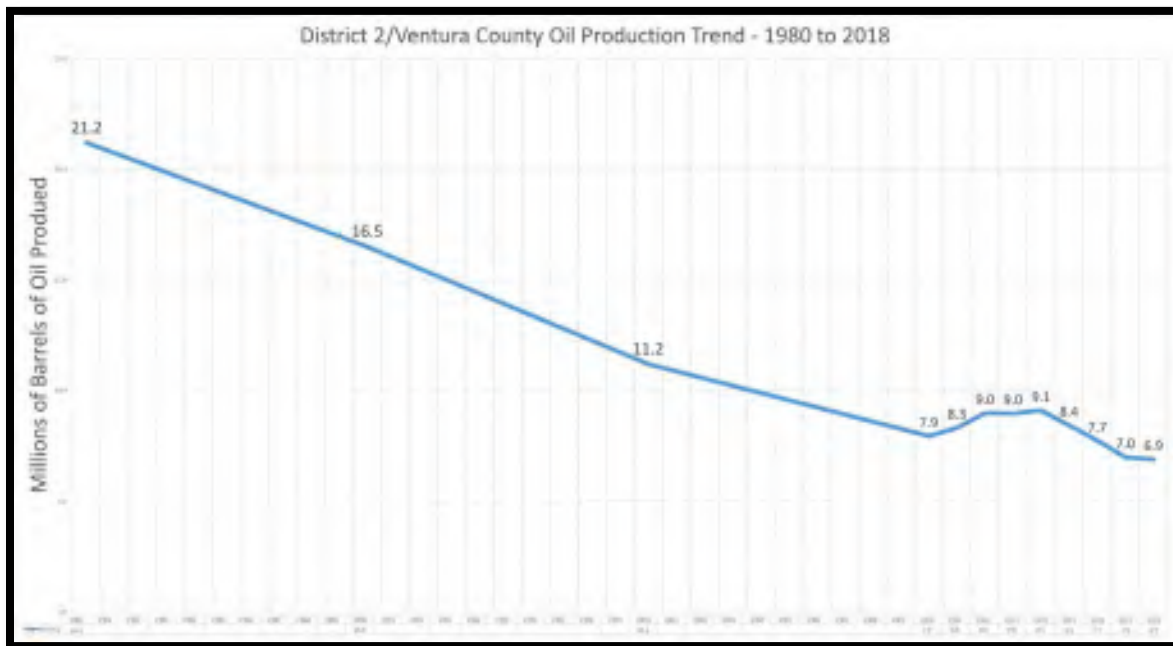


Figure 1 - Historic Ventura County Oil Production Trend

The actual data indicate a steady decline in production looking back 35 years from 2015, which mirrors the forward-looking timeline in the Oil and Gas Production Forecast. This long-term historic trend is recognized in the GPU Background Report section on Petroleum Reserves (page 8-74):

*“In 2015, oil production in Ventura County reached 9,131,781 barrels. This level of production represents a **42 percent decrease in production from 1987 levels**” (emphasis added).*

The Oil and Gas Production Forecast also ignores the latest actual data available from 2015 through 2018, which further reinforce the historic decline trend. Based on the latest production data available in 2018, the DEIR is already on track to overestimate 2020 production by nearly 2 million barrels per year, or roughly 63,000 MT CO₂e assuming 0.0326 MT CO₂e/barrel produced, the ratio utilized in the DEIR calculations for 2015:

$$\text{Scaled Emissions (275,096 MT CO}_2\text{e)} / \text{Ventura County Oil Production (8,428,402 barrels)} = 0.0326 \text{ MT CO}_2\text{e/Barrel}$$

The Stationary Source emission forecast presented in Table 4.8-2 (see Figure 2 below) is not based upon substantial evidence and is inconsistent with the long-term historic trends.

A more realistic Stationary Source emission forecast would be consistent with the long-term decline trend of oil and gas production in the county and would be consistent with every other

Sector forecast in Table 4.8-2, which are projected to either remain flat or decrease between 12% and 36% by 2050. Such a realistic forecast would support a balanced approach to encouraging further GHG emission reductions across all sectors of the County.

| Sector | Forecast Emissions ¹ (MT CO ₂ e) | | | |
|----------------------|--------------------------------------------------------|-----------|-----------|-----------|
| | 2020 | 2030 | 2040 | 2050 |
| Agriculture | 258,223 | 248,882 | 241,541 | 234,200 |
| Building Energy | 308,629 | 285,079 | 225,567 | 197,998 |
| Off Road Equipment | 52 | 52 | 52 | 52 |
| Solid Waste | 302,811 | 278,381 | 270,289 | 262,560 |
| Stationary Source | 287,845 | 314,526 | 343,679 | 375,535 |
| Transportation | 625,263 | 487,058 | 446,355 | 450,232 |
| Water and Wastewater | 13,148 | 13,148 | 13,148 | 13,148 |
| Total | 1,793,971 | 1,627,124 | 1,540,630 | 1,533,723 |

Notes: MT CO₂e = metric tons of carbon dioxide equivalents, comprised of carbon dioxide, methane, and nitrous oxides. ¹Includes legislative reductions from State and federal programs.
Source: Ascent Environmental, 2019

Figure 2 – DEIR Table 4.8-2 Forecast GHG Emissions 2020 to 2050

Instead, the DEIR incorrectly singles out the oil and gas industry as the only sector expected to see increasing GHG emissions through 2050 by a whopping 30%. This glaring disparity in forecast emissions from the oil and gas industry forms the basis for the various GHG reduction policies that aggressively target Ventura County’s oil and gas industry including COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax.

In preparing the Forecast GHG Emissions for Unincorporated Ventura County, the County did not “use its best efforts to find out and disclose all that it reasonably can” in accordance with CEQA Guidelines § 15144 on forecasting since it didn’t even consider data that the County itself had compiled in the Background Report or oil production information available at the same source the County used to collect the 2015 baseline data.

The Forecast GHG Emissions for Unincorporated Ventura County must be revised to appropriately reflect the long term trend of declining emissions in the oil and gas sector, and policies that target the oil and gas industry based on the false premise of increasing GHG emissions in the sector must be removed from consideration in the EIR.

This revision alone constitutes “significant new information” that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5 considering climate change and greenhouse gases were identified by the DEIR as “key areas of concern” in the Areas of Known Controversy section (page 1-4). The GHG section of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

17. Targets (page 4.8-6) – DEIR targets are not based on substantial evidence and violate CEQA case law: The DEIR explains that the Climate Action Plan (CAP) developed as part of the General

Plan applies the same targets to Ventura County as the State has adopted for all of California. This approach wholly ignores regional differences, which is an approach to local CAPs that courts have struck down in myriad cases. Courts have explained that local reduction goals cannot be based on statewide metrics and instead must explain why applying statewide data and reduction targets is appropriate for setting the metrics in the local region (here, Ventura County). (*Center for Biological Diversity v. Cal. Dept. of Fish & Wildlife* (“Newhall Ranch”) (2015) 62 Cal.4th 204). Here, there is absolutely no substantial evidence supporting the application of the 40% and 80% statewide targets to Ventura County.

18. General Plan Policies and Implementation Programs (page 4.8-11 through 4.8-37) – Several identified General Plan policies are infeasible or preempted: The GHG analysis relies upon several policies that are likely preempted by state or federal law, violate existing private property rights, or are simply infeasible. These include policies COS-7.2, 7.4, and 7.7, and implementation program M (oil and gas operations tax). Taking credit for policies that are more than likely to be either struck down or that are simply infeasible results in an erroneous analysis, not based upon substantial evidence.

19. Policy COS-7.2 (page 4.8-23) – The DEIR assumes Policy COS-7.2 will result in lower GHG emissions but provides no evidence to justify this assumption: In section 4.12, the DEIR comes to the correct conclusion that as a result of the proposed policies “the demand for California-produced oil and gas would be satisfied through the importation of additional oil and gas from other countries and Alaska, which in turn could have indirect environmental impacts such as those associated with transporting the oil and gas from outside of Ventura County.” After making this conclusion, the DEIR makes no further attempt to analyze the environmental impact of the proposed policy since the impacts would “largely occur outside of the 2040 General Plan project area.”

This is not a legitimate justification to avoid analyzing the environmental impacts of the proposed policy on climate change since this impact is inherently global in scope as the DEIR itself acknowledges in Cumulative Impacts section 5.2.8 (page 5-11):

“Climate change is an inherently cumulative issue and relates to development in the region, California, and, most of all, the world. Therefore, the impacts discussed in Section 4.8, “Greenhouse Gas Emissions,” are also the cumulative effects of implementation of future development under the 2040 General Plan.”

The DEIR must analyze the impact of Policy COS-7.2 in accordance with the appropriate global geographic scope of the Greenhouse Gas and Climate Change environmental issue area. Furthermore, in accordance with CEQA Guidelines § 15146, the “degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described.” In the case of Policy COS-7.2, the DEIR proposes a policy with a high degree of specificity, while offering an analysis that falls far short of the CEQA standard. This analysis does not exemplify a lead agency’s “best efforts to find out and disclose all that it reasonably can” (CEQA Guidelines § 15144).

The “indirect impacts...associated with transporting the oil and gas from outside of Ventura

County” are quantified for each source of crude oil to California refineries and published by CARB pursuant to the LCFS Crude Oil Life Cycle Assessment program as CI values (<https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/crude-oil.htm>).

The volume weighted average CI of Ventura County crude oil for 2018, the latest data available, is 4.41 grams CO₂e/MJ, which is much lower than the California state average of 12.35 grams CO₂e/MJ (see Table -1 below; also see Attachment 3 for 2018 CI data as reported by CARB):

| Ventura County Field | CI (g/MJ) | 2018 Production (Barrels) |
|-----------------------------------------------|--------------|---------------------------|
| Bardsdale | 3.47 | 149,900 |
| Big Mountain | 4.65 | 17,665 |
| Holser | 3.80 | 14,162 |
| Montalvo, West | 2.65 | 280,077 |
| Oak Park | 3.01 | 9,969 |
| Oakridge | 3.46 | 99,675 |
| Ojai | 4.94 | 245,226 |
| Oxnard | 5.39 | 360,708 |
| Ramona | 4.47 | 30,465 |
| Rincon | 4.88 | 235,485 |
| San Miguelito | 5.25 | 330,190 |
| Santa Clara Avenue | 3.53 | 32,746 |
| Santa Susana | 5.29 | 7,167 |
| Saticoy | 3.68 | 34,314 |
| Sespe | 3.98 | 335,009 |
| Shiells Canyon | 5.07 | 50,589 |
| South Mountain | 3.58 | 452,341 |
| Tapo Canyon, South | 3.08 | 7,563 |
| Temescal | 3.40 | 53,416 |
| Timber Canyon | 4.74 | 16,513 |
| Torrey Canyon | 3.52 | 77,568 |
| Ventura | 4.54 | 4,038,762 |
| West Mountain | 3.53 | 12,718 |
| Ventura County Volume Weighted Average | 4.41 | |
| California Volume Weighted Average | 12.35 | |

Figure 3 - Ventura vs. California Volume Weighted Average CI Values

Given that California’s demand for crude oil far exceeds its in-state supply (source: <https://www.eia.gov/state/analysis.php?sid=CA>), any curtailment of Ventura County crude oil production through the implementation of Policies COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax will likely be replaced by crude oil with much higher CI values, closer to the California Volume Weighted Average CI. Proposed Policies COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax will actually result in increased global GHG emissions.

The GHG section of the DEIR must be revised to include the potential negative impacts of Policies COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax on climate change with proposed appropriate mitigation measures for these impacts. Alternatively, the County may recognize that these policies do more harm than good to our climate and remove them from consideration in the EIR.

Indeed, other lead agencies have included such analyses of relative CI values of crude supplies (Santa Barbara County, February 2019, ERG West Cat Canyon Revitalization Plan Final Environmental Impact Report <http://countyofsb.org/plndev/projects/energy/ERGWestCC.sbc>) as published pursuant to CARB's LCFS program

This revision alone constitutes "significant new information" that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5 considering climate change and greenhouse gases were identified by the DEIR as "key areas of concern" in the Areas of Known Controversy section (page 1-4). The GHG section of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

- 20. Policy COS-7.4 (page 4.8-23) – Policy COS-7.4 is not based on substantial evidence:** In mandating electrically powered equipment for oil and gas exploration and production, the DEIR appears to target the oil and gas industry when compared to policies aimed at other industries.

The mandatory language in Policy COS-7.4 stands in stark contrast to similar agriculture and construction-related policies which merely "encourage and support the transition to electric, renewable, or lower emission equipment" (Policy AG-5.2 and 5.3) or "encourage the use of high-efficiency internal combustion engines or electric-powered equipment." (page 4.6-17 and 19).

Emissions from mobile equipment are the same whether from the construction industry, agriculture industry, or oil industry and the DEIR provides no evidence to justify the different treatment. Such arbitrary policies reveal a pervasive bias against Ventura County oil and gas producers throughout the GPU and DEIR while offering scant or misleading evidence to justify this position.

- 21. Policy COS-9.1 and COS-9.3 (page 4.8-24) – Policies COS-9.1 and COS-9.3 conflict with policies COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax** since open space lands currently used for oil and gas production are better able to resist development pressure and conversion.

- 22. Implementation Program M: Oil and Gas Tax (page 4.8-25) – not based on substantial evidence:** the DEIR should provide evidence that the policies that may result in reduced local oil and gas production will actually reduce global GHG emissions. It is not clear that this assumption is well-founded since, generally speaking, CI values of Ventura County produced crude oil are relatively lower than crude oil produced in other California fields and global oilfields from which California imports most of the crude oil the state consumes as discussed more extensively in Comments 15 and 19 above.

- 23. Implementation Programs HAZ-A and HAZ-B (page 4.8-44) – Implementation Programs HAZ-A and HAZ-B potentially conflict with policies COS-7.2, COS-7.4, COS-7.7, COS-8.1, and Implementation Program M: Oil and Gas Tax** since oilfield roads and facilities can provide fire-breaks and wildfire response capabilities in support of the Implementation Programs HAZ-A and HAZ-B.

- 24. Mitigation Measure GHG-1: Prohibit Natural Gas Infrastructure in New Residential Development (page 4.8-45)** – Impacts from this policy must be analyzed in 4.14 Population and Housing since similar ordinances approved in California municipalities (e.g., San Luis Obispo) include “in-lieu fees” ranging from \$6,000 for a single-family residence up to nearly \$88,549 for large offices, thereby decreasing the affordability of the housing supply (source: <https://www.slocity.org/home/showdocument?id=23868>; <https://www.sanluisobispo.com/news/local/environment/article234680472.html>).

HAZARDS, HAZARDOUS MATERIALS AND WILDFIRE

- 25. Policy HAZ-5.2 (page 4.9-7)** – “Disproportionally impacts Designated Disadvantaged Communities” creates a subjective standard without citing a source for the designation.
- 26. Policy HAZ-6.8 (page 4.9-8) – not based on substantial evidence:** The DEIR provides no evidence to support the policy of allowing only “energy production from renewable resources” rather than allowing energy production from any sources. What evidence suggests that renewable resources (such as bio-methane) are any safer than non-renewable resources? Policy HAZ-6.8 is further evidence of the pervasive bias against the oil and gas industry throughout the DEIR.
- 27. Policy HAZ-6.8 (page 4.9-8):** Policy HAZ-6.8 should be included in Minerals and Petroleum Resources section impact analysis since it has the potential to “result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.”

LAND USE PLANNING

- 28. 2040 General Plan Policies and Implementation Programs (page 4.11-3) – vague and unclear project description:** Policy LU-1.2: Area Designations describes the “Urban” and “Existing Community” area designations. But the DEIR Section 3 Project Description states that these designations are being replaced by “15 land use designations that provide more detailed information on the types of land uses” (page 3-4), which is inconsistent with Policy LU-1.2 Area Designations. This inconsistency further muddles a Project Description that already lacks any meaningful details as Comment 5 above explains.

The same comment applies to Policy LU-2.1 and LU-3.1 through 3.3. Why are these policies considered part of the 2040 General Plan if one of the salient features of the 2040 General Plan is to replace these general designations with more specific designations?

- 29. Issues not Discussed Further (page 4.11-3):** Contrary to the narrative in the “Issues Not Discussed Further” section, the General Plan will have significant impacts to the North Ventura Avenue and Piru communities due to the numerous Mineral and Petroleum proposed policy changes including Policies COS-6.3, COS-6.4, COS-6.5, COS-7.2, COS-7.7, and COS-7.8, which will result in substantial changes and impacts to land use programs and planning in those communities. For example, the North Avenue Plan evaluates the applicability of land use designations to oilfield activities on page 5, analyzes oilfield activities on the “general character” of the area on page 11, etc. These potentially significant impacts to these communities must be

analyzed in the EIR in order to avoid project piecemealing (*Bozung v. Local Agency Formation Commission* (1975) 13 Cal. 3d 263).

- 30. Policy COS-6.5 (page 4.11-16):** Existing permits and policies do not require discretionary review of compatible mineral extraction including oil and gas. Any new discretionary evaluation to ascertain the significance of the mineral resources deposit would be redundant. Existing production and petroleum reserve studies have proven the existence of mineral deposits for extraction of oil and gas.
- 31. Policy COS-6.5 (page 4.11-16):** An analysis of Policy COS-6.5 should be included in 4.14 Population and Housing as it has the potential to impact the ability to meet affordable housing requirements since real estate development could be limited by the policy.
- 32. Impact 4.11-1 (page 4.11-18):** recommend changing text “oil and gas wells” to “oil and gas production” in both 2nd and 3rd paragraphs. Gathering lines for conveyance of oil, gas, and/or produced water are exempt and as such, are not subject to discretionary review. Each new or existing well, permissible under an approved and existing permit, is a vested right, not subject to any further discretionary review. See Comment 48 for further discussion on this topic.
- 33. Impact 4.11-1 (page 4.11-21):** The change in land use designations and new requirements for discretionary review would turn existing permitting of ministerial actions into discretionary permits. Contrary to the DEIR findings for Impact 4.11-1, such a change is a Class II Significant Impact requiring mitigation.

MINERAL AND PETROLEUM RESOURCES

- 34. Regulatory Setting (page 4.12-1 to 4.12-4) – incomplete regulatory setting:** The DEIR focuses primarily on State and federal agencies that regulate pipelines and flaring, which compose a small fraction of the comprehensive regulatory oversight for oil and gas operations in California. Please see Attachment 4 – Oil and Gas Regulatory Setting for a comprehensive list.
- 35. Methodology (page 4.12-5 to 4.12-6) – flawed impact assessment:** The petroleum resources map referenced in the DEIR (Figure 8-10 in the Background Report) is a 2016 map of “Petroleum Fields” which reflect the general location of petroleum reserves but do not indicate the known extent of recoverable sub-surface reserves which typically extend well beyond the boundaries indicated in Figure 8-10. This results in a potentially significant underestimate of the impact with regards to “the loss of availability of a known petroleum resource that would be of value to the region and residents of the State.”

Furthermore, the total reserves potentially impacted using the above methodology, estimated in the Background Report at 246,141,000 barrels (Background Report page 8-74) is likely an underestimate of the actual county petroleum resources since there’s no indication which resource classes were included in the estimate.

In accordance with the Society of Petroleum Engineers (SPE) Petroleum Resources Management System (PRMS), the industry standard, petroleum resources are classified as “discovered and undiscovered” and further defined recoverable resources classes include: “Production, Reserves,

Contingent Resources, and Prospective Resources, as well as Unrecoverable Petroleum” (source: https://www.spe.org/en/industry/reserves/?mkt_tok=eyJpIjoiTVRCbE56TTFZVGhoWmpNNClsluQiOiJMTDdvckhnSk1IOWtzY0hUOTE0MkdQQ3FINE0wNkF6YktnSIRObEp1amJMUmFVZU1PNmlK ejlxOGJXe jVGWHc3WHFIWHR2QXZsdTFYY1BIUIN6NTJhbDVjNng1U2pEMzVYWlwwZVBVcGMrOU IOOUZsQmZclYtUbVFJZm0wOUJiM2U3In0%253D).

The county oil reserves estimate should include a narrative describing the resource classes included in the estimated reserves and the document should be revised accordingly.

36. Policies COS-7.2 and COS-7.3 (page 4.12-13) – not based on substantial evidence: The DEIR states that policies COS-7.2 and COS-7.3 are proposed to limit effects on human health and references the 2018 Los Angeles County Department of Public Health (DPH) report as justification for the policies (County of Los Angeles. 2018. *Public Health Safety Risks of Oil and Gas Facilities in Los Angeles County*. Los Angeles County DPH).

The 2018 DPH report in turn references several studies that were also cited in the DEIR as justification for policies COS-7.2 and COS-7.3 (California Council on Science and Technology and Lawrence Berkley National Laboratory. 2015. *An Independent Scientific Assessment of Well Stimulation in California*).

However, a review of the 2018 DPH report found that the report’s conclusions and recommendations lack grounding in scientific research. According to the review, the referenced report:

- Lacks the objective scientific data from Los Angeles County operations to support its own conclusions and recommendations,
- Reviews other jurisdictions outside of California when making recommendations or claims,
- Uses weak and unsubstantiated science,
- Uses misleading language,
- Excludes DPH’s own data and previous studies,
- Recommends new regulations without addressing and enforcing current regulations in place (See Attachment 5 – 3/21/2018 DPH Report Comment Letter regarding the 2018 DPH Report for further discussion of the report’s shortcomings).

So controversial were the 2018 DPH Report’s findings and DPH’s response to the aforementioned 3/21/2018 comment letter that Los Angeles County Department of Regional Planning’s technical consultant, MRS Environmental Inc., who was responsible for reviewing “early drafts of the DPH Report” and providing “hundreds of comments on the Report,” sent a 5/8/2018 letter to DPH clarifying that:

*“our comments were in some cases accepted, in others partially accepted, and in many instances disregarded. MRS continues to believe that the **DPH Report includes many inaccurate and misleading statements**” (emphasis added);*

And that:

“MRS does not endorse, support or agree with the DPH Report in its final form”
(emphasis added, see Attachment 6 – 5/8/2018 MRS Letter to DPH).

The referenced 2018 DPH and Associated Reports do not provide suitable evidence that meets “danger to the public/public nuisance” standards required for permit revocation or modification of vested permits that Policies COS-7.2 and COS-7.3 attempt to implement. Please see Comment 48 below for further discussion of vested rights.

- 37. Policies COS-7.2 and COS-7.3 (page 4.12-13) – narrative conflicts with other DEIR findings:** The narrative in support of Policies COS-7.2 and COS-7.3 is inconsistent with the DEIR’s own findings for “Impact 4.9-2: Create a Significant Hazard to the Public or the Environment Through the Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials or Hazardous Waste into the Environment” (page 4.9-13) wherein the DEIR states that with regards to the potential release of hazardous materials or waste, including from “oil and gas exploration and production sites,” through policies HAZ-5.1, HAZ-5.2, HAZ-5.3, HAZ-5.4, HAZ-5.5, HAZ-5.6, HAZ-5.8, HAZ-7.1, HAZ-12.3, and Implementation Programs K and L, the:

“impact related to an accidental hazardous materials or waste stream release would be less than significant”

No further mitigation measures are indicated. If the impacts related to an accidental hazardous materials or waste stream release (including releases from oil and gas facilities) is less than significant, why are policies COS-7.2 and COS-7.3 necessary? The DEIR makes no attempt to reconcile these conflicting narratives.

- 38. Policies COS-7.2 and COS-7.3 (page 4.12-13) – narrative conflicts with other DEIR findings:** The narrative in support of Policies COS-7.2 and COS-7.3 is inconsistent with the DEIR’s own findings for “Impact 4.9-3: Emit Hazardous Emissions or Handle Hazardous Materials Within One-Quarter Mile of an Existing or Proposed School” (page 4.9-14). The DEIR states that with regards to the “potential for hazardous materials usage or handling to be located within 0.25 mile of an existing or proposed school, compliance with federal and State regulations pertaining to hazardous wastes,” including from “oil and gas exploration and production sites,” through adherence to Health and Safety Code Section 25536(a), California Government Code Section 6580.2, Policies HAZ-5.1, HAZ-5.2, HAZ-5.3, HAZ-5.4, HAZ-5.5, HAZ-5.6, HAZ-5.8, HAZ-7.1, HAZ-12.3, and Implementation Programs K and L, the impacts would be less than significant:

“potential for hazardous materials usage or handling to be located within 0.25 mile of an existing or proposed school, compliance with federal and State regulations pertaining to hazardous wastes, as well as 2040 General Plan policies and implementation programs discussed above, would substantially lessen adverse public health and safety impacts. This impact would be less than significant.”

No further mitigation measures are indicated. If the impacts related to hazardous materials usage or handling (including usage or handling at oil and gas facilities) located within 0.25 mile of a school is less than significant, why are policies COS-7.2 and COS-7.3 necessary? The DEIR makes no attempt to reconcile these conflicting narratives.

39. Mitigation PR-1 (page 4.12-18) – relies in part on unsettled legislation: The DEIR references AB 345 in support of Mitigation PR-1. AB 345 is invalid data that cannot be used in an EIR analysis until it is settled law. AB 345 is not law.

40. Mitigation PR-1 (page 4.12-18): Because Policy COS-7.2 mandates separation between structures, they are reciprocal and prevent development in both directions. As such, impacts from this policy must be analyzed in DEIR Section 4.14 Population and Housing since the policy will potentially impact the availability of affordable housing.

41. Policies COS-7.2 and COS-7.3 (page 4.12-19) – not based on substantial evidence: The DEIR also references the 2019 City of Los Angeles report (*City of Los Angeles. 2019 (July). Oil and Gas Health Report*) in support of policy COS-7.2. The DEIR states that the City of Los Angeles report recommends a minimum setback as well as “best available emission control technologies and operational management approaches.”

However, the DEIR entirely ignores the other findings of the 2019 City of Los Angeles report including the following statement recognizing the lack of evidence of public health impacts from oil and gas operations (page 145 of the report):

*“There is a lack of empirical evidence correlating oil and gas operations within the City of Los Angeles to widespread negative health impacts. **The lack of evidence of public health impacts from oil and natural gas operations has been demonstrated locally in multiple studies** by the Los Angeles County Department of Public Health, the Los Angeles County Oil & Gas Strike Team, the South Coast Air Quality Management District and the comprehensive Kern County Environmental Impact Report and Health Risk Assessment” (emphasis added).*

And the statement explicitly dismissing (page 145 of the report):

“Any public panic or belief in a widespread public health crisis.”

And the statement estimating the staggering expenses that will be incurred if such unnecessary setbacks are implemented in the City of Los Angeles (page 146 of the report):

*“If a surface setback distance is established, it could conservatively cost the City of Los Angeles at least \$148 million for existing oil and gas production and **up to \$97.6 billion in lost property values** by mineral rights owners” (emphasis added).*

The referenced 2019 City of Los Angeles Report does not provide suitable evidence that meets “danger to the public/public nuisance” standards required for permit revocation or modification of vested permits that Policies COS-7.2 and COS-7.3 attempt to implement. Please see Comment 48 below for further discussion of vested rights.

42. Mitigation PR-1 (page 4.12-21): Directional drilling is a method that cannot be used in all situations given reservoir dynamics, fault positioning and other geologic constraints and cannot be relied upon to mitigate the setback requirements. While it is a useful drilling technique, it is

not always a viable option and thereby cannot be relied upon as mitigation of the setback requirement.

43. Use of Term “Discretionary Wells” (various pages): The DEIR states throughout that all new wells are discretionary, thereby ignoring the fact that there are numerous existing conditional use permits that are vested and allow for ministerial zoning clearance for new wells.

44. Mitigation PR-1 (page 4.12-21): The DEIR comes to the correct conclusion that as a result of the proposed policies “the demand for California-produced oil and gas would be satisfied through the importation of additional oil and gas from other countries and Alaska, which in turn could have indirect environmental impacts such as those associated with transporting the oil and gas from outside of Ventura County.” After making this conclusion, the DEIR makes no further attempt to analyze the environmental impact of the proposed policy since the impacts would “largely occur outside of the 2040 General Plan project area.”

The DEIR must analyze impact of Policy COS-7.2 in accordance with the appropriate global geographic scope of the Greenhouse Gas and Climate Change environmental issue area. Please see Comment 19 for further discussion.

45. Impact 4.12-4 (page 4.12-22) – uses prejudicial language: The use of the term “antiquated” use permits is not only prejudicial and opinion, it is factually incorrect and ultimately irrelevant. There exist older conditional and special use permits that were properly approved by the County’s discretionary decision-makers (Board of Supervisors) at a public hearing. As such, they are valid permits and vested in their permitted uses. Whether anyone deems such permits to be “antiquated” is ultimately irrelevant; they nevertheless convey a vested right to operate. See further discussion of vested rights under Comment 48 below.

46. Impact 4.12-4/Policy COS-7.7 (page 4.12-23) – ignores its own conclusion of infeasibility: the DEIR states that proposed Policy COS-7.7 provides “potential environmental benefits in the form of increased traffic safety, fewer toxic air contaminants and reduced greenhouse gas emissions,” then proceeds to use the next several pages to explain why the proposed policy is likely infeasible:

- *“There are a **variety of logistical challenges** associated with piping crude oil”*
- *“Existing oil pipelines in the county are privately owned.”*
- *“The interconnection agreement is subject to agreement between oil operator and pipeline owner”*
- *“The study concluded that the initial production rate [required for economic feasibility] was **more than 16 times the annual production peak**”*
- *“For many smaller volume operators in the county, the payback period for constructing a crude oil pipeline could **render the investment in pipeline construction infeasible**”*
- *The pipeline operator “reserves the right to reject any and all shipments of oil” that do not meet specifications.*
- *“Meeting these thresholds and standards may require oil operators to install additional on-site production facilities to process the crude oil in order to meet API gravity thresholds, which **may not be technologically or economically feasible to install.**”*

- *“Oil operators may not be able to comply with requirements of Policy COS-7.7...due to the **technological and economic infeasibility** of installing Class II injection wells”*

The DEIR itself concludes that Policy COS-7.7 is infeasible. The question is why, after coming to this conclusion, did it remain in the DEIR? Impact 4.12-4 must be revised to acknowledge that Policy COS-7.7 is infeasible, and for that reason, be removed from the consideration in the EIR.

This revision alone constitutes “significant new information” that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5. The Impact 4.12-4 section of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

47. Impact 4.12-4/Policy COS-7.8 (page 4.12-27) – ignores its own conclusion of infeasibility: the DEIR states that proposed Policy COS-7.8 provides “potential environmental benefits in the form of increased traffic safety, fewer toxic air contaminants and reduced greenhouse gas emissions,” then proceeds to use the next several pages to explain why the proposed policy is likely infeasible and amounts to a de facto ban on oil and gas activity:

- *“There are several challenges involved with injecting gas into the intrastate transmission network.”*
- *“There is **no guarantee that SoCalGas would accept the gas** generated by the wells.*
- *“The study concluded that alternatives to the facility’s existing practice of continuous primary flaring...**would not support the costs** associated with transporting the gas to market...”*
- *“operators beyond the two-mile radius of a major gas transmission pipeline **would not be able to comply with the pipeline requirements of Policy COS-7.8 due to the technical or economic infeasibility.**”*
- *“Policy COS-7.8 could effectively prohibit the development of new discretionary oil and gas wells located outside of a two-mile radius of a major gas transmission pipeline.”*

And the DEIR presents no evidence to justify the arbitrary 2-mile feasibility demarcation. The DEIR simply makes two bold assumptions:

1. *“Oil wells located within a 2-mile radius of a major oil or gas transmission pipeline are connected to these transmission lines through smaller gathering or minor pipelines.”*
2. *“Operators have the ability to meet the API gravity thresholds and standards required to convey their oil through a major oil transmission pipeline.”*

The DEIR acknowledges Policy COS-7.8 will “effectively prohibit the development of new discretionary oil and gas wells” and the prohibition may either apply to wells outside of the 2-mile radius only, or throughout the entire county, depending on the accuracy of the aforementioned assumptions, for which no substantiating evidence is provided. The lead agency can and must do better than this when proposing policies of this scale and consequence.

Impact 4.12-4 must be revised to acknowledge that Policy COS-7.8 is infeasible and is a de facto ban on oil and gas activities in Ventura County, and for that reason, must be removed from consideration in the EIR.

This revision alone constitutes “significant new information” that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5. The Impact 4.12-4 section of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

48. Impact 4.12-4/Policy COS-7.7 and COS-7.8 (page 4.12-31): The DEIR concludes that Policies COS-7.7 and COS-7.8:

*“would mandate infrastructure that may **be technologically or economically infeasible to install;**” (emphasis added)*

And that the policies would:

“render a substantial quantity of petroleum resources inaccessible.”

The DEIR’s own narrative describes Policies COS-7.7 and COS-7.8 as infeasible and what amount to an unconstitutional taking under the law, which the DEIR defends by noting the County’s willingness to engage in other unconstitutional behavior involving zoning ordinance modifications (page 4.12-22):

“The County is considering amending its zoning ordinances to similarly require a discretionary permit modification to authorize new oil and gas developments under “antiquated”use permits.”

In doing so, the County ignores its own County Counsel’s 2014 “Legal Analysis on Antiquated Oilfield Conditional Use Permits” memorandum (see Attachment 7 – 2014 Ventura County Counsel Vested Rights Memo) wherein the County Counsel advised:

“The vested right in a permit entitles the permit holder significant and heightened judicial protections from revocation, imposition of new regulations, and changes to the permit.”

“The vested rights doctrine and constitutional principles of due process prevent a county from a general exercise of its police power to add modern conditions to antiquated oilfield permits just for the sake of improving their operation for the general welfare.”

By its own account, the County recognizes that Policies COS-7.7 and COS-7.8 are infeasible and unconstitutional. A county’s General Plan update process is no place to engage in such legal antics. Impact 4.12-4 must be revised to acknowledge that Policies COS-7.7 and COS-7.8 are infeasible and unconstitutional, and for those reasons, must be removed from consideration in the EIR.

This revision alone constitutes “significant new information” that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5. The Impact 4.12-4 section of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

ALTERNATIVES

49. 6.4 Alternatives Considered But Not Evaluated Further (page 6-7) – fundamentally flawed and misleading alternatives analysis: As correctly noted on page 6-7, the EIR should “identify any alternatives that were considered by the lead agency, but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency’s determination” pursuant to CEQA Guidelines Section 15126.6(c). The DEIR subsequently identifies two project alternatives that were “considered but not evaluated further”:

- 6.4.4 Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative
- 6.4.5 Eliminate or Reduce Existing Oil and Gas Wells or Production Alternative

For 6.4.4, the DEIR states that “this alternative was rejected from detailed consideration in the draft EIR for the following reasons,” but doesn’t provide any reason for rejection. Rather, it proceeds to explain how “major elements of this alternative are included in the 2040 General Plan” including:

- *“several policies that would have the effect of limiting increases in the number of new discretionary oil and gas wells in the county”*
- *“Policy COS-7.2 would require that new oil wells subject to discretionary approval are located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school.”*
- *“The substantial increases in setback requirements for new wells subject to discretionary permitting established by this policy would likely reduce the number of new discretionary oil and gas wells by prohibiting new discretionary wells within certain areas.”*
- *“policies...that would reduce the number of new discretionary oil and gas wells without placing a physical limitation on location or access” (Policies COS-7.8 and COS-7.9) which:*
- *“could make new oil and gas wells subject to the County’s discretionary approval process infeasible” (emphasis added).*

In the first paragraph on page 6-9, the DEIR doesn’t list a single actual reason for rejection because, as it carefully outlines above, it accepted every policy that would achieve the proposed “Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative.” Contrary to the DEIR’s narrative, Alternative 6.4.4 was not rejected.

The second paragraph on page 6-9 begins by saying (not having yet listed a single reason for rejection):

*“This alternative was **also** rejected from detailed consideration in the draft EIR because it focuses on one specific land use and does not comprehensively address most of the basic*

project objectives” (emphasis added).

Here, the DEIR acknowledges that it would be inappropriate to focus solely on one specific land use, even though, by accepting every policy that would achieve the alternative and as evidenced by the pervasive bias against the oil and gas industry throughout the document, that is precisely what the GPU intends to accomplish.

For 6.4.5, the DEIR states that in response to NOP comments recommending that the “County take actions to eliminate or greatly reduce the number of existing oil and gas wells” (please see Comment 1 for discussion of the biased description of “areas of known controversy”), this alternative was:

“likewise rejected from detailed consideration in the draft EIR.”

And that:

“This alternative would also present legal and economic feasibility issues that could be implicated by County efforts to reduce production from existing oil and gas wells.”

In this statement, the DEIR attempts to draw a fine line between protecting the vested nature of existing permits and operations (as the Ventura County Counsel so accurately described in the aforementioned 2014 “Legal Analysis on Antiquated Oilfield Conditional Use Permit” memorandum – see Attachment 7) and “new discretionary oil and gas wells” which it perceives as fair game. Meanwhile, the DEIR shines a light on the County’s efforts to undermine the very vested rights it purports to protect by “rejecting” Alternative 6.4.5, when it says (page 4.12-22, as previously noted under Comment 48 above):

“The County is considering amending its zoning ordinances to similarly require a discretionary permit modification to authorize new oil and gas developments under “antiquated” use permits”

Through the DEIR alternatives analysis narrative, the County implicates itself in its attempt to trample on the constitutional property rights of its residents, while making a mockery of the alternatives analysis prescribed by CEQA. With a wink and nod to the commenter who proposed Alternatives 6.4.4 and 6.4.5, “Citizens For Responsible Oil & Gas,” the County purports to “reject” the alternatives while including every “major element” of the alternative in the 2040 GPU.

The reality is that Alternatives 6.4.4 and 6.4.5 were not rejected at all. The Alternatives Analysis is not a good faith “consideration and discussion of alternatives to the proposed project” as required by CEQA Guidelines 15126.6. It is fundamentally flawed, misleading and must be revised appropriately.

This revision alone constitutes “significant new information” that must be added to the EIR requiring recirculation per CEQA Guidelines § 15088.5. The Alternatives Analysis of the DEIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public

review and comment have been precluded (*Mountain Lion Coalition v. Fish & Game Com.*(1989) 214 Cal.App.3d 1043).

Again, WSPA appreciates this opportunity to continue our engagement in the Ventura County General Plan Update (GPU) process in support of policies that will create the most sustainable energy future for our community, region, and nation. It is our sincere hope that the extensive comments noted herein on one of the most important documents guiding the future of Ventura County will be evaluated in good faith, with reasoned analysis, and at a level of detail that corresponds with the submitted comments in accordance with CEQA Guidelines § 15088(b).

We submit these comments with all due respect and look forward to working collaboratively with the County of Ventura and the many stakeholders in the GPU process.

Sincerely,

A handwritten signature in blue ink, appearing to read "B. Curtis".

Cc: Susan Curtis, Ventura County
Kim Prillhart, Ventura County
Dave Ward, Ventura County

ATTACHMENT 1

ECONOMIC AND TAX REVENUE IMPACTS OF OIL PRODUCTION IN VENTURA COUNTY

Economic and Tax Revenue Impacts of Oil Production in Ventura County

December 2017

Prepared For:
Californians for Energy Independence

Prepared By:
Capital Matrix Consulting

About the Authors

Brad Williams, the lead author of this report, joined Capitol Matrix Consulting (CMC) in 2011, after serving in various positions in California state government for 33 years. Mr. Williams worked for over a decade as the chief economist for the Legislative Analyst's Office, where he was considered one of the state's top experts on the tax system, the California economy, and government revenues. He was recognized by the Wall Street Journal as the most accurate forecaster of the California economy in the 1990s, and has authored numerous studies related to taxation and the economic impacts of policy proposals. Immediately prior to joining CMC, Mr. Williams served as a consultant to the Assembly Appropriations Committee, where he advised leadership of the majority party on proposed legislation relating to taxation, local government, labor, and banking.

Mike Genest founded Capitol Matrix Consulting (originally Genest Consulting) in 2010 after concluding a 32-year career in state government, which culminated as Director of the California Department of Finance (DOF) under Governor Arnold Schwarzenegger. Prior to his four-year stint as the Governor's chief fiscal policy advisor, Mr. Genest held top analytical and leadership positions in both the executive and legislative branches of government. These included Undersecretary of the Health and Human Services Agency, Staff Director of the Senate Republican Fiscal Office, Chief of Administration of the California Department of Corrections and Rehabilitation, and Director of the Social Services section of California's Legislative Analyst's Office.

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Executive Summary

The oil and gas industry has been operating in Ventura County (“County”) for over 100 years. It has been, and continues to be, a positive economic force in Ventura, supporting middle-class jobs (many of them in blue-collar occupations) that have been otherwise fleeing the region. Though the industry is highly regulated, there is growing interest among activist groups to ban production in Ventura County and other jurisdictions throughout the state. In view of this interest, Capitol Matrix Consulting has been commissioned by Californians for Energy Independence to estimate the contributions of the oil production industry to Ventura County’s economy and to state and local revenues. Information about the industry and our key findings are summarized below.

Oil and gas production in Ventura County. Oil production in the County totaled 7.7 million barrels in 2016, which represents 4 percent of California’s statewide total.¹ Natural gas production totaled about 7.0 million cubic feet (MMcf) in 2016. Most natural gas production in the County is associated with oil extraction. Some of this associated gas is used internally by companies for power and cogeneration (thus offsetting producer’s costs). The rest is sold to local utilities or Southern California Gas.

Workers employed by the industry. About 900 workers were directly employed in the County’s oil and gas production industry in 2016 (the most recent full year for which data are available). These jobs:

- Are high-paying, with the average wage in industry totaling just over \$115,000 per year – more than double the average in the rest of the private-sector in the County.
- Include workers in a variety of professional and technical fields.
- Provide vocational opportunities for workers with high school degrees, and have helped fill a void in middle-class jobs created by long-term declines in the finance, construction, and manufacturing industries in the County.

Industry’s effect on Ventura’s economy and government revenues. The oil and gas industry has a disproportionately positive impact on the region’s economy and state and local revenues. This reflects the enormous value of oil and gas reserves, the high wage payments in the industry, and the large amount of purchases made by oil producers from other local businesses. Taking into account the direct and multiplier effects of the industry (using the methodology and assumptions described in the *Broader Economic and Fiscal Impacts on Ventura County* section of the report) we estimate that oil and gas production has the following impacts:

¹ Of the total 7.7 million in oil production, 200,000 came from subsea formations on State Lands that are accessed entirely from onshore facilities.

- **Ventura Economy in 2018:** The oil and gas extraction industry in the County will account for \$760 million in economic output, \$474 million in gross regional product, 2,100 jobs, \$180 million in labor income, and over \$50 million in royalty and lease payments to mineral rights owners.
- **State and local tax revenues in 2018.** The industry is currently responsible for \$56 million in state and local taxes and fees, of which about \$35 million goes to state government and \$21 million goes to local jurisdictions within Ventura County. A large component of the local revenue is the property tax, which is applied to the value of oil and gas reserves. Oil and gas producers have historically been among the top four or five property tax payers in the County.
- **Perspective on 2018 estimates.** One important caveat to our economic and tax revenue estimates for 2018 is that they are being made when crude oil prices coming off a cyclical low point, and hence oil revenues, reserve valuations, and company expenditures are depressed.² To demonstrate how low these impacts are relative to the past and (likely) the future, we estimated the direct and indirect effects of the oil and gas production industry on employment and taxes going back to 2014 (based partly on actual employment and tax data for the direct impacts) and going forward to 2023 (using assumptions outlined in the *Broader Economic and Fiscal Impacts on Ventura County* section of the report). We found:
 - Employment directly and indirectly related to oil and gas production was about 3,100 in 2014 when oil prices peaked. This was 48 percent higher than current level of 2,100. Based on current and projected future increases in oil prices, we estimate that employment related to oil and gas production will rebound during the next several years, exceeding 3,000 jobs by 2023.
 - State and local tax revenues directly and indirectly related to oil production totaled \$89 million in 2014-15. This was 59 percent higher than the estimated 2018-19 level of \$56 million. Based on our long-term oil price projections, we estimate that tax payments attributable to the industry will rise to \$76 million by 2023. Of this total, \$47 million will be from state taxes and \$29 million from local taxes.

Impact of oil and gas production-related revenues on local government budgets. Twenty-nine million in local taxes is quite significant in the context of the cost pressures and relatively limited amount of discretionary funds (i.e. funds that

² The major decline since 2014 is tied to four main factors: (1) a slowdown in emerging market economies, particularly in China; (2) sharply rising U.S. shale production that persisted even after prices declined; (3) recent increases in crude production in Iran following the lifting of sanctions; and (4) until recently, the lack of output reductions among OPEC countries, whose members maintained production to both (a) avoid losses in market share and (b) drive U.S. shale producers out of business. Looking ahead, most forecasts anticipate, to varying degrees, an upswing in prices as supplies ease and global demand picks up. On the supply side, OPEC finally curtailed production beginning in late 2016 and renewed the restraints until 2018. The recent drops in exploration and new development spending by major producers imply less new supplies coming on line in future years to replace depleted reserves. On the demand side, energy consumption is rising and economic growth is improving in both developed and emerging markets, which implies further increases in consumption in the coming years.

are not earmarked for specific purposes) available to local governments within Ventura County to address budget challenges. Like many other cities and counties in California, local governments in Ventura County face budget pressures from a variety of quarters. These include unfunded pension liabilities, state mandates, and added costs related to state/local realignment of financial responsibilities for health, social services, and public safety programs. The loss of revenues due to curtailment or elimination of oil and gas production in the County would significantly reduce the limited amount of discretionary funds available to cover these budget pressures.

Estimated value of oil and gas fields in Ventura County. Finally, we estimate the total value of proven oil reserves in Ventura County is between \$650 million and \$1.6 billion, depending on future crude oil prices. Measures banning or restricting production from these fields would result in a major loss in value to oil producers and mineral rights owners in the County, and could put the County at risk of major liability associated with subsequent “takings” lawsuits seeking recovery for lost future profits from oil production.

Introduction

Oil and gas production has been an important source of economic activity in Ventura County for over 100 years. The industry has a disproportionately positive impact on economic activity and taxes paid to state and local government in the region. For example, it is an important source of high-paying, middle-class jobs that otherwise have been disappearing from Ventura County. The industry also has strong multiplier effects related to expenditures by oil producers and their employees, which boost jobs and income in supplying businesses throughout the region.

The industry is highly regulated by multiple state and federal agencies, including the California State Department of Conservation, Division of Oil, Gas & Geothermal Resources (DOGGR). It is also subject to Ventura County's detailed land use permitting requirements.

California imports over two-thirds of its oil, 90% of its natural gas and almost one-third of its electricity. Despite these factors, there is a growing interest among activist groups to ban oil and gas production in the region. Such a ban would reduce California crude oil supplies by about 4 percent and make the State more dependent on out-of-state and foreign oil produced under less stringent safety, labor and environmental standards. Aside from the negative environmental and economic consequences of greater foreign oil dependence, the elimination of local oil production would have serious economic consequences in terms of jobs, income, tax revenues, energy reliability and wealth in Ventura County.

Given these concerns, Capitol Matrix Consulting was commissioned by Californians for Energy Independence to estimate the direct and indirect economic contributions the oil and gas production industry makes to Ventura County.

Unlike some previous studies of economic impacts in the region, our current analysis focuses solely on upstream production activities. Thus, the economic and tax impacts shown in this report are smaller than these past studies, which have focused on both upstream and downstream operations. (Downstream operations include refineries, storage, distribution networks, and gasoline stations.) In particular, our estimates of state and local taxes are focused on those related directly and indirectly to crude oil production in the County. They do not include the larger retail sales and excise taxes imposed on retail sales gasoline and other refined products made from that crude oil.

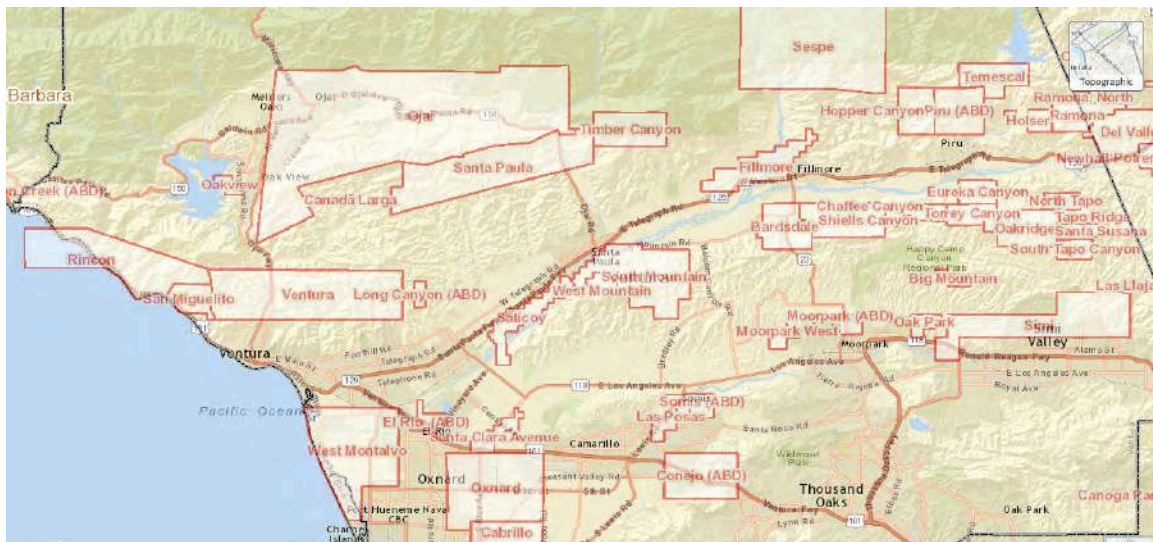
Economic and Tax Revenue Impacts of Oil Production in Ventura County

Our analysis focuses on the impacts of the oil production industry on the economy and tax revenues in Ventura County. It does not address the broader impacts that Ventura County oil production has on the California economy. It is worth noting, however, that a loss of 4 percent of statewide oil production would have significant consequences for the California petroleum markets. For example, it would make California more dependent on foreign crude oil, with the majority coming from Saudi Arabia, Kuwait and Ecuador. The greater dependence on foreign sources would have negative environmental consequences associated with operating practices abroad and long-distance oil shipments. It would also empower countries that do not apply California's human rights standards. Over time, the loss of domestic production would put the state at greater risk of foreign supply disruptions and make the state vulnerable to higher petroleum prices.

Background

Ventura County has been a significant source of statewide oil production for many years. The County sits on a rich oil basin – an area that is so prolific that oil seeps can be spotted in the Ojai Field, and naturally occurring tar balls can be found in the ocean offshore from the County. Though some production can be traced back to the mid-1800s, significant oil production in Ventura County began with the discovery of the South Mountain Oil Field in 1916 and the Ventura Avenue Oil Field in 1919. These were followed by discoveries of the Rincon field, the adjacent San Miguelito field in 1931, and several others in subsequent years. The last major onshore oil field discovery was Saticoy Field in 1955, with discoveries in subsequent years related to small fields, or extensions to existing oil fields. Consequently, the great majority of production today is from conventional fields that have been in production for well over 60 years. Figure 1 shows the location of the oil and gas fields in the County.³

Figure 1
Oil Fields in Ventura County



Most oil and gas fields experienced peak production decades ago. In order to recover more of the oil in place from these mature fields and make the most efficient use of existing facilities, producers frequently rely on water flooding and steam injection techniques. The incremental volume of oil associated with these enhanced recovery techniques accounts for over three-quarters of total production in the County.⁴

³ Source: California Department of Conservation, Division of Oil, Gas, and Geothermal, GIS Mapping. Well Finder. <https://maps.conservation.ca.gov/doggr/wellfinder/#openModal>

⁴ Water flooding and steam injection are used frequently in California to improve oil flow in mature fields, such as those in Ventura County. Water flooding involves injection of produced water into oil reservoirs to increase help oil flow more freely into producing wells. Steam injection introduces heat to the reservoir, causing the oil's viscosity to drop and allowing it to flow more freely into producing wells. These techniques are distinct from hydraulic fracturing, which involves the injection of water, proppants (usually sand), and a small volume of additives into a well at high pressure to create fractures and increase the permeability of the target reservoir. About 11 percent of all active wells in Ventura County have been hydraulically fractured, the majority of them decades ago.

Top Oil Fields and Producers

In 2016, production in Ventura County fields totaled 7.7 million barrels of oil, which amounted to 4 percent of California’s total oil production during the year.⁵ According to the California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR), there were 2,455 active wells in Ventura County as of October 2017. These wells are operated by 39 companies, working in 35 oil and gas fields in the County.

Figure 2 shows the top-producing field in the County is the Ventura Oil Field, which is the 10th largest in the State, and spans 4,300 acres in an unincorporated area northwest of the City of Ventura. The next largest fields are Oxnard, South Mountain, Sespe, San Miguelito, and Montalvo.

Figure 2
Top Oil and Gas Fields in Ventura County
Ranked by 2016 Oil Production

| Oil Field | Oil Produced (Thousands of Barrels) | Net Gas Produced (Thousands of BOE*) |
|----------------|-------------------------------------------|-----------------------------------------|
| Ventura | 4,506 | 420 |
| South Mountain | 542 | 112 |
| Oxnard | 433 | 3 |
| Sespe | 373 | 150 |
| San Miguelito | 367 | 51 |
| Montalvo | 325 | 30 |
| Rincon | 220 | 33 |

BOE stands for “barrels of oil equivalent,” a term often used to summarize the amount of energy in natural gas that is equivalent to that found in one barrel of crude oil. We are using the conversion factor of 6,000 cubic feet of natural gas equals 1 BOE.

⁵ Source: “2016 Report of Oil and Gas Production Statistics.” California Department of Conservation, Division of Oil, Gas, and Geothermal Resources. About 7.0 MMcf (1.2 million barrels of oil equivalent) in natural gas was also produced in the County during the year. The great majority is “associated” gas, which is extracted in conjunction with oil. A significant portion of associated gas is not put on the market, but rather is used internally to support steam and power generation in the oil fields. Thus, the economic impacts of associated gas production are partly reflected as industry output and partly as a reduction in production costs for oil producers.

Economic and Tax Revenue Impacts of Oil Production in Ventura County

Two companies presently account for 86 percent of Ventura County’s oil production (see Figure 3). The largest operator is Aera Energy LLC (“Aera”), which is a joint venture between Shell Oil Company and Exxon Mobil. Aera is the sole operator in Ventura Field, and thus was responsible for 100 percent of the field’s 4.5 million barrels of annual oil production in 2016. California Resources Corporation (CRC) is the second largest producer, accounting for over 2.2 million barrels of production in 2016. CRC has active wells in 18 oil fields in the County, with significant production in the South Mountain, San Miguelito, Rincon and Montalvo fields.⁶ The remaining oil production in 2016 was attributable to several operators, including Seneca Resources Corporation and ABA Energy Corporation.

Figure 3
2016 Top Oil Producers in Ventura County

| Producer | Total Barrels (In Thousands) |
|---------------------------------------------|---------------------------------|
| Aera Energy, LLC | 4,506 |
| California Resources Production Corporation | 2,155 |
| Seneca Resources Corporation | 366 |
| ABA Energy Corporation | 244 |
| Vaquero | 31 |
| Other | 420 |
| Grand total | 7,722 |

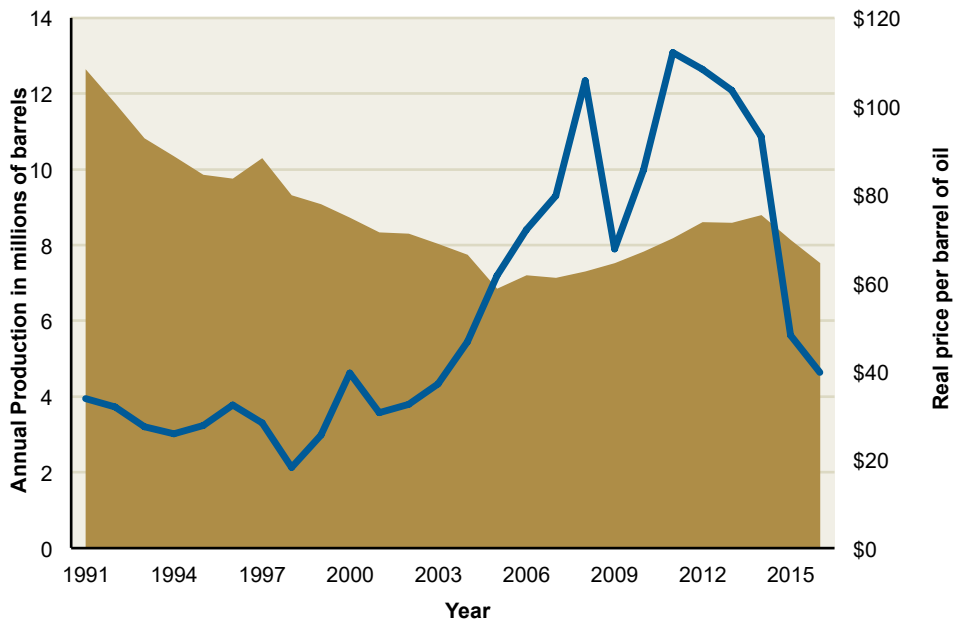
Recent Production

Oil production is influenced by oil prices in the global markets. As shown in Figure 4, production in Ventura County declined steadily from 1990 through the early 2000s when oil prices were generally low, but rebounded when oil prices started to rise in 2005. During the 8-year period from 2005 to 2013, world oil prices (in constant 2015 prices) jumped from \$61 to \$103 per barrel, and oil production in Ventura County rose from 6.9 million barrels to 8.6 million barrels annually.⁷ The increased production was due to investments aimed primarily at extracting more oil from existing oil fields through additional drilling, restoration of marginal wells, and installation of enhanced oil recovery (EOR) systems like water flooding and steam flooding. The sharp decline in oil prices during the subsequent three years led to corresponding reductions in oil production in the County. As noted below, we believe that oil production bottomed out in 2017, and will start to recover in 2018.

⁶ Source: California Department of Conservation, Division of Oil, Gas, and Geothermal – Well Search. <https://secure.conservation.ca.gov/WellSearch88>.

⁷ Source: Oil prices are from the U.S. Energy Information Administration, and represent the inflation-adjusted price of imported crude oil. <https://www.eia.gov/outlooks/steo/realprices/>. Production data is from the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources. <https://secure.conservation.ca.gov/WellSearch>.

Figure 4
Annual Oil Production and Prices in Ventura County
(1991 to 2016)



Employment, Wages, and Occupational Patterns

The oil and gas production-related industries directly supported 900 jobs in Ventura County during 2016. As shown in Figure 5, the total includes 465 workers employed by oil producers. It also includes 32 workers employed by companies providing drilling services, and 198 workers in companies providing other support services to the oil producers on a contract basis. These other support services include surveying, excavation, the testing and maintenance of wells, and inspection and operation of field gathering lines. They also include workers involved in construction and maintenance of facilities, many of whom are union members in the Building and Construction Trades.

The total also includes 76 workers involved in oil and gas pipeline construction, and 129 self-employed independent contractors, mostly providing field support services discussed above. The industries account for \$79 million in wage payments in the County.⁸

⁸ Employment and wage data is from the *Quarterly Census of Employment and Wages*, California Employment Development Department. <http://www.labormarketinfo.edd.ca.gov/qcew/qcew-select.asp>. Field estimates of self employed independent contractors from the U.S. Census Bureau, Non-employer statistics. <https://www.census.gov/programs-surveys/nonemployer-statistics.html>.

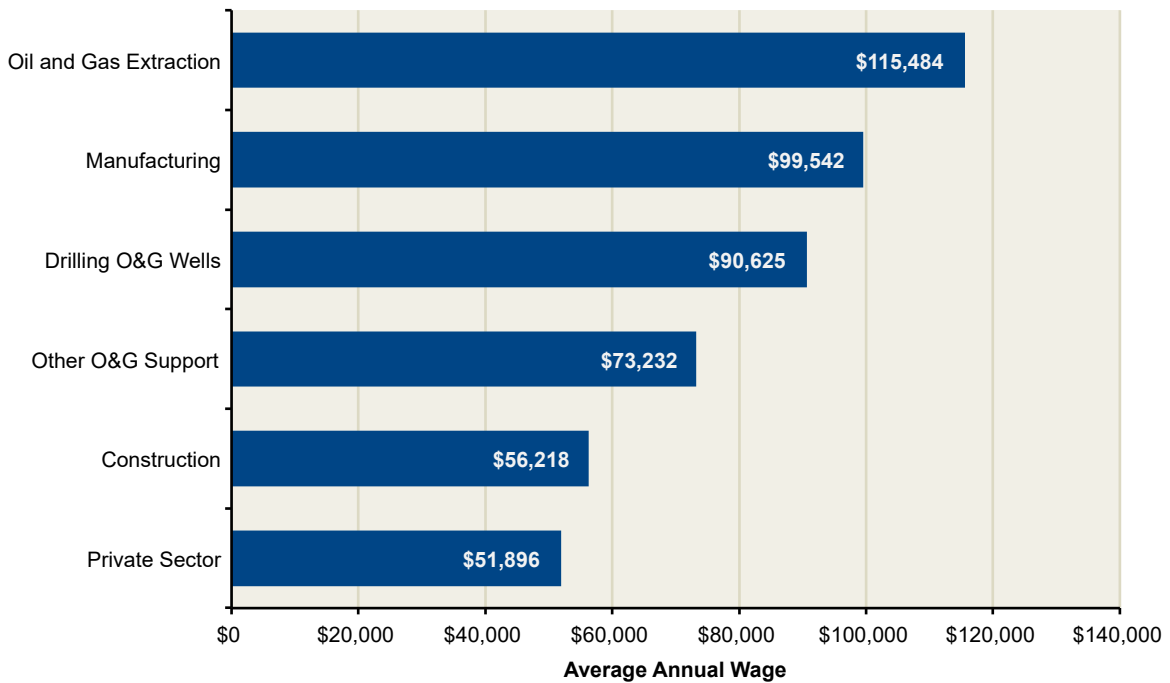
Figure 5
Employment and Wages in Oil and Gas Production Industry
2016

| Oil and Gas Industries | Ventura County Employment | Annual Wages (\$ Millions) | Average Annual Wage |
|---------------------------------------|---------------------------|----------------------------|---------------------|
| Extraction | 465 | \$53.7 | \$115,484 |
| Support Activities: | | | |
| Drilling | 32 | 2.9 | 90,625 |
| Other | 198 | 14.5 | 73,232 |
| Pipelines construction | 76 | 4.3 | 56,579 |
| Total | 771 | \$76.4 | \$99,092 |
| Self employed independent contractors | 129 | \$3.9 | \$30,233 |
| Grand total | 900 | \$79.3 | \$88,111 |

Comparison of wages paid to other industries. As indicated in Figure 6, the \$115,484 average pay for the oil and gas extraction industry is more than double the average pay for both the rest of the private sector, and for the Construction Industry (also a major employer of skilled technical jobs). The average pay is also 16 percent higher than the region’s manufacturing sector. The industry is one of the few in the County that pays wages that are high enough to enable a family to afford a median priced home in the region (\$634,000 in October 2017).⁹

⁹ Assuming a 10 percent down payment and an interest rate of 3.8% on a 30-year mortgage, annual payments on a median priced \$634,000 home would be \$32,167, or slightly less than one-third of the average \$99,000 employee salary in the oil extraction and support industries.

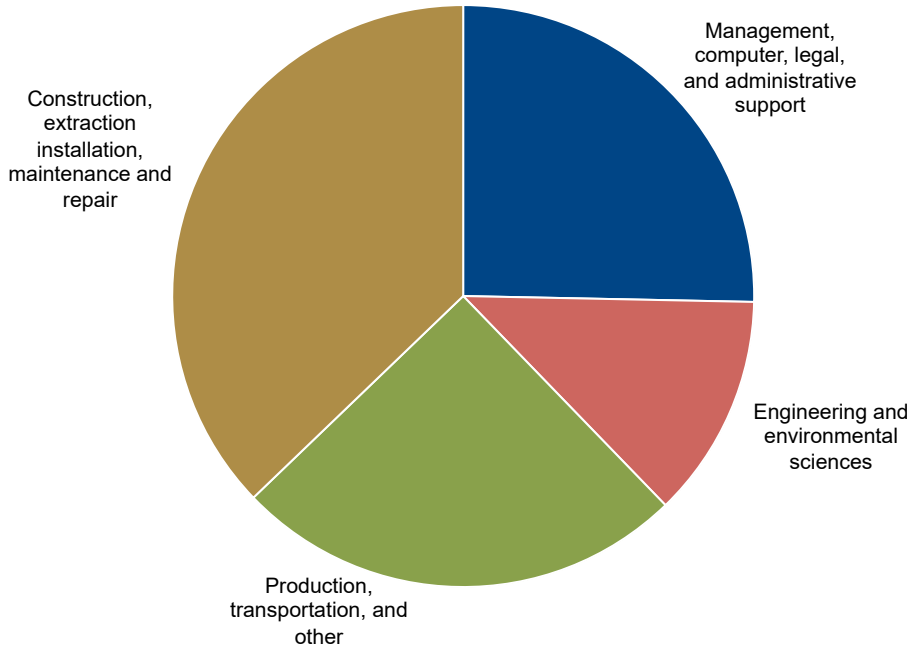
Figure 6
Ventura County Average Annual Wage by Industry



Occupational distribution. The oil and gas production and support industries employ a workforce with a diverse set of skills and educational backgrounds. As shown in Figure 7, 62 percent of total jobs the industry are in in construction, extraction, installation, maintenance, repair, and transportation occupations.¹⁰ The other 38 percent are in management and professional occupations.

¹⁰ Source: U.S. Department of Labor, Bureau of Labor Statistics Industry-Occupation Data Matrix. https://www.bls.gov/emp/ep_table_109.htm

Figure 7
Occupation Breakout of Oil and Gas Production-Related Industries

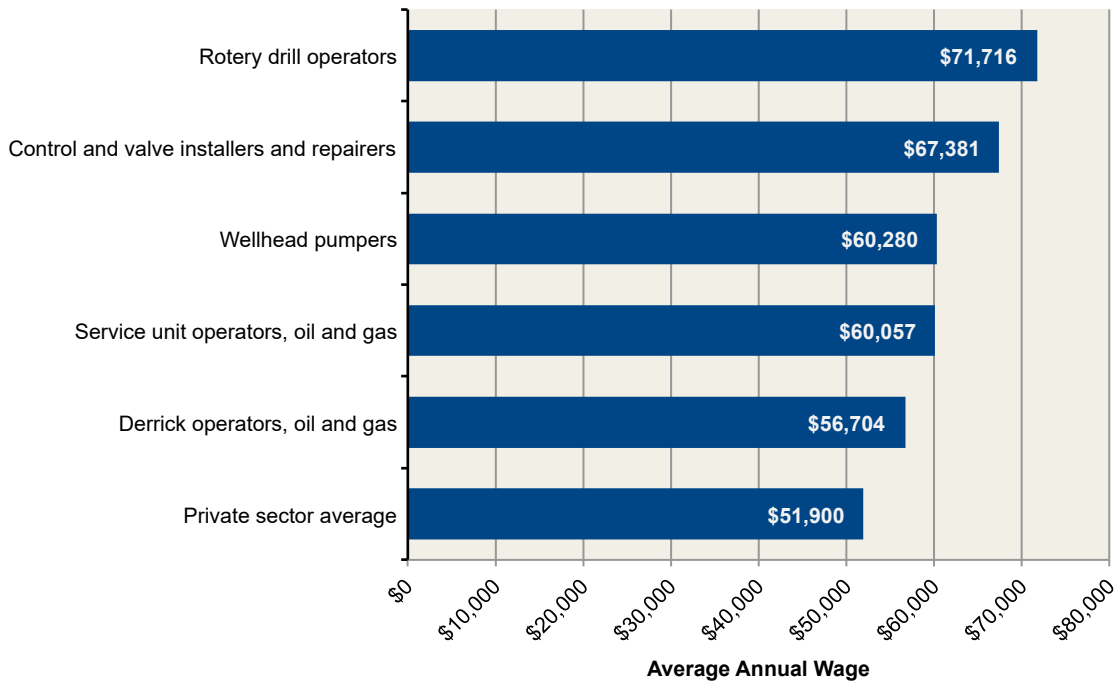


The industry is an important source of well-paying blue collar jobs, most of which are available to individuals with high-school degrees (see Figure 8). According to data from the California Employment Development Department, the average annual pay rates for derrick operators (\$56,704), service unit operators (\$60,057), rotary drill operators (\$71,716) and wellhead pumpers (\$60,280) all exceeded the average for all private sector jobs in the County (\$51,900) in the first quarter of 2017.¹¹ The pay rates are sharply higher than the \$40,000 per-year average for occupations in Ventura County requiring a high school degree or less.¹²

¹¹ Source: "Occupational Employment (May 2016) and Wage (2017 – 1st Quarter) Data. Occupational Employment Statistics (OES) Survey Results." Oxnard-Thousand Oaks-Ventura MSA. Ventura County. Released June 2017. <http://www.labormarketinfo.edd.ca.gov/data/oes-employment-and-wages.html#OES>

¹² Source: "Employment Projections by Industry and Occupations, Ventura County." Employment Development Department. <http://www.labormarketinfo.edd.ca.gov/data/employment-projections.html#Long>

Figure 8
Average Pay, Selected Blue-Collar Jobs in Oil and Gas Mining and Support Industries, Ventura County

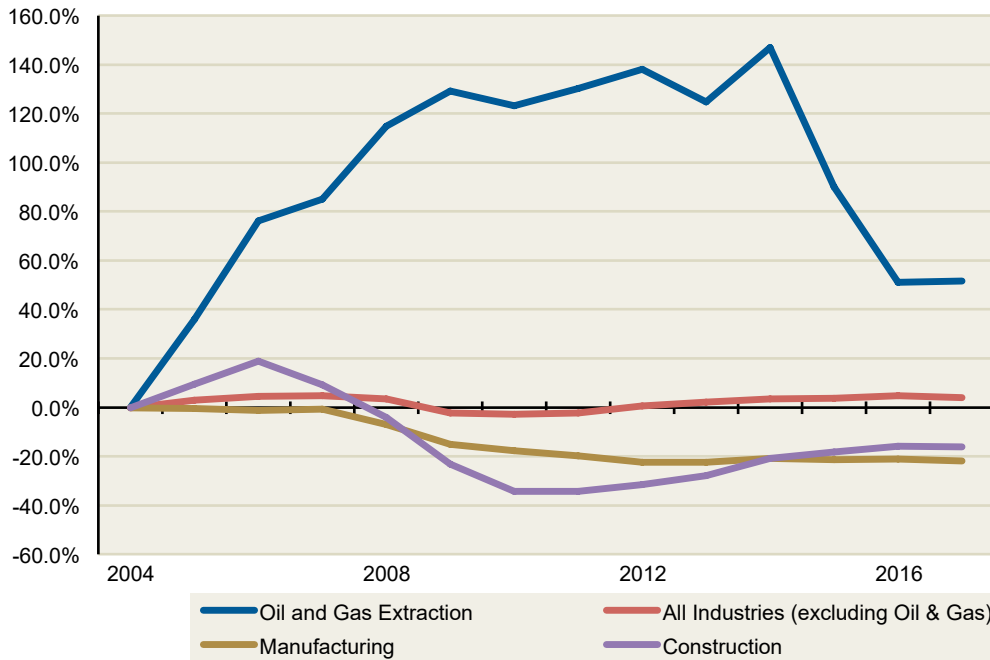


Above-average salaries also extend into the professional and managerial ranks. As one example, the average salary for a petroleum engineer in Ventura County is \$142,000 per year. This compares to \$97,000 for biomedical engineers, \$113,000 for electrical engineers, and \$106,000 for civil engineers.

Recent industry performance. Although subject to ups and downs due to changes in the world market for crude petroleum, the oil and gas production industry has been a stabilizing force in the Ventura County economy. Despite recent declines, it remains one of the few industries providing high-paying, middle-class jobs that have experienced job growth during this century. In this regard, it has offset some of the large losses experienced in the County’s finance, construction, and manufacturing sectors.

As indicated in Figure 9, jobs in the oil and gas industry increased by over 55 percent between 2004 and 2016. This is in stark contrast to near zero growth in Ventura County’s private sector, and the over 15-percent declines in its manufacturing and construction industries. The strong cumulative growth since 2004 has occurred despite the recent downturn in oil prices and production activity.

Figure 9
Cumulative Percent Change in Jobs: 2004-2016
Ventura County



Looking ahead, we expect oil and gas extraction to be one of the few high-paying industries in Ventura County to experience above-average job growth over the next decade. The majority of new jobs created outside of this industry are projected to be in retail trade, office, administrative, food preparation, managerial, and transportation occupations, which collectively have an average wage of less than \$40,000 per year in 2017.¹³

In sum, the oil and gas industry is an important part of the Ventura County economy, supporting jobs in a wide range of high-paying occupations. In addition, it boosts other industries through its large purchases of materials and services from businesses located in the region. We discuss the full impacts of the oil and gas industry on Ventura’s broader economy in the following section.

¹³ Ibid.

Broader Economic and Fiscal Impacts on Ventura County

In this section, we measure the full (direct and multiplier) economic and fiscal impacts of the oil and gas industry on Ventura County. We have prepared detailed estimates for the 2018, as well as aggregated estimates of employment and taxes going back to 2014 and going forward to 2023. (The retrospective estimates are based partly on actual data for employment and key taxes imposed on oil and gas producers, along with our IMPLAN-based multiplier estimates.)

Sources of Economic Impacts

The oil production industry generates economic activity in Ventura County through three main channels.

- The first is the output, employment, royalties and wages paid by the oil producers and companies providing on-site support services. These are referred to as direct impacts.
- The second is economic activity generated by local businesses that supply goods and services to the oil producers and their field contractors. These include suppliers of energy, engineering services, equipment, and repair and maintenance services. Economic activity generated by these supplying businesses is referred to as indirect impacts.
- The third is business activity that is generated by purchases of goods and services by the households of employees working for oil producers and their suppliers. These are referred to as induced impacts. These expenditures boost sales, jobs and wages in a wide range of industries, including restaurants, retail establishments, real estate offices, entertainment venues, and professional services.

Methodology

Our estimates of the three channels of impacts are based on a multi-step process that uses as a starting point historical information regarding oil production, employment, wage payments, royalty payments, purchases of materials and services, and taxes paid.

We developed this information from a combination of data supplied by oil producers and a variety of public sources. Examples of public data include: company expenditure data from SEC 10(k) annual filings; production data from the State Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR); oil price data from the U.S. Energy Information Agency (EIA); and employment and wage data from the California Employment Development Department's (EDD) Quarterly Census of Employment and Wages. We also developed information on average local tax rates by reviewing budget data from government agencies operating within Ventura County.

Economic and Tax Revenue Impacts of Oil Production in Ventura County

From these inputs, we estimated direct output, employment, wages, and taxes for 2018. We then estimated the multiplier effects of company expenditures on the broader economy, using the IMPLAN input-output model for Ventura County (see box below).

We also developed estimates of employment and tax revenues back to 2014 and forward to 2023. Our estimates for past years are based partly on actual employment and tax data. Our projections for future years are based on financial and regression-based models that translate key assumptions about oil prices, production and costs into estimates of employment, income, and tax payments.

Assumptions

Some of the key assumptions for our multi-year projection are as follows:

- **Oil prices.** Our estimates assume crude oil prices received by Ventura County producers will be consistent with the average of EIA's January 2017 long-term "reference" forecast and the World Bank's April 2017 projections.¹⁴ We specifically assume that prices (in constant 2018 dollars) to average \$60 per barrel in 2018, \$66 per barrel in 2020, and \$70 per barrel by 2023.
- **Oil production.** We assume that oil production in Ventura will total 7.8 million barrels in 2018, rising modestly to slightly over 8 million barrels by 2023. Over this period, natural declines in well production are slightly more than offset by (1) the reactivation of temporarily idled low-production wells and (2) investments in new wells and enhanced recovery operations, both of which occur as crude oil prices rise.
- **Production-related expenditures.** We assume oil production costs of \$26 per barrel for operational expenditures and \$10 per barrel for capital expenditures in 2018. We project that these per-barrel costs will increase by an inflation-adjusted rate of 4 percent per year between 2018 and 2023, as companies boost expenditures for operations and new investments in response to higher oil prices.
- **Percent of spending going to local households and businesses.** We assume that about 75 percent of total company expenditures will go to employees and business contractors located within Ventura County and the remaining 25 percent will go to businesses located outside the County. Most of the 25 percent going outside the County is related to capital expenditures for equipment, which is largely produced outside of California.
- **Employment and Income.** We estimate that employment in the oil and gas production related industries will average 940 during 2018, up

¹⁴ Source of EIA forecast is "Annual Energy Outlook, 2017. Table: Total Energy Supply, Disposition, and Price Summary." <https://www.eia.gov/outlooks/aeo/data/browser/#/?id=1-AEO2017&cases=ref2017&sourcekey=0>. Source of World Bank forecast is "World Bank Commodities Price Forecast (Nominal U.S. Dollars.) Released April 2017." <http://pubdocs.worldbank.org/en/662641493046964412/CMO-April-2017-Forecasts.pdf>

modestly from 900 in 2016.¹⁵ Our estimates take into account quarterly job and wage data available from EDD through the second quarter of 2017, which we extrapolated to 2018 based on recent oil price developments.

IMPLAN Input-Output Model

IMPLAN is an input-output modeling system that enables users to calculate the direct, indirect, and induced effects of output and/or spending in one industry on other industries located within a geographical region (national, state, county, metropolitan statistical area, or zip code). IMPLAN is widely used by academic institutions, federal, state, and local government agencies, and private companies for economic impact analyses. The model is based on benchmark U.S. input-output accounts produced by the U.S. Bureau of Economic Analysis (BEA). These accounts describe commodity inputs that are used by each industry to produce its output, the commodities produced by each industry, and the use of commodities by final consumers. The relationships in the national accounts are then modified by IMPLAN for each local region to take into account such factors as the relative size of the region's various industrial sectors. Based on these inter-industry tables, IMPLAN calculates a total requirements table, which estimates the full impacts (including multiplier effects) of a given change in output in one industry on all other industries in the economy.

Results For 2018

Economic Impacts. We estimate total output supported directly and indirectly by the oil and gas production industry will total \$760 million in 2018. The industry will also support about \$474 million in gross regional product,¹⁶ 2,100 jobs, and \$180 million in labor income during the year.

These totals include direct effects related to output, employment, and wages paid payments by oil producers, plus multiplier effects generated by the purchases made by oil producers of fuel, materials, and services from other businesses (indirect effects). The totals also reflect the impacts of purchases by households of employees working for oil producers and their suppliers (induced effects).

In addition to these totals, oil producers are expected to pay more than \$50 million in royalty and lease payments to owners of oil and gas mineral rights in Ventura County. A portion of these payments will be spent locally on goods and services, further boosting economic activity in the region.

¹⁵ The direct impact of 875 jobs shown in Figure 10 is equal to 940 total jobs in the oil and gas production related industries excluding 65 jobs in oil and gas pipeline construction. A portion of the construction jobs are included in the indirect impact row of Figure 10.

¹⁶ Economic output is the annual value of sales generated by the oil production industry and its suppliers. Gross regional product is akin to the widely cited U.S. gross domestic product. It is equal to the "value added" by the oil and gas production industry and each of its suppliers. Value added for each industry is equal to its total economic output minus the cost of its inputs (i.e. purchases from other industries). In the case of oil and gas production, these inputs include, for example, energy purchased from utilities to power its wells and maintenance services purchased from contractors needed to keep the wells operating. By backing out the cost of inputs, gross regional product avoids "double counting" of raw materials, parts, and business services used as products that are assembled, distributed and ultimately sold on the retail market.

Economic and Tax Revenue Impacts of Oil Production in Ventura County

As shown in Figure 10, the employment multiplier associated with the oil extraction industry is 2.4, implying that each job in the oil and gas industry supports more than one additional job in other industries within the County. The job multiplier for oil and gas production compares to median of about 1.8 for all industries in Ventura County. The above-average multiplier is partly due to the high wages paid by oil and gas producers, which generate substantial household income that is spent in the local economy. It also reflects the large amount of purchases made by oil and gas producers from other businesses in the local region.

Businesses supported by expenditures by oil and gas producers (and their employees) encompass a wide range of industries, including engineering services, maintenance and repair construction, wholesale and retail trade, finance, real estate, and professional and personal services.

Figure 10
Economic Impact of Oil and Gas Extraction on Ventura in 2018
(Dollars in Millions)

| Type of Impact | Economic Output | Gross Regional Product | Number of Jobs | Labor Income |
|----------------|-----------------|------------------------|----------------|--------------|
| Direct | \$523 | \$323 | 875 | \$80 |
| Indirect | 120 | 81 | 355 | 61 |
| Induced | 117 | 70 | 870 | 39 |
| Total | \$760 | \$474 | 2,100 | \$180 |
| Multiplier | 1.5 | 1.5 | 2.4 | 2.3 |

Revenue impacts. We estimate that oil and gas producers in Ventura account directly and indirectly for about \$56 million in annual taxes paid to state and local governments. Of this total, slightly over \$35 million is related to taxes and fees paid to the State (a significant portion of which is distributed back to cities and counties to support public safety, health, and social services programs), and slightly over \$21 million is related to taxes and fees collected by local governments and used to support local programs.

As indicated in Figure 11, major state tax and fee levies include: corporate income taxes; personal income taxes on royalties paid to mineral rights owners and wages paid to employees; sales taxes on oil producers' purchases of materials, fuels, and equipment; and the DOGGR administrative fee to support a variety of regulatory activities.

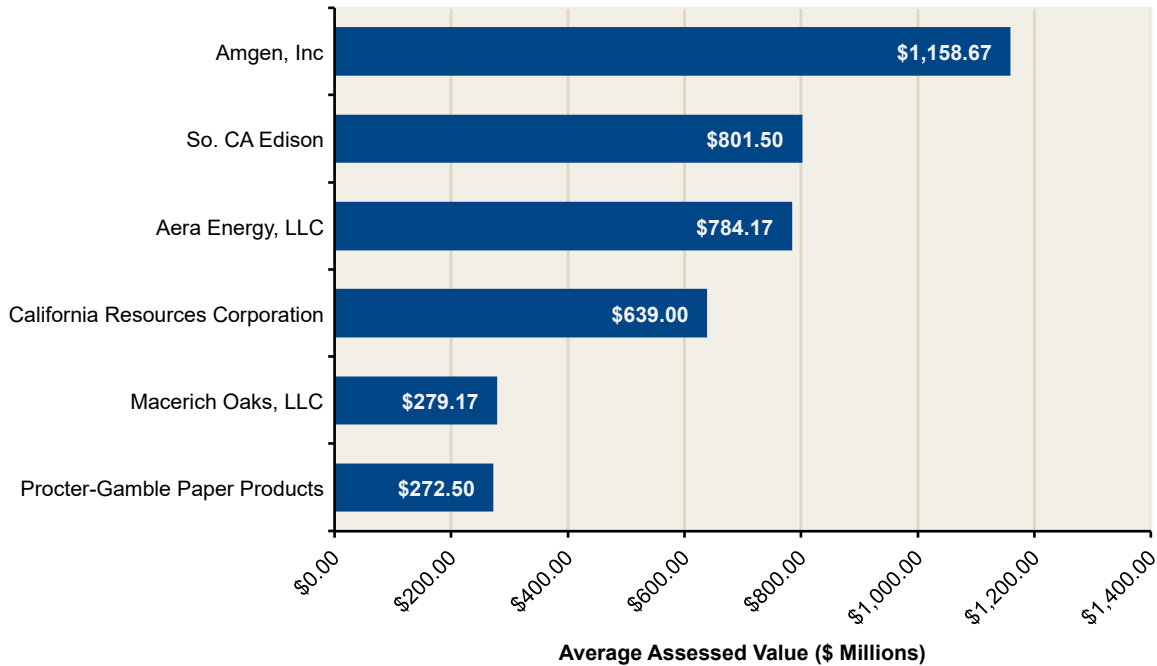
Figure 11
Taxes Paid To State and Local Governments in 2018-19

| Tax Source | Total Amount (In Thousands) | Per Barrel Amount |
|--------------------------------------|--------------------------------|-------------------|
| Direct: | | |
| State | | |
| Corporation Tax | \$8,500 | \$1.10 |
| Personal income | 4,140 | 0.54 |
| Sales | 5,265 | 0.68 |
| DOGGR | 4,439 | 0.57 |
| Total | \$22,344 | \$2.89 |
| Local: | | |
| Property | \$14,215 | \$1.84 |
| Sales | 1,185 | 0.15 |
| Business License/other | 404 | 0.05 |
| Total | \$15,804 | \$2.05 |
| Indirect: | | |
| State | \$13,007 | \$1.68 |
| Local | 5,203 | 0.67 |
| Total | \$18,210 | \$2.36 |
| Combined, Direct and Indirect | | |
| State | \$ 35,351 | \$4.58 |
| Local | 21,007 | 2.72 |
| Total | \$56,358 | \$7.30 |

The largest local tax is the property tax, which is applied to the value of oil reserves and company facilities. Though recent declines in oil prices have reduced taxes from this source, oil producers have frequently been among the largest taxpayers in the County. As shown in Figure 12, Aera Energy, LLC and California Resources Corporation were the third and fourth largest property taxpayers in the County, respectively, during the five-year period ending in 2015-16.¹⁷

¹⁷ Source: County of Ventura, Principal Property Tax Payers, Current Fiscal Year (Unaudited).” In *Comprehensive Financial Report, Ventura County* for fiscal years 2010-11 through 2015-16. <http://www.ventura.org/auditor-controller/comprehensive-annual-financial-report-2011>

Figure 12
Top 6 Property Taxpayers in Ventura County, Average Assessed Valuation, 2010-11 through 2015-16



Other sources of local revenues are the local portion of the sales tax and a variety of business license taxes and fees levied by local jurisdictions in the County. These totals do not include routine environmental fees, well-permitting fees, or other regulatory fees where the proceeds are intended to offset the direct cost of governmental review and enforcement.

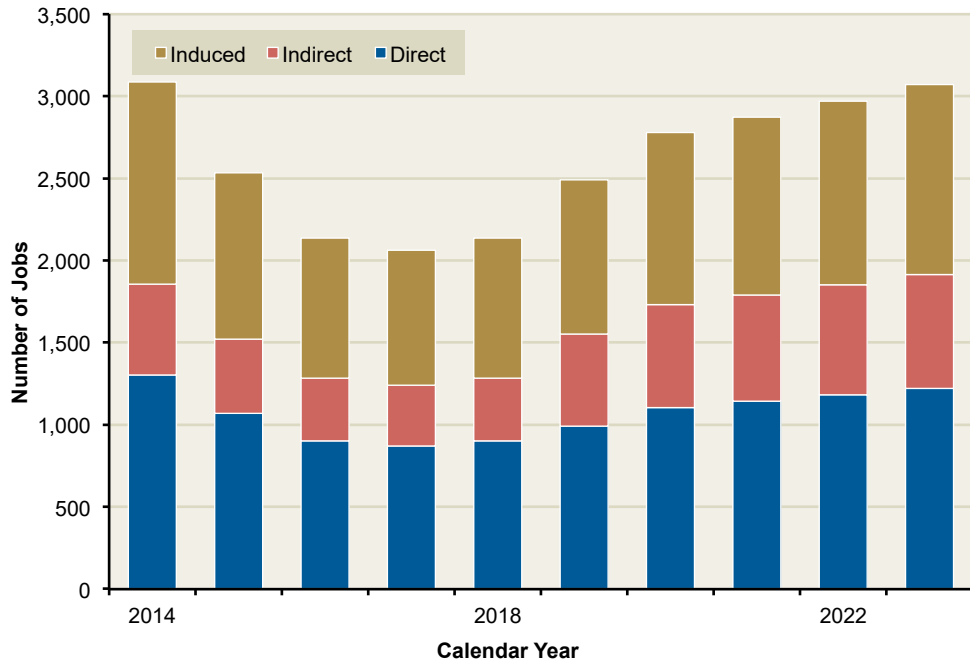
In addition to the taxes levied directly on oil producers, mineral rights owners, and employees, the industry generates a considerable amount of tax revenue indirectly, as expenditures by oil companies, the households of their employees, their vendors, and mineral right owners generate additional sales, jobs, and income throughout the region. We estimate these multiplier effects result in an additional \$18 million in state and local taxes per year.

Perspectives On Our 2018 Estimates

The above economic- and revenue-impact estimates are for 2018, a period when oil prices, investment, revenues, and reserve valuations are coming off a cyclical low point for the industry. To provide some perspective on how these estimates compare to past actual levels and future projections, we reviewed actual industry employment and tax collections in the four prior years, and made estimates of these two measures through 2023 based on current projections of crude oil prices. We then calculated the multiplier effects using the IMPLAN model described above.

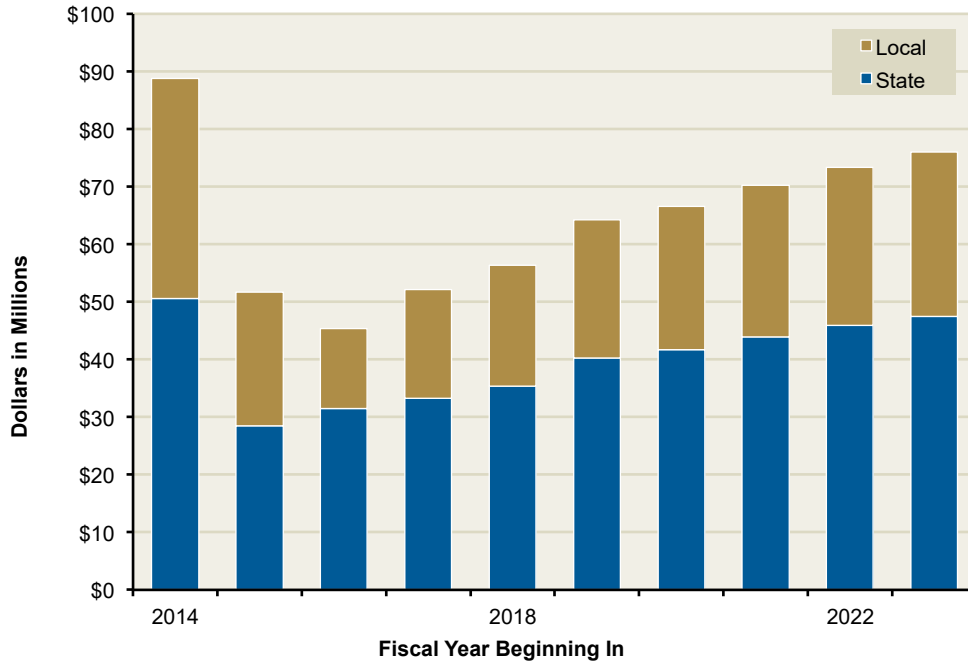
Employment. Figure 13 shows that employment directly and indirectly related to crude oil production was nearly 3,100 in 2014, about 48 percent above 2018 levels. Employment fell sharply in the following two years, as oil prices plunged and company investments in new wells and field development were sharply curtailed. After stabilizing in 2017, we expect employment to turn upward in 2018 and continue to expand during the next several years, as oil prices rise and companies renew investments in field operations. As indicated in Figure 13, we estimate that employment directly and indirectly related to oil and gas extraction will exceed 3,000 by 2023-24.

Figure 13
Employment Related to Oil and Gas Production in Ventura County



State and local taxes. As is the case with employment, state and local taxes related to the oil and gas production industry were much higher in the recent past. Specifically, we estimate that industry-related tax revenues were \$89 million in 2014-15, or 59 percent higher than today. The higher tax revenues reflected much stronger levels of operator revenues, purchases of taxable goods, and oil and gas reserve values subject to property taxation during 2014. As indicated in Figure 14, revenues fell in the subsequent three years, in line with declining oil prices. After bottoming out at \$45 million in 2016-17 they began to recover in 2017-18, and are expected to reach \$56 million in 2018-19. We expect that state and local taxes will rise further in subsequent years. Reflecting higher taxes on oil reserves, company expenditures, and oil revenues, we estimate that industry-related tax revenues will reach \$76 million by 2023-24. Of this total, \$47 million is related to state taxes and \$29 million is related to local taxes.

Figure 14
State and Local Taxes Directly and Indirectly Related to Oil and Gas Production in Ventura County



Impacts on State and Local Budgets

In Ventura County, the revenues attributable to the oil and gas production industry take on increased importance when considered in the context of two key factors:

- One, most revenues received by local governments (particularly for County government) are intergovernmental transfers and other dedicated revenue sources that are earmarked by law for specific purposes. The tax revenues we have identified are largely discretionary funds that can be allocated to address local government’s highest priorities.
- Two, local governments in Ventura County, like those throughout California, face major budget pressures related to employee pensions, health, social services, and other mandatory costs. In this context, every dollar counts.

Pension costs represent a major challenge. All ten cities located in Ventura County are members of the California Public Employee Retirement System (CalPERS). This is significant because CalPERS faces a major unfunded liability due to past investment shortfalls, a recently adopted reduction to its assumed future investment returns from 7.5 percent to 7.0 percent, and a variety of other factors. Based on CalPERS' most recent actuarial projections, annual pension contributions for the 10 cities combined will increase by over \$15 million between 2017-18 and 2022-23.¹⁸

Realignment and other state requirements put pressure on County costs. Ventura County employees are members of a separate pension system that does not presently face the same upward pressure on employer contributions as CalPERS members.¹⁹ The County also has a balanced budget with significant reserves.²⁰ However, the County faces future cost pressures from state mandates and state-local realignment of financial responsibilities for public safety, health, and social services programs. It will also face higher pension costs in future years if investment returns fall below its actuarial assumption of 7.5 percent per year, or if the County follows the lead of CalPERS and lowers its assumed rate of return.

Economic downturn is also a risk. Local government budgets are highly sensitive to changing economic conditions in California. A recession in the next few years would be accompanied by reduced local revenues, reduced subventions from the state (due to its own budget shortfalls) and rising costs for safety-net programs. As noted earlier, oil and gas revenues have been a stabilizing influence in past downturns, and we expect them to provide a cushion against future revenue downturns as well.

In summary, tax revenues attributable to the oil and gas industry represent an important source of discretionary funds available to local governments. The loss of these funds would have a significant impact on local budgets within the County, particularly if the economy were to slow.

¹⁸ Source: "Public Agency Actuarial Valuation Reports." California Public Employee Retirement System. <https://www.calpers.ca.gov/page/employers/actuarial-services/employer-contributions/public-agency-actuarial-valuation-reports>

¹⁹ County employees are covered by the Ventura County Employees' Retirement Association (VCERA) – a county pension system that is separate from CalPERS. See "Ventura County Employees' Retirement Association. Actuarial Valuation and Review as of June 30, 2016." <https://www.vcera.org/sites/main/files/file-attachments/actuarialvaluationjune302016.pdf>

²⁰ Source: "2017-18 Adopted Budget." County of Ventura, County Executive Office. http://vcportal.ventura.org/CEO/docs/publications/FY2017-18_Adopted_Budget.pdf

Economic Value of Ventura Oil Fields

Aside from the economic activity associated with annual production, the oil and gas reserves themselves represent a major source of wealth to Ventura County. The value of these reserves can be measured by estimating the present value of after-tax cash flows (i.e. annual revenues minus operational and investment costs) generated from all future extraction of oil from these reserves. The actual value depends on several factors, the most important of which is the future price of crude oil. To provide a reasonable range of potential values, we have performed calculations based on three price scenarios.

- A lower-end forecast that is consistent with the April 2017 projection made by the World Bank. Under this projection, crude oil prices (expressed in constant 2018 dollars) rise from then-current levels to \$59 per barrel in 2020. The oil prices remain stagnant thereafter, averaging \$60 per barrel in 2025, and just \$62 per barrel by 2030.
- A moderate-price forecast, which is an average of the EIA and World Bank projections. Under this forecast, crude oil prices (expressed in constant 2018 dollars) rise to \$66 per barrel in 2020, \$73 per barrel in 2025, and \$78 per barrel in 2030. (This forecast was used as the basis for our out-year projections of employment and tax revenues attributable to the oil and gas industry.)
- A high-end forecast, which is consistent with the EIA long-term projection made in January 2017. Under this projection, crude oil prices (expressed in constant 2018 dollars) rise from current levels to \$74 per barrel by 2020, \$86 per barrel by 2030, and \$94 per barrel by 2040.

As shown in Figure 15, we estimate that reserves would be worth \$650 million under the low-end oil price forecast, \$1.1 billion under the moderate price forecast, and \$1.6 billion under the high-end price forecast. In all cases, future local measures restricting or eliminating oil production would greatly diminish the value of these reserves. This would result in a major loss in employment and in wealth to mineral rights owners and producers in the County. It could also result in a major liability to the County if mineral rights owners and producers were to prevail in “takings” lawsuits.²¹ At a minimum the County would face millions of dollars in litigation costs defending against such lawsuits. If the plaintiffs were to prevail, the County would be required to pay the companies and owners of the mineral rights affected by the initiative the present value of the lost profits from the oil and gas that would no longer be recovered in these fields.

²¹ Under the “takings” theory, a county-imposed or voter-imposed ban on production would result in the “taking” by government of a valuable asset owned by oil companies and mineral rights owners. As compensation, the County would be required to pay the affected entities an amount equal to the present value of the lost profits from the oil and gas that would no longer be recovered from the Ventura County oil fields.

Figure 15
Estimated Value of Oil and Gas Fields in Ventura County Under Alternative Crude Oil Price Forecasts

| Crude Oil Price Forecast | Present Value of Future Oil and Gas Production In Ventura County (\$ Millions) |
|-------------------------------|-----------------------------------------------------------------------------------|
| Low (World Bank) | \$650 |
| Average of World Bank and EIA | \$1,100 |
| High (EIA) | \$1,600 |

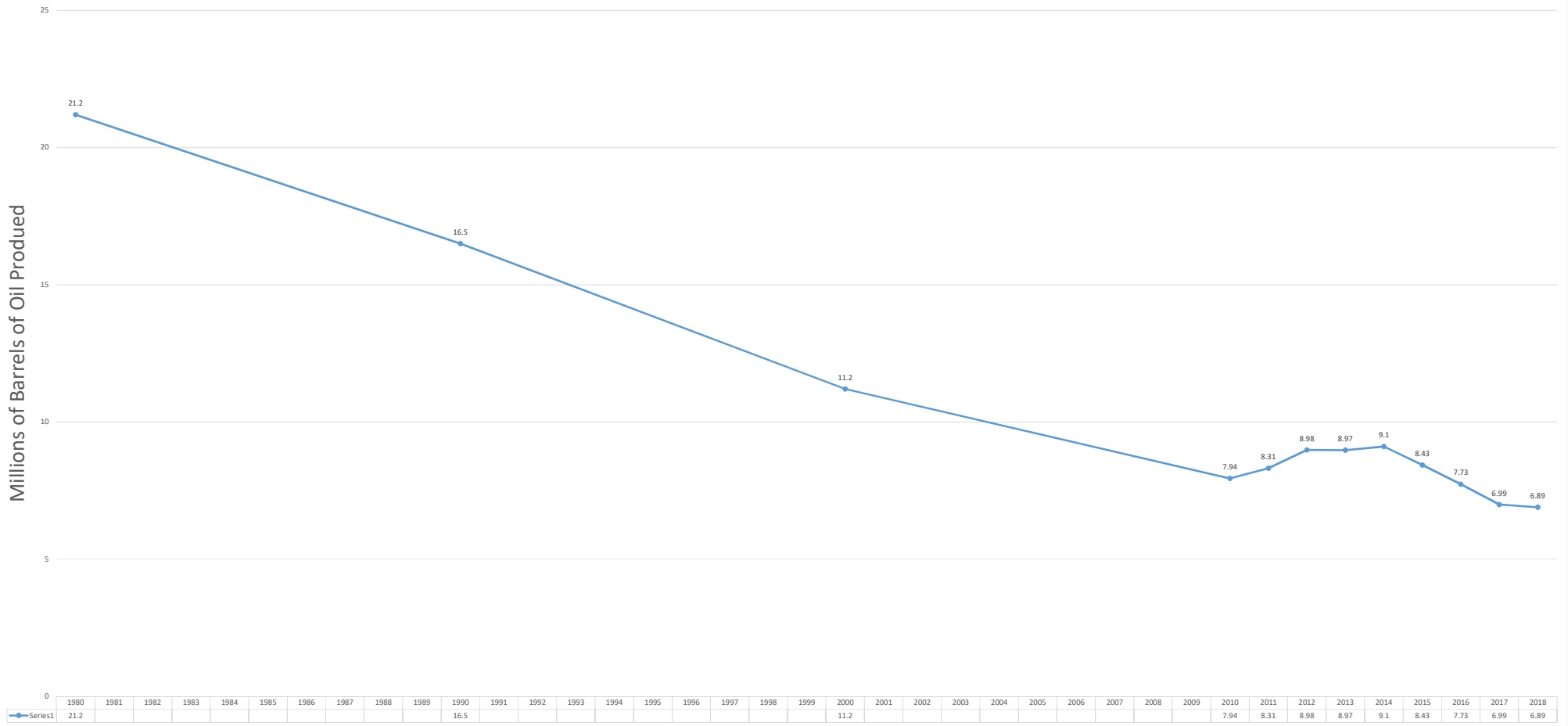
Conclusion

Oil and gas production is an important source of high-paying jobs, economic activity, and tax revenues in Ventura County. The industry has an outsized positive effect on the County's economy and tax revenues, due to the considerable amount of payments by oil producers for employee and contractor wages, and other purchases of goods and services needed to maintain oil production. We expect these contributions to rise in future years as the oil market improves. Future measures that ban oil production in the County would be counterproductive, in that they would eliminate these economic- and tax-related benefits, increase statewide dependence on oil imports from remote sources (to the detriment of the environment and California's petroleum markets) and put the County at risk of major liability associated with "takings" lawsuits.

ATTACHMENT 2

**HISTORIC VENTURA COUNTY OIL PRODUCTION DATA
1980 TO PRESENT**

District 2/Ventura County Oil Production Trend - 1980 to 2018



stored in a saltwater aquifer by means of five injection-withdrawal wells. In 1980, 273,859 barrels of LPG were injected and 166,091 barrels of LPG were withdrawn. Available LPG in storage is estimated at 568,800 barrels.

Subsidence Abatement

In 1980, through the joint efforts of the Division of Oil and Gas, the City of Long Beach, and several oil operators, an extensive program was initiated that greatly increased water injection in Fault Blocks II through VI in the Wilmington subsidence area. The increase has reversed a trend of renewed subsidence that developed over the last several years from low injection rates.

During 1980, injection in Fault Blocks II through VI increased by about 27,000 barrels per day. Projected fu-

ture injection increases for 1981 are about 63,000 barrels per day.

Additional injection activity took place through new wells, redrills, conversions, reworked wells, and stimulation activities.

The results of this increased injection are illustrated in Figure 2. The central areas of Fault Blocks II through VI have rebounded from 0.05 to 0.175 feet during the year, although a few areas of localized elevation losses remain. Rebound continues to occur in the westernmost portions of the field and, in varying degrees, in the easternmost portion.

Maximum elevation loss, about 0.20 feet on Island White (THUMS), was probably due to insufficient injection in the area. Revisions to the general waterflood plan should help to stabilize the few remaining areas where elevation losses were recorded.

DISTRICT NO. 2



Production

Oil production from the 54 active fields in District 2 was 21.2 million barrels during 1980, compared with 22.0 million barrels during 1979, a decrease of 4 percent. Ventura oil field led the district in oil production with 7.1 million barrels, followed by San Miguelito with 2.3 million barrels, and Rincon with 1.8 million barrels. The most significant changes in field performances were a 592 thousand barrel decrease in Ventura oil field, a 258 thousand barrel decrease in Rincon oil field, and 217 thousand barrel increase in Ojai oil field.

Gas production in 1980 totaled 25.9 billion cubic feet, compared with 24.8 billion cubic feet in 1979, an increase of 4 percent. Ventura, Rincon, and Ojai oil fields were the largest natural gas producers, producing 3.5, 2.9, and 2.4 billion cubic feet of gas, respectively.

Drilling Activity

During 1980, 131 new wells were drilled in District 2 compared with 107 in 1979, an increase of 22 percent. Drilling activity increased in 1980 for the third consecutive year, resulting in a cumulative 3 year increase of 82 percent.

Sespe oil field led the district with 18 wells drilled, followed by Ojai with 17, and Placerita with 9. Total footage drilled during 1980 was 654,051 feet compared with 539,080 feet in 1979. Redrill footage in 1980 totaled 45,035 feet, a 12 percent decrease from 1979.

Exploratory activity during 1980 increased 46 percent from that of 1979, with 35 prospect wells drilled, 9 of which were completed to production. Discoveries included nine new pools or extensions in Chaffee Canyon, Del Valle, Moorpark West, Ojai, Shiells Canyon, South Mountain, and Tapo Ridge fields.*

*See Oil and Gas Discoveries table.

Chaffee Canyon Field Reactivated - New Pool Discovery

In October 1980, Occidental Petroleum, Inc. discovered an oil pool in Chaffee Canyon field (an abandoned gas field) with the completion of well, "Ventura Realty" 344-1 (Photo 1). Casing was cemented at 8,493 feet and perforated from 6,904 to 7,760 feet. Initial production after formation fracturing was 314 barrels of 38.4° API gravity oil and 775 Mcf of gas per day.

Production is from Eocene strata in the upthrown block north of the Oakridge fault. The producing zone is structurally separated by the fault system from an abandoned gas well 4,500 feet to the northeast, which comprised the old gas field. This well had produced 11 million cubic feet of gas from the Pico Formation (Pliocene) at a depth of 8,712 feet.

Before the field name was officially adopted, Wiley Canyon, East Chaffee, and Los Robles had been used to identify the discovery.



Photo 1. Drilling rig on the drill site of well Occidental Petroleum, Inc. "Ventura Realty" 1, the discovery well of Chaffee Canyon oil field. Photo by Fred Taylor.

changing land-use patterns. When the sites were constructed in the mid-1950s, they were part of the undeveloped back lot of Twentieth Century Fox movie studios. High-rise office buildings and parking structures will be built on this land.

The Cities of Huntington Beach and Newport Beach were awarded an additional \$125,000 under the Methane Gas Hazards Reduction Act. The cities used the funds to install several gas vents in areas prone to methane gas seepage. Studies indicate the gas is biogenic in origin, a result of bacterial action.

Environmental Awards

On March 22, 1991, M. G. Mefferd, State Oil and Gas Supervisor, presented the division's Outstanding Oilfield Lease and Facility Maintenance Awards for 1990. Bruce Manley and Mrs. Katherine Manley accepted the award

for Manley Oil Company's wells, 1A, 2A, and 3A in Los Angeles field (Photo 1a). Lawrence Rinehart and Raymond Ringwald accepted the award for Chevron USA Inc.'s Packard Drill Site, in Beverly Hills field (Photo 1b). Harold Lang and William Buss accepted the award for the Southern California Gas Company "Block" and "Townsite" leases in Playa del Rey field (Photo 1c).

A special award for 10 years of Outstanding Oilfield Lease and Facility Maintenance was presented to Zan Harlich and Ed Sheehy, of McFarland Energy, Inc., for the "Bixby A" lease in Seal Beach oil field. The care taken to maintain the lease (then under the operation of Conoco) was first recognized by the division in 1981 (Photo 1d).

Letters of commendation were sent to 12 prior recipients of the Outstanding Oilfield Lease and Facility Maintenance Award, acknowledging their continued outstanding maintenance activities on leases in 11 oil fields in 1990 (Table 1c).

DISTRICT NO. 2

Patrick J. Kinnear, District Deputy



Production

Oil production from the 50 active oil fields in District 2 dropped from 16.9 million barrels in 1989 to **16.5 million barrels in 1990**. This represents a 65 percent production decrease from the all-time high of 46.7 million barrels of oil produced in 1958.

Eleven district fields had oil production increases in 1990. Placerita field had the largest production increase, 136,000 barrels or 24 percent, due primarily to an increase in steaming activity. The largest oil producers were Ventura field with 6.5 million barrels, San Miguelito field with 1.9 million barrels, and Sespe field with 1.2 million barrels. Although Sespe field was third in the district in total oil production, it also had the most significant decrease in oil production, down 158,000 barrels from 1989 levels.

District 2 gas production in 1990 totaled 20.5 billion cubic feet, a decrease from the 21.6 billion cubic feet produced in 1989. Fifteen of the 44 active fields that produced natural gas had production increases in 1990.

Enhanced Oil Recovery

The 1990 incremental oil production from enhanced recovery projects in the district totaled about 8 million barrels, or about 48.5 percent of the total amount of oil produced from all district fields. This amount represents an 8.1 percent increase from the 1989 total. Two new waterflood projects and one new steamflood project were approved in 1990 (Table 2a).

Waterflood

Waterflooding continued to be the dominant method of enhanced oil recovery in the district, accounting for about 7 million barrels, or 87.5 percent of the district's total incremental production. In 1990, about 80 million barrels of water was injected in 17 fields through 425 active injection wells. Ventura, Rincon, and San Miguelito fields include 34 separate waterflood projects that accounted for 95 percent of all the water injected and 87 percent of the total incremental oil produced in District 2.

DISTRICT NO. 2

Patrick J. Kinnear, District Deputy, Ventura



PROFILE FOR 2000

| | |
|----------------------------|-----------------------------|
| Active fields: | 45 |
| Oil produced: | 11.2 million barrels |
| Gas produced (net): | |
| Associated gas | 10.4 billion cubic feet |
| Nonassociated gas | 38.0 million cubic feet |
| Number of producing wells: | |
| Oil | 2,316 |
| Gas | 4 |
| Number of wells: | |
| Drilled | 7 |
| Completed | 0 |
| Redrilled | 4 |
| Plugged & abandoned | 98 |
| Number of notices filed: | |
| Drill new wells | 8 |
| Rework existing wells | 123 |
| Plug & abandon wells | 100 |
| Number of permits issued: | |
| Drill new wells | 7 |
| Rework existing wells | 109 |
| Plug & abandon wells | 98 |
| Supplementary | 77 |
| Number of inspections: | |
| Performed | 5,283 |
| Reports issued | 167 |
| Incremental oil produced: | 6.6 million barrels |
| Thermal | 1.4 million barrels |
| Waterflood | 5.3 million barrels |

PROGRAM HIGHLIGHTS:

PLUGGING AND ABANDONMENT

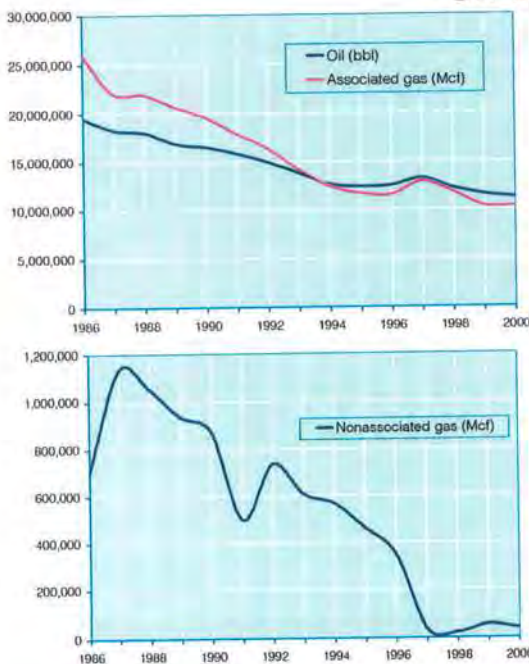
Simi Oil Field (Old Area)

Discovered in 1901, the Old Area of Simi oil field produced about 4.2 million barrels of oil and 1.7 billion cubic feet of natural gas. Condor Oil Company, the last operator of record, left as deserted 24 wells in the field. The Department of Conservation issued a formal order and plugged and abandoned the wells. A significant amount of surface equipment and oilfield junk was removed, as well.

El Rio Oil Field

After a formal order was issued to Deuel Petroleum California, Inc., the Department of Conservation abandoned well "Montalvo Ranch" 1, the last well in El Rio oil field. Cumulative production for El Rio field was 378,000 barrels of oil and 185 million cubic feet of natural gas.

OIL AND GAS PRODUCTION



| Year | Oil (bbl) | Net associated gas (Mcf) | Nonassociated gas (Mcf) |
|------|------------|--------------------------|-------------------------|
| 1986 | 19,464,896 | 25,999,227 | 703,433 |
| 1987 | 18,300,330 | 22,073,407 | 1,134,320 |
| 1988 | 17,988,439 | 21,932,484 | 1,052,330 |
| 1989 | 16,880,543 | 20,656,098 | 934,810 |
| 1990 | 16,482,881 | 19,587,640 | 872,593 |
| 1991 | 15,815,206 | 17,904,624 | 497,311 |
| 1992 | 14,895,748 | 16,402,280 | 735,201 |
| 1993 | 13,787,071 | 14,213,537 | 606,666 |
| 1994 | 12,613,164 | 12,469,762 | 564,623 |
| 1995 | 12,342,248 | 11,738,634 | 458,656 |
| 1996 | 12,486,450 | 11,597,405 | 345,159 |
| 1997 | 13,194,798 | 12,962,291 | 34,558 |
| 1998 | 12,189,842 | 11,853,939 | 21,431 |
| 1999 | 11,545,906 | 10,410,400 | 53,046 |
| 2000 | 11,212,806 | 10,371,356 | 38,040 |

**PRODUCING WELLS AND PRODUCTION
OF OIL, GAS, AND WATER BY COUNTY - 2010***

| COUNTY NAME | NUMBER OF WELLS | | | | OIL PRODUCTION (bbl) | NET GAS PRODUCTION (McF) | | | WATER PRODUCTION (bbl) |
|-----------------|-----------------|---------|---------|---------|----------------------|-----------------------------|--------------------------------|-------------|------------------------|
| | OIL | | GAS | | | ASSOCIATED (from oil zones) | NONASSOCIATED (from gas zones) | TOTAL | |
| | P R O D | S H T N | P R O D | S H T N | | | | | |
| Alameda | 6 | 1 | 0 | 0 | 16,035 | 0 | 0 | 0 | 49,038 |
| Butte | 0 | 0 | 9 | 2 | 0 | 0 | 46,611 | 46,611 | 143 |
| Colusa | 0 | 0 | 233 | 115 | 0 | 0 | 9,110,310 | 9,110,310 | 109,171 |
| Contra Costa | 0 | 0 | 26 | 19 | a/ 0 | 0 | 1,955,277 | 1,955,277 | 19,750 |
| Fresno | 1,950 | 1,489 | 2 | 3 | 6,169,987 | 981,192 | 7,122 | 988,314 | 76,824,000 |
| Glenn | 0 | 0 | 270 | 62 | 0 | 0 | 11,773,101 | 11,773,101 | 106,458 |
| Humboldt | 0 | 3 | 32 | 20 | 0 | 0 | 786,279 | 786,279 | 9,657 |
| Kern | 41,537 | 15,198 | 181 | 119 | b/ 148,097,816 | 159,958,314 | 3,197,072 | 163,155,386 | 1,716,027,843 |
| Kings | 159 | 167 | 1 | 1 | 101,382 | 134,132 | 129,342 | 263,474 | 282,870 |
| Lassen | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| Los Angeles | 3,276 | 1,506 | 9 | 19 | c/ 23,894,597 | 16,567,498 | 100,959 | 16,668,457 | 768,783,059 |
| Madera | 0 | 0 | 12 | 20 | 0 | 0 | 1,742,035 | 1,742,035 | 9,213 |
| Merced | 0 | 0 | 2 | 1 | 0 | 0 | 252,940 | 252,940 | 26 |
| Monterey | 535 | 645 | 0 | 0 | 6,209,878 | 1,584,539 | 0 | 1,584,539 | 113,725,858 |
| Orange | 1,036 | 515 | 0 | 0 | 4,401,871 | 1,818,847 | 0 | 1,818,847 | 73,371,602 |
| Riverside | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Sacramento | 0 | 0 | 128 | 82 | d/ 0 | 0 | 11,464,339 | 11,464,339 | 128,552 |
| San Benito | 21 | 14 | 2 | 4 | 8,536 | 8,176 | 12,201 | 20,377 | 121,563 |
| San Bernardino | 18 | 20 | 0 | 0 | 8,413 | 60 | 0 | 60 | 1,316 |
| San Joaquin | 0 | 0 | 62 | 83 | 0 | 0 | 4,155,836 | 4,155,836 | 90,591 |
| San Luis Obispo | 135 | 218 | 0 | 0 | 486,200 | -1,954 | 0 | -1,954 | 7,779,480 |
| San Mateo | 14 | 9 | 0 | 0 | 2,551 | 0 | 0 | 0 | 4,528 |
| Santa Barbara | 935 | 1,192 | 2 | 2 | e/ 3,407,854 | 2,616,555 | 79,828 | 2,696,383 | 83,738,141 |
| Santa Clara | 10 | 3 | 0 | 0 | 22,844 | 5,760 | 0 | 5,760 | 18,473 |
| Solano | 0 | 0 | 140 | 134 | f/ 0 | 0 | 9,896,949 | 9,896,949 | 221,543 |
| Stanislaus | 0 | 0 | 2 | 0 | 0 | 0 | 518,738 | 518,738 | 0 |
| Sutter | 0 | 0 | 307 | 120 | 0 | 0 | 12,996,685 | 12,996,685 | 137,277 |
| Tehama | 0 | 0 | 120 | 39 | 0 | 0 | 2,150,715 | 2,150,715 | 112,647 |
| Tulare | 70 | 9 | 0 | 13 | 48,717 | 0 | 0 | 0 | 4,082,952 |
| Ventura | 1,692 | 1,277 | 0 | 4 | 7,944,456 | 7,951,650 | 0 | 7,951,650 | 60,711,045 |
| Yolo | 0 | 0 | 26 | 65 | 0 | 0 | 881,359 | 881,359 | 15,806 |
| Yuba | 0 | 0 | 1 | 0 | 0 | 0 | 2,334 | 2,334 | 0 |
| STATE TOTALS | 51,394 | 22,269 | 1,567 | 936 | 200,821,137 | 191,624,769 | 71,260,032 | 262,884,801 | 2,906,482,602 |

- * Does not include federal OCS figures.
a/ Produced 1,402 barrels of condensate from gas fields or zones.
b/ Produced 30,936 barrels of condensate from gas fields or zones.
c/ Produced 5,004 barrels of condensate from gas fields or zones.
d/ Produced 18,837 barrels of condensate from gas fields or zones.
e/ Produced 1,916 barrels of condensate from gas fields or zones.
f/ Produced 13,936 barrels of condensate from gas fields or zones.

**PRODUCING WELLS AND PRODUCTION
OF OIL, GAS, AND WATER BY COUNTY - 2011***

| COUNTY NAME | NUMBER OF WELLS | | OIL PRODUCTION (bbl)* | NET GAS PRODUCTION (Mcf) | | | WATER PRODUCTION (bbl) |
|-----------------|-----------------|---------|-----------------------|-----------------------------|--------------------------------|-------------|------------------------|
| | ACTIVE | SHUT IN | | ASSOCIATED (from oil zones) | NONASSOCIATED (from gas zones) | TOTAL | |
| Alameda | 6 | 1 | 14,858 | 0 | 0 | 0 | 50,360 |
| Butte | 9 | 2 | 0 | 0 | 41,787 | 41,787 | 223 |
| Colusa | 230 | 123 | 0 | 0 | 11,841,247 | 11,841,247 | 110,208 |
| Contra Costa | 27 | 18 | 1,305 | 0 | 1,156,434 | 1,156,434 | 13,807 |
| Fresno | 1,963 | 1,554 | 6,048,407 | 954,057 | 0 | 954,057 | 75,196,412 |
| Glenn | 273 | 55 | 0 | 0 | 9,997,205 | 9,997,205 | 98,872 |
| Humboldt | 28 | 27 | 0 | 0 | 641,799 | 641,799 | 7,475 |
| Kern | 42,159 | 15,691 | 142,991,052 | 148,259,992 | 3,115,332 | 151,375,324 | 1,728,794,462 |
| Kings | 160 | 176 | 110,026 | 380,093 | 302,043 | 682,136 | 469,644 |
| Los Angeles | 3,751 | 1,564 | 23,730,151 | 15,095,858 | 292,027 | 15,387,885 | 780,176,314 |
| Madera | 12 | 19 | 0 | 0 | 1,430,711 | 1,430,711 | 6,818 |
| Merced | 1 | 2 | 0 | 0 | 81,121 | 81,121 | 0 |
| Monterey | 609 | 568 | 7,125,968 | 1,319,481 | 0 | 1,319,481 | 119,527,903 |
| Orange | 1,036 | 484 | 4,220,714 | 1,965,658 | 0 | 1,965,658 | 70,721,268 |
| Sacramento | 128 | 79 | 19,187 | 0 | 8,348,464 | 8,348,464 | 92,362 |
| San Benito | 22 | 18 | 5,196 | 26,154 | 12,138 | 38,292 | 23,480 |
| San Bernardino | 18 | 20 | 12,427 | 70 | 0 | 70 | 3,229 |
| San Joaquin | 55 | 90 | 0 | 0 | 3,209,005 | 3,209,005 | 63,101 |
| San Luis Obispo | 130 | 217 | 442,903 | 91,850 | 0 | 91,850 | 7,573,428 |
| San Mateo | 11 | 12 | 1,355 | 4,662 | 0 | 4,662 | 3,090 |
| Santa Barbara | 1,083 | 1,072 | 3,642,688 | 2,885,009 | 583 | 2,885,592 | 93,432,074 |
| Santa Clara | 13 | 2 | 29,212 | 5,467 | 0 | 5,467 | 23,828 |
| Solano | 122 | 145 | 13,418 | 0 | 6,991,056 | 6,991,056 | 109,550 |
| Stanislaus | 2 | 0 | 0 | 0 | 632,737 | 632,737 | 54,456 |
| Sutter | 299 | 121 | 2 | 0 | 13,168,881 | 13,168,881 | 146,491 |
| Tehama | 121 | 42 | 0 | 0 | 2,392,799 | 2,392,799 | 35,704 |
| Tulare | 74 | 20 | 48,584 | 0 | 0 | 0 | 4,504,335 |
| Ventura | 1,708 | 1,278 | 8,308,059 | 7,676,656 | 0 | 7,676,656 | 63,477,467 |
| Yolo | 25 | 62 | 362 | 0 | 386,332 | 386,332 | 2,716 |
| Yuba | 1 | 0 | 0 | 0 | 1,816 | 1,816 | 0 |
| STATE TOTAL | 54,076 | 23,462 | 196,765,874 | 178,665,007 | 64,043,517 | 242,708,524 | 2,944,719,077 |

* Includes condensate from gas fields, gas zones and gas storage wells.

**WELL COUNTS AND PRODUCTION OF OIL, GAS,
AND WATER BY COUNTY - 2012**

| County | Well Count * | | Oil Production (bb) ** | Net Gas Production | | | Water Production (bb) |
|-----------------|---------------|---------------|------------------------|----------------------|-------------------------|--------------------|-----------------------|
| | Active | Inactive | | Associated Gas (Mcf) | Nonassociated Gas (Mcf) | Total Gas (Mcf) | |
| Alameda. | 6 | 1 | 14,601 | 0 | 0 | 0 | 46,052 |
| Butte. | 26 | 1 | 0 | 0 | 51,839 | 51,839 | 420 |
| Colusa | 225 | 129 | 0 | 0 | 9,886,381 | 9,886,381 | 104,561 |
| Contra Costa | 45 | 17 | 454 | 0 | 843,518 | 843,518 | 8,764 |
| Fresno | 1,946 | 1,571 | 5,992,763 | 714,642 | 357 | 714,999 | 66,040,632 |
| Glenn. | 259 | 60 | 0 | 0 | 8,521,530 | 8,521,530 | 80,390 |
| Humboldt | 26 | 29 | 0 | 0 | 638,124 | 638,124 | 7,420 |
| Kern | 42,875 | 15,803 | 141,481,290 | 160,638,575 | 2,904,518 | 163,543,093 | 1,828,374,391 |
| Kings | 175 | 188 | 137,127 | 190,197 | 153,748 | 343,945 | 908,558 |
| Los Angeles | 3,690 | 1,552 | 24,130,729 | 18,275,394 | 241,297 | 18,516,691 | 798,857,241 |
| Madera | 23 | 18 | 0 | 0 | 967,873 | 967,873 | 1,656 |
| Merced | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| Monterey | 657 | 562 | 7,433,840 | 1,204,142 | 0 | 1,204,142 | 116,288,726 |
| Orange | 1,041 | 464 | 4,383,546 | 2,006,620 | 0 | 2,006,620 | 79,058,939 |
| Sacramento | 112 | 100 | 21,085 | 0 | 8,796,121 | 8,796,121 | 141,912 |
| San Benito | 18 | 23 | 5,007 | 46,929 | 7,155 | 54,084 | 1,669 |
| San Bernardino | 20 | 18 | 10,595 | 111 | 0 | 111 | 2,671 |
| San Joaquin | 157 | 94 | 184 | 0 | 2,970,015 | 2,970,015 | 67,689 |
| San Luis Obispo | 120 | 228 | 414,582 | 858,768 | 0 | 858,768 | 7,241,378 |
| San Mateo | 10 | 13 | 1,294 | 4,675 | 0 | 4,675 | 2,561 |
| Santa Barbara | 1,170 | 1,042 | 4,595,018 | 3,274,524 | 101 | 3,274,625 | 105,330,847 |
| Santa Clara | 13 | 2 | 40,006 | 39,598 | 0 | 39,598 | 24,765 |
| Solano | 126 | 148 | 9,932 | 0 | 4,796,836 | 4,796,836 | 89,955 |
| Stanislaus | 2 | 0 | 0 | 0 | 616,623 | 616,623 | 32,201 |
| Sutter | 289 | 130 | 0 | 0 | 10,499,715 | 10,499,715 | 114,525 |
| Tehama | 111 | 39 | 0 | 0 | 1,727,083 | 1,727,083 | 16,436 |
| Tulare | 75 | 20 | 48,142 | 0 | 0 | 0 | 3,954,749 |
| Ventura | 1,743 | 1,263 | 8,977,459 | 8,411,316 | 8,411,316 | 16,822,632 | 66,299,114 |
| Yolo | 25 | 56 | 578 | 0 | 229,860 | 229,860 | 2,314 |
| Yuba | 1 | 0 | 0 | 0 | 1,006 | 1,006 | 0 |
| TOTAL | 54,986 | 23,574 | 197,698,232 | 195,665,491 | 62,265,016 | 257,930,507 | 3,073,100,536 |

* includes well count from Oil & Gas (OG), Dry Gas (DG) and Gas Storage (GS)

** Includes condensate produced from from Dry Gas (DG) and Gas Storage (GS)

**WELL COUNTS AND PRODUCTION OF OIL, GAS
AND WATER BY COUNTY - 2013**

| County | Well Count * | | Oil Production (bbl)** | Net Gas Production | | | Water Production (bbl) |
|-----------------|---------------|---------------|------------------------------|-------------------------|----------------------------|--------------------|------------------------------|
| | Active | Inactive | | Associated Gas (Mcf) | Nonassociated Gas (Mcf) | Total Gas (Mcf) | |
| Alameda | 6 | 1 | 12,088 | 0 | 0 | 0 | 43,395 |
| Butte | 9 | 1 | 0 | 0 | 43,290 | 43,290 | 114 |
| Colusa | 210 | 146 | 0 | 0 | 6,609,876 | 6,609,876 | 89,600 |
| Contra Costa | 18 | 20 | 223 | 0 | 490,680 | 490,680 | 7,324 |
| Fresno | 1,963 | 1,628 | 5,941,962 | 509,279 | 0 | 509,279 | 60,980,437 |
| Glenn | 244 | 73 | 0 | 0 | 5,974,377 | 5,974,377 | 61,446 |
| Humboldt | 24 | 31 | 0 | 0 | 545,048 | 545,048 | 8,183 |
| Kern | 43,568 | 15,863 | 141,585,620 | 137,798,323 | 2,575,574 | 140,373,897 | 1,789,002,860 |
| Kings | 167 | 173 | 117,315 | 94,474 | 0 | 94,474 | 908,828 |
| Lassen | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| Los Angeles | 3,750 | 1,575 | 24,662,715 | 13,245,850 | 22,814 | 13,268,664 | 845,332,492 |
| Madera | 8 | 14 | 0 | 0 | 991,308 | 991,308 | 3,866 |
| Merced | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Monterey | 691 | 531 | 7,412,829 | 1,122,834 | 0 | 1,122,834 | 112,847,620 |
| Orange | 1,046 | 444 | 4,487,945 | 2,088,906 | 0 | 2,088,906 | 90,686,170 |
| Riverside | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| Sacramento | 97 | 112 | 22,283 | 0 | 8,396,355 | 8,396,355 | 234,328 |
| San Benito | 20 | 21 | 5,676 | 4,604 | 9,246 | 13,850 | 57,601 |
| San Bernardino | 26 | 12 | 12,508 | 290 | 0 | 290 | 5,703 |
| San Joaquin. | 46 | 98 | 181 | 0 | 2,599,486 | 2,599,486 | 45,287 |
| San Luis Obispo | 190 | 155 | 420,733 | 0 | 0 | 0 | 8,504,905 |
| San Mateo | 6 | 17 | 716 | 1,188 | 0 | 1,188 | 190 |
| Santa Barbara | 1,208 | 952 | 6,025,389 | 3,973,238 | 29 | 3,973,267 | 115,239,152 |
| Santa Clara | 13 | 2 | 35,510 | 8,436 | 0 | 8,436 | 21,560 |
| Solano | 96 | 144 | 6,346 | 0 | 3,474,851 | 3,474,851 | 71,088 |
| Stanislaus | 1 | 1 | 0 | 0 | 482,553 | 482,553 | 31,744 |
| Sutter | 265 | 156 | 0 | 0 | 7,619,771 | 7,619,771 | 82,007 |
| Tehama | 104 | 46 | 0 | 0 | 1,367,795 | 1,367,795 | 20,952 |
| Tulare | 80 | 19 | 49,021 | 0 | 0 | 0 | 4,590,108 |
| Ventura | 1,755 | 1,277 | 8,973,076 | 8,275,223 | 0 | 8,275,223 | 66,705,153 |
| Yolo | 15 | 56 | 297 | 0 | 163,880 | 163,880 | 3,672 |
| Yuba | 1 | 0 | 0 | 0 | 793 | 793 | 0 |
| TOTAL | 55,627 | 23,580 | 199,772,433 | 167,122,645 | 41,367,726 | 208,490,371 | 3,095,585,785 |

Produced 7/25/14

* Includes well count from Oil & Gas (OG), Dry Gas (DG) and Gas Storage (GS).

** Includes condensate produced from Dry Gas (DG) and Gas Storage (GS).

WELL COUNT AND PRODUCTION OF OIL, GAS AND WATER BY COUNTY - 2014

| County | Well Count* | | Oil Production (bbl)** | Net Gas Production | | | Water Production (bbl) |
|-----------------|---------------|---------------|------------------------------|-------------------------|-----------------------------|--------------------|------------------------------|
| | Active | Inactive | | Associated Gas (Mcf) | Non-associated Gas (Mcf) | Total Gas (Mcf) | |
| Alameda | 6 | 1 | 12,538 | 0 | 0 | 0 | 47,614 |
| Butte | 26 | 1 | 0 | 0 | 24,125 | 24,125 | 1,718 |
| Colusa | 209 | 158 | 0 | 0 | 6,030,785 | 6,030,785 | 76,357 |
| Contra Costa | 38 | 18 | 146 | 0 | 369,599 | 369,599 | 8,742 |
| Fresno | 2,098 | 1,578 | 6,557,889 | 543,118 | 2,634 | 545,752 | 78,126,043 |
| Glenn | 229 | 95 | 0 | 0 | 4,871,650 | 4,871,650 | 80,391 |
| Humboldt | 25 | 32 | 0 | 0 | 532,057 | 532,057 | 8,913 |
| Kern | 44,518 | 15,908 | 145,697,818 | 158,889,037 | 2,327,330 | 161,216,367 | 1,883,838,717 |
| Kings | 185 | 205 | 165,080 | 127,244 | 0 | 127,244 | 903,937 |
| Lassen | | 5 | 0 | 0 | 0 | 0 | 0 |
| Los Angeles | 3,993 | 1,633 | 24,449,696 | 14,888,764 | 32,775 | 14,921,539 | 867,947,666 |
| Madera | 19 | 18 | 0 | 0 | 839,076 | 839,076 | 69,084 |
| Merced | | 2 | 0 | 0 | 0 | 0 | 0 |
| Monterey | 747 | 497 | 7,713,512 | 1,015,927 | 0 | 1,015,927 | 117,314,411 |
| Orange | 1,043 | 445 | 3,813,457 | 2,038,032 | 0 | 2,038,032 | 79,679,485 |
| Riverside | | 4 | 0 | 0 | 0 | 0 | 0 |
| Sacramento | 95 | 111 | 17,793 | 0 | 7,146,233 | 7,146,233 | 250,357 |
| San Benito | 18 | 24 | 11,641 | 14,212 | 0 | 14,212 | 78,441 |
| San Bernardino | 27 | 11 | 11,655 | 500 | 0 | 500 | 9,207 |
| San Joaquin | 144 | 86 | 0 | 0 | 2,283,516 | 2,283,516 | 93,832 |
| San Luis Obispo | 231 | 140 | 471,831 | 829,322 | 0 | 829,322 | 10,564,853 |
| San Mateo | 10 | 3 | 621 | 343 | 0 | 343 | 125 |
| Santa Barbara | 1,193 | 969 | 5,751,663 | 4,428,768 | 0 | 4,428,768 | 120,466,156 |
| Santa Clara | 13 | 2 | 32,284 | 30,712 | 0 | 30,712 | 25,261 |
| Solano | 103 | 146 | 5,985 | 0 | 2,889,266 | 2,889,266 | 72,509 |
| Stanislaus | 1 | 1 | 0 | 0 | 13,558 | 13,558 | 0 |
| Sutter | 247 | 170 | 1 | 0 | 6,004,898 | 6,004,898 | 88,440 |
| Tehama | 104 | 47 | 0 | 0 | 1,238,849 | 1,238,849 | 24,819 |
| Tulare | 78 | 21 | 46,974 | 0 | 0 | 0 | 4,723,798 |
| Ventura | 1,760 | 1,271 | 9,101,060 | 8,558,641 | 0 | 8,558,641 | 63,263,842 |
| Yolo | 26 | 54 | 252 | 0 | 223,139 | 223,139 | 3,396 |
| Yuba | 1 | 0 | 0 | 0 | 735 | 735 | 0 |
| TOTAL | 57,187 | 23,656 | 203,861,896 | 191,364,620 | 34,830,225 | 226,194,845 | 3,227,768,114 |

* Includes Oil & Gas (OG), Dry Gas (DG) and Gas Storage (GS)

** Includes condensate from Dry Gas (DG) and Gas Storage (GS)

**WELL COUNT AND PRODUCTION OF
OIL, GAS AND WATER BY COUNTY - 2015**

| County | Well Count* | | Oil Produced (bbls)** | Net Gas Production | | | Water Produced (bbls) |
|-----------------|---------------|---------------|-----------------------|----------------------|--------------------------|---------------------|-----------------------|
| | Active | Inactive | | Associated Gas (Mcf) | Non Associated Gas (Mcf) | Total Net Gas (Mcf) | |
| Alameda | 6 | 2 | 9,687 | 847 | 0 | 847 | 30,156 |
| Butte | 26 | 1 | 0 | 0 | 11,054 | 11,054 | 87 |
| Colusa | 188 | 176 | 0 | 0 | 4,157,952 | 4,157,952 | 59,722 |
| Contra Costa | 38 | 23 | 93 | 0 | 333,759 | 333,759 | 7,418 |
| Fresno | 2,113 | 1,597 | 7,232,606 | 477,027 | 3,381 | 480,408 | 81,983,297 |
| Glenn | 235 | 96 | 0 | 0 | 4,010,048 | 4,010,048 | 81,658 |
| Humboldt | 25 | 33 | 0 | 0 | 468,543 | 468,543 | 8,700 |
| Kern | 44,284 | 16,643 | 144,472,957 | 129,102,663 | 1,842,826 | 130,945,489 | 1,991,303,876 |
| Kings | 181 | 207 | 271,000 | 219,930 | 0 | 219,930 | 706,767 |
| Lassen | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| Los Angeles | 3,885 | 1,736 | 23,808,695 | 17,015,642 | 225,814 | 17,241,456 | 913,784,022 |
| Madera | 18 | 18 | 0 | 0 | 637,923 | 637,923 | 1,070 |
| Merced | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Monterey | 729 | 522 | 8,100,648 | 1,022,578 | 0 | 1,022,578 | 125,737,028 |
| Orange | 1,030 | 455 | 4,667,014 | 2,530,180 | 0 | 2,530,180 | 105,367,969 |
| Riverside | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| Sacramento | 92 | 114 | 11,805 | 0 | 5,558,920 | 5,558,920 | 211,853 |
| San Benito | 20 | 25 | 14,813 | 18,791 | 0 | 18,791 | 102,474 |
| San Bernardino | 25 | 13 | 8,000 | 695 | 0 | 695 | 7,479 |
| San Joaquin | 141 | 88 | 0 | 0 | 1,829,324 | 1,829,324 | 87,139 |
| San Luis Obispo | 231 | 129 | 536,845 | 174,226 | 0 | 174,226 | 11,533,722 |
| San Mateo | 2 | 11 | 75 | 0 | 0 | 0 | 3 |
| Santa Barbara | 1,129 | 1,028 | 4,338,695 | 3,065,153 | 1,158 | 3,066,311 | 113,516,855 |
| Santa Clara | 13 | 2 | 26,784 | 8,363 | 0 | 8,363 | 26,243 |
| Solano | 99 | 146 | 4,707 | 0 | 2,559,654 | 2,559,654 | 66,004 |
| Stanislaus | 1 | 1 | 0 | 0 | 61,332 | 61,332 | 35 |
| Sutter | 237 | 182 | 0 | 0 | 4,833,949 | 4,833,949 | 71,961 |
| Tehama | 99 | 51 | 0 | 0 | 1,239,748 | 1,239,748 | 23,813 |
| Tulare | 75 | 15 | 39,237 | 0 | 0 | 0 | 3,783,973 |
| Ventura | 1,705 | 1,303 | 8,428,402 | 8,231,282 | 0 | 8,231,282 | 59,853,491 |
| Yolo | 25 | 56 | 170 | 0 | 171,736 | 171,736 | 2,476 |
| Yuba | 1 | 0 | 0 | 0 | 1,131 | 1,131 | 0 |
| TOTAL | 56,653 | 24,684 | 201,972,233 | 161,867,377 | 27,948,252 | 189,815,629 | 3,408,359,291 |

*Includes Oil & Gas (OG), Dry Gas (DG) and Gas Storage (GS)

** Includes condensate from Dry Gas (DG) and Gas Storage (GS)



**State of California Department of Conservation
Division of Oil, Gas and Geothermal Resources**

WELL COUNT AND PRODUCTION OF OIL, GAS, AND WATER BY COUNTY – 2016

| County | Well Count* | | Oil Produced (bbl)** | Net Gas Production | | | Water Produced (bbl) |
|-----------------|--------------|--------------|----------------------|----------------------|--------------------------|---------------------|----------------------|
| | Active | In Active | | Associated Gas (Mcf) | Non Associated Gas (Mcf) | Total Net Gas (Mcf) | |
| Alameda | 6 | 2 | 9,543 | 953 | 0 | 953 | 21,746 |
| Butte | 20 | 7 | 0 | 0 | 348 | 348 | 0 |
| Colusa | 179 | 179 | 5 | 0 | 3,289,568 | 3,289,568 | 45,476 |
| Contra Costa | 28 | 28 | 59 | 0 | 130,892 | 130,892 | 845 |
| Fresno | 1,975 | 1,706 | 6,850,958 | 517,810 | 0 | 517,810 | 83,038,255 |
| Glenn | 213 | 97 | 0 | 0 | 3,106,674 | 3,106,674 | 60,030 |
| Humboldt | 26 | 29 | 0 | | 438,045 | 438,045 | 9,250 |
| Kern | 42,045 | 18,297 | 134,114,693 | 111,238,469 | 1,776,471 | 113,014,940 | 1,883,756,057 |
| Kings | 167 | 178 | 150,289 | 74,538 | 1,459 | 75,997 | 728,021 |
| Lassen | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| Los Angeles | 3,468 | 1,850 | 21,323,159 | 9,345,430 | 181,813 | 9,527,243 | 889,587,148 |
| Madera | 18 | 18 | 0 | 0 | 506,607 | 506,607 | 1,100 |
| Merced | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Monterey | 67 | 464 | 8,188,312 | 1,057,795 | 0 | 1,057,795 | 122,261,786 |
| Orange | 980 | 488 | 4,332,500 | 2,522,193 | 1,738,627 | 4,260,820 | 101,193,139 |
| Riverside | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| Sacramento | 78 | 128 | 9,660 | 0 | 4,281,529 | 4,281,529 | 219,556 |
| San Benito | 21 | 24 | 15,231 | 20,858 | 0 | 20,858 | 49,583 |
| San Bernardino | 24 | 14 | 8,002 | 720 | 0 | 720 | 8,635 |
| San Joaquin | 140 | 91 | 0 | 0 | 1,499,649 | 1,499,649 | 66,079 |
| San Luis Obispo | 219 | 131 | 610,031 | 588,024 | 0 | 588,024 | 11,278,093 |
| San Mateo | 2 | 21 | 80 | 0 | 0 | 0 | 6 |
| Santa Barbara | 1,037 | 1,121 | 3,258,284 | 2,263,716 | 120,671 | 2,384,387 | 94,387,530 |
| Santa Clara | 14 | 1 | 24,557 | 9,013 | 0 | 9,013 | 31,535 |
| Solano | 89 | 155 | 2,818 | 0 | 2,163,316 | 2,163,316 | 90,043 |
| Stanislaus | 1 | 1 | 0 | 0 | 31,733 | 31,733 | 49 |
| Sutter | 223 | 193 | 0 | 0 | 4,043,575 | 4,043,575 | 49,432 |
| Tehama | 96 | 54 | 0 | 0 | 831,543 | 831,543 | 16,449 |
| Tulare | 56 | 34 | 32,274 | 0 | 0 | 0 | 3,196,124 |
| Ventura | 3,224 | 2,484 | 7,729,845 | 4,049,625 | 0 | 4,049,625 | 55,766,230 |
| Yolo | 24 | 54 | 163 | 0 | 172,936 | 172,936 | 2,677 |
| Yuba | 1 | 0 | 0 | 0 | 514 | 514 | 0 |

**WELL COUNT AND PRODUCTION OF OIL, GAS, AND WATER
BY COUNTY
2017**

| County | Well Count * | | Oil Produced (bbl) | Net Gas Production | | | Water Produced (bbl) |
|-----------------|---------------|---------------|--------------------|----------------------|--------------------------|---------------------|----------------------|
| | Active | Inactive | | Associated Gas (Mcf) | Non Associated Gas (Mcf) | Total Net Gas (Mcf) | |
| Alameda | 6 | 2 | 8,715 | 644 | 0 | 644 | 24,641 |
| Butte | 16 | 11 | 0 | 0 | 0 | 0 | 228 |
| Colusa | 168 | 187 | 0 | 0 | 2,896,306 | 2,896,306 | 48,338 |
| Contra Costa | 22 | 31 | 55 | 0 | 81,830 | 81,830 | 527 |
| Fresno | 1,984 | 1,713 | 7,067,233 | 513,253 | 0 | 513,253 | 84,628,645 |
| Glenn | 200 | 108 | 0 | 0 | 3,282,766 | 3,282,766 | 64,718 |
| Humboldt | 26 | 29 | 0 | 0 | 417,445 | 417,445 | 7,073 |
| Kern | 40,480 | 19,827 | 123,752,181 | 113,176,503 | 1,467,923 | 114,644,426 | 1,814,628,049 |
| Kings | 145 | 201 | 116,331 | 94,504 | 0 | 94,504 | 452,863 |
| Lassen | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| Los Angeles | 3,359 | 1911 | 19,814,335 | 9,664,202 | 6,971 | 9,671,173 | 872,605,322 |
| Madera | 18 | 14 | 0 | 0 | 407,416 | 407,416 | 1,447 |
| Merced | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Monterey | 690 | 413 | 7,476,885 | 1,015,500 | 0 | 1,015,500 | 133,743,294 |
| Orange | 948 | 521 | 3,942,372 | 1,834,760 | 0 | 1,834,760 | 97,278,397 |
| Riverside | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| Sacramento | 90 | 119 | 9,543 | 0 | 3,783,160 | 3,783,160 | 210,687 |
| San Benito | 19 | 28 | 749,700 | 6,743,776 | 0 | 6,743,776 | 1,409,283 |
| San Bernadino | 18 | 20 | 7,865 | 5,130 | 0 | 5,130 | 3,496 |
| San Joaquin | 134 | 96 | 0 | 0 | 1,341,882 | 1,341,882 | 64,513 |
| San Luis Obispo | 216 | 131 | 604,308 | 490,570 | 0 | 490,570 | 11,323,809 |
| San Mateo | 2 | 22 | 52 | 0 | 0 | 0 | 0 |
| Santa Barbara | 974 | 1,190 | 3,469,843 | 2,388,151 | 448 | 2,388,599 | 95,115,827 |
| Santa Clara | 14 | 1 | 23,656 | 1,014 | 0 | 1,014 | 29,832 |
| Solano | 87 | 148 | 1,993 | 0 | 1,701,755 | 1,701,755 | 55,853 |
| Stanislaus | 1 | 1 | 0 | 0 | 29 | 29 | 0 |
| Sutter | 220 | 195 | 0 | 0 | 4,052,655 | 4,052,655 | 60,641 |
| Tehama | 87 | 65 | 0 | 0 | 747,455 | 747,455 | 10,118 |
| Tulare | 59 | 28 | 28,515 | 0 | 0 | 0 | 2,839,638 |
| Ventura | 1,383 | 1,636 | 6,988,161 | 6,503,659 | 0 | 6,503,659 | 53,058,123 |
| Yolo | 23 | 55 | 79 | 0 | 81,090 | 81,090 | 340 |
| Yuba | 1 | 0 | 0 | 0 | 874 | 874 | 0 |
| Total | 51,390 | 28,715 | 174,061,822 | 142,431,666 | 20,270,005 | 162,701,671 | 3,167,665,702 |

Oil, Gas, and Water Production and Well Count by County - 2018

| County Name | Well Count | | Oil Production | Gas Production | | | Water Production |
|------------------------|---------------|---------------|---------------------------------|-------------------------------------|--------------------------------|-----------------------|----------------------|
| | Active | In Active | Oil & Condensate Produced (bbl) | Associated Gross Gas Produced (Mcf) | Non Associated Gross Gas (Mcf) | Total Gross Gas (Mcf) | Water Produced (bbl) |
| Alameda | 6 | 2 | 4,918 | 456 | 0 | 456 | 13,190 |
| Butte | 17 | 10 | 0 | 0 | 0 | 0 | 699 |
| Colusa | 159 | 199 | 1,142 | 0 | 2,661,107 | 2,661,107 | 61,266 |
| Contra Costa | 22 | 35 | 22,553 | 2,631 | 80,632 | 83,262 | 43,079 |
| Fresno | 2,013 | 1,821 | 6,827,497 | 705,201 | 0 | 705,201 | 74,936,305 |
| Glenn | 199 | 114 | 0 | 0 | 2,775,534 | 2,775,534 | 63,582 |
| Humboldt | 24 | 31 | 0 | 0 | 391,790 | 391,790 | 6,802 |
| Kern | 41,332 | 21,771 | 113,141,827 | 139,402,486 | 1,159,911 | 140,562,397 | 1,870,847,938 |
| Kings | 128 | 225 | 110,602 | 101,314 | 0 | 101,314 | 453,262 |
| Lassen | - | 6 | 0 | 0 | 0 | 0 | 0 |
| Los Angeles | 2,750 | 1,757 | 12,033,058 | 7,117,546 | 10,151 | 7,127,697 | 489,047,440 |
| Los Angeles Offshore | 1,005 | 300 | 6,567,527 | 2,458,907 | 0 | 2,458,907 | 352,879,812 |
| Madera | 18 | 16 | 0 | 0 | 335,982 | 335,982 | 19,489 |
| Merced | - | 2 | 0 | 0 | 0 | 0 | 0 |
| Monterey | 753 | 468 | 8,397,784 | 986,321 | 0 | 986,321 | 142,368,128 |
| Orange | 859 | 511 | 2,593,489 | 1,054,389 | 0 | 1,054,389 | 55,250,791 |
| Orange Offshore | 135 | 107 | 1,136,681 | 475,002 | 0 | 475,002 | 38,351,110 |
| Riverside | - | 4 | 0 | 0 | 0 | 0 | 0 |
| Sacramento | 87 | 127 | 13,069 | 0 | 3,804,460 | 3,804,460 | 212,485 |
| San Benito | 18 | 29 | 15,462 | 23,189 | 0 | 23,189 | 70,670 |
| San | 26 | 12 | 10,621 | 27,410 | 0 | 27,410 | 1,904 |
| San Joaquin | 131 | 101 | 0 | 0 | 1,129,064 | 1,129,064 | 82,817 |
| San Luis Obispo | 214 | 144 | 595,313 | 580,818 | 0 | 580,818 | 10,887,003 |
| San Mateo | 2 | 22 | 46 | 0 | 0 | 0 | 0 |
| Santa Barbara | 1,053 | 1,133 | 3,314,390 | 2,716,958 | 537 | 2,717,495 | 98,465,029 |
| Santa Barbara Offshore | 1 | 25 | 0 | 0 | 0 | 0 | 0 |
| Santa Clara | 14 | 4 | 19,281 | 17,545 | 0 | 17,545 | 19,691 |
| Solano | 86 | 157 | 6,566 | 0 | 1,913,117 | 1,913,117 | 129,834 |
| Stanislaus | - | 2 | 0 | 0 | 0 | 0 | 0 |
| Sutter | 220 | 196 | 0 | 0 | 3,588,446 | 3,588,446 | 72,978 |
| Tehama | 88 | 64 | 0 | 0 | 688,572 | 688,572 | 11,670 |
| Tulare | 62 | 28 | 34,492 | 0 | 0 | 0 | 2,874,186 |
| Ventura | 1,403 | 1,615 | 6,894,516 | 6,239,856 | 0 | 6,239,856 | 57,687,658 |
| Ventura Offshore | 15 | 38 | 16,601 | 14,343 | 0 | 14,343 | 27,693 |
| Yolo | 22 | 56 | 0 | 0 | 37,063 | 37,063 | 7 |
| Yuba | 1 | - | 0 | 0 | 273 | 273 | 0 |
| Total | 52,863 | 31,132 | 161,757,435 | 161,924,370 | 18,576,638 | 180,501,008 | 3,194,886,516 |

ATTACHMENT 3

2018 CRUDE AVERAGE CARBON INTENSITY VALUE

Calculation of 2018 Crude Average Carbon Intensity Value

Posting: Each year, pursuant to section 95489(b)(3) of the Low Carbon Fuel Standard (LCFS) Regulation,¹ CARB posts the Annual Crude Average carbon intensity calculation at the CARB-LCFS website for public comment. Written comments shall be accepted for 15 calendar days following the date on which the analysis was posted. Only comments related to potential factual or methodological errors in the posted Annual Crude Average carbon intensity value may be considered. CARB will evaluate the comments received, and may request in writing additional information or clarification from the commenters. Commenters shall have 10 days to respond to these requests. CARB evaluated the comments received within the comment period, and is posting the final Annual Crude Average carbon intensity value.²

Calculation of 2016, 2017 and 2018 Annual Crude Average Carbon Intensity Values:

Table 1 below shows California crude volumes and Annual Crude Average carbon intensity values for 2016, 2017 and 2018.³ Table 2 shows the breakdown of the sources of crude oil supplied to California refineries during 2018 as well as the carbon intensity values assigned to these crude sources.⁴ All crude oil produced in and offshore of California during 2018 was assumed to be refined in California. The volume contributions for California produced crudes are based on oil production data obtained from the California Department of Conservation.⁵ The volume contributions for California federal offshore crudes are based on oil production data obtained from the Bureau of Safety and Environmental Enforcement.⁶ The volume contributions of imported crudes are based on oil supply data submitted by refineries as part of annual LCFS reporting. The annual crude average carbon intensity values are a volume-weighted average of the carbon intensities for the crudes supplied in a given year.

Table 1: Crude Volumes and Annual Crude Average Carbon Intensity Values

| Year | 2016 | 2017 | 2018 |
|----------------------------|-------------|-------------|-------------|
| CI (gCO _{2e} /MJ) | 12.14 | 11.93 | 12.35 |
| Volume (bbl) | 582,101,235 | 621,246,732 | 624,127,435 |

Calculation of California Baseline Crude Average Carbon Intensity:

$CI_{BaselineCrudeAve}$ is the California Baseline Crude Average carbon intensity value, in gCO_{2e}/MJ, attributed to the production and transport of the crude oil supplied as

¹ The LCFS regulation is published at California Code of Regulations (CCR), title 17, sections 95480-95503. Subsequent section references are to CCR title 17.

² Comments and CARB responses are contained in the appendix to this document.

³ Carbon intensity values for 2016 and 2017 are from Table 9 of the LCFS regulation [Low Carbon Fuels Standard](#). Volumes for 2016 and 2017 are from Calculation of the 2017 Crude Average Carbon Intensity Value [Calculation of 2017 Crude Average Carbon Intensity Value](#)

⁴ Crude carbon intensity values are from Table 9 of the LCFS regulation [Low Carbon Fuels Standard](#). These carbon intensity values are based on oil field data from the year 2015.

⁵ California Department of Conservation, 2018 Report of California Oil and Gas Production Statistics. [2018 Annual Report of CA Oil and Gas Production](#).

⁶ Bureau of Safety and Environmental Enforcement website [BSEE Pacific Production](#) (accessed May 2, 2019).

petroleum feedstock to California refineries during the baseline calendar year, 2010, and is calculated by the following formula for the 2018 compliance period:

$$CI_{BaselineCrudeAve} = \frac{[11.98 \times 582,101,235 + 11.98 \times 621,246,732 + 11.78 \times 624,127,435]}{[582,101,235 + 621,246,732 + 624,127,435]}$$

$$CI_{BaselineCrudeAve} = 11.91$$

Calculation of Three-Year California Crude Average Carbon Intensity:

$CI_{2018CrudeAve}$ is the Three-year California Crude Average carbon intensity value, in gCO₂e/MJ, attributed to the production and transport of the crude oil supplied as petroleum feedstock to California refineries during the most recent three calendar years (2016, 2017 and 2018), and is calculated by the following formula:

$$CI_{2018CrudeAve} = \frac{[12.14 \times 582,101,235 + 11.93 \times 621,246,732 + 12.35 \times 624,127,435]}{[582,101,235 + 621,246,732 + 624,127,435]}$$

$$CI_{2018CrudeAve} = 12.14$$

Summary: The Three-year California Crude Average carbon intensity of 12.14 gCO₂e/MJ is greater than the California Baseline Crude Average carbon intensity of 11.91 gCO₂e/MJ plus 0.10 gCO₂e/MJ. Therefore, pursuant to sections 95489(a) and (b) of the LCFS regulation, incremental deficits of $0.23 \times E^{XD} \times C$ for CARBOB or diesel will be added to each affected regulated party's compliance obligation for the annual compliance period of 2020, where E^{XD} is the amount of fuel energy, in MJ, from CARBOB or diesel, as defined in section 95489(a), and $C = 1.0 \times 10^{-6} \frac{MT}{g CO_2 e}$.

Table 2: 2018 Refinery Crude Supply

| Country/State | Crude Name | CI (g/MJ)* | 2018 Volume (bbl) |
|----------------------|-------------------------------------|-------------------|--------------------------|
| | 2018 Volume Weighted Average CI | 12.35 | 624,127,435 |
| Angola | Clov | 7.31 | 15,622 |
| | Dalia | 8.90 | 2,522,982 |
| | Gimboa | 8.86 | 822,027 |
| | Girassol | 9.95 | 93,989 |
| | Greater Plutonio | 8.72 | 1,004,932 |
| | Nemba | 9.08 | 942,080 |
| | Pazflor | 8.02 | 4,821,795 |
| Argentina | Escalante | 10.15 | 1,772,197 |
| Australia | Pyrenees | 8.24 | 6,568 |
| Brazil | Atlanta | 11.78 | 658,824 |
| | Frade | 5.63 | 1,002,884 |
| | Iracema (Cernambi) | 5.54 | 6,031,213 |
| | Lula | 6.24 | 9,290,082 |
| | Mero | 11.78 | 502,121 |
| | Ostra | 5.65 | 3,070,178 |
| | Peregrino | 4.16 | 623,038 |
| | Sapinhoa | 6.00 | 7,342,701 |
| | Tubarao Martelo | 5.37 | 727,064 |
| Brunei | Seria Light Export Blend | 11.78 | 194,914 |
| Canada | Access Western Blend | 15.15 | 1,776,677 |
| | Albian Heavy Synthetic (all grades) | 23.68 | 868,227 |
| | Burnaby Blend | 11.78 | 278,000 |
| | Christina Dilbit Blend | 12.71 | 327,314 |
| | Cold Lake | 17.87 | 4,875,687 |
| | Fort Hills | 11.78 | 681,348 |
| | Kearl Lake | 12.89 | 3,046,505 |
| | Mixed Sweet | 8.11 | 79,064 |
| | Peace River Sour | 8.11 | 3,250 |
| | Surmont Heavy Blend | 22.48 | 1,485,537 |
| | Syncrude Synthetic (all grades) | 31.62 | 371,605 |
| | Western Canadian Select | 19.04 | 182,451 |
| Colombia | Acordionero | 6.96 | 325,884 |
| | Castilla | 10.55 | 4,739,922 |
| | Chaza | 11.78 | 1,816,689 |
| | Puerto Bahia | 11.78 | 365,442 |
| | South Blend | 9.25 | 1,347,224 |
| | Vasconia | 9.62 | 37,540,768 |

| Country/State | Crude Name | CI (g/MJ)* | 2018 Volume (bbl) |
|----------------------|-------------------------|-------------------|--------------------------|
| Ecuador | Napo | 8.31 | 21,851,807 |
| | Oriente | 10.07 | 31,593,153 |
| Equatorial Guinea | Zafiro | 20.56 | 3,850,536 |
| Ghana | Ten Blend | 8.08 | 3,155,969 |
| Iraq | Basra Light | 13.45 | 30,808,908 |
| Kuwait | Kuwait | 10.56 | 19,671,534 |
| Mexico | Maya | 7.85 | 18,504,160 |
| Nigeria | Antan | 21.98 | 2,117 |
| | Bonga | 5.06 | 1,870,925 |
| | Forcados | 8.97 | 1,928,189 |
| Oman | Oman | 13.32 | 112,128 |
| Peru | Pirana | 8.43 | 261,510 |
| Russia | CPC Blend | 11.78 | 1,299,450 |
| | ESPO | 11.55 | 792,718 |
| | Sokol | 6.94 | 3,504,791 |
| | Vityaz | 9.60 | 400,544 |
| Saudi Arabia | Arab Extra Light | 9.41 | 20,059,988 |
| | Arab Light | 9.23 | 87,299,942 |
| | Arab Medium | 8.72 | 21,004,457 |
| | Arab Heavy | 7.92 | 230,100 |
| Trinidad | Calypso | 7.41 | 99,550 |
| | Molo | 11.78 | 551,366 |
| UAE | Upper Zakum | 7.96 | 75,844 |
| UK | North Sea Kraken | 11.78 | 788,353 |
| Venezuela | Hamaca | 23.04 | 547,870 |
| | Hamaca DCO | 10.02 | 669,250 |
| | Santa Barbara | 17.32 | 2,170 |
| US Alaska | ANS | 15.91 | 83,471,217 |
| US New Mexico | Four Corners | 11.11 | 932,754 |
| US Texas | West Texas Intermediate | 11.93 | 467,041 |
| US Utah | Covenant | 4.43 | 52,139 |
| | Utah Sweet | 6.92 | 768,597 |
| US California* | Aliso Canyon | 4.94 | 51,171 |
| | Ant Hill | 20.81 | 21,154 |
| | Antelope Hills | 2.84 | 87,793 |
| | Antelope Hills, North | 24.75 | 245,887 |
| | Arroyo Grande | 31.11 | 533,059 |
| | Asphalto | 8.01 | 165,721 |
| | Bandini | 3.09 | 9,144 |

| Country/State | Crude Name | CI (g/MJ)* | 2018 Volume (bbl) |
|---------------|-------------------|------------|-------------------|
| | Bardsdale | 3.47 | 149,900 |
| | Barham Ranch | 4.15 | 80,927 |
| | Beer Nose | 3.98 | 9,164 |
| | Belgian Anticline | 5.01 | 30,930 |
| | Bellevue | 5.95 | 24,666 |
| | Bellevue, West | 6.60 | 53,053 |
| | Belmont, Offshore | 5.12 | 449,731 |
| | Belridge, North | 4.11 | 1,762,905 |
| | Belridge, South | 17.09 | 20,915,436 |
| | Beverly Hills | 5.41 | 316,472 |
| | Big Mountain | 4.65 | 17,665 |
| | Blackwells Corner | 3.07 | 22,741 |
| | Brea-Olinda | 3.59 | 1,037,187 |
| | Brentwood | 11.78 | 22,474 |
| | Buena Vista | 7.44 | 1,298,257 |
| | Burrel | 29.43 | 7,389 |
| | Cabrillo | 4.14 | 18,414 |
| | Cal Canal Gas | 11.78 | 19,940 |
| | Canal | 4.40 | 14,404 |
| | Canfield Ranch | 4.53 | 65,430 |
| | Carneros Creek | 4.06 | 13,633 |
| | Cascade | 3.00 | 91,419 |
| | Casmalia | 10.26 | 122,251 |
| | Castaic Hills | 2.68 | 6,593 |
| | Cat Canyon | 7.83 | 1,434,234 |
| | Cheviot Hills | 3.49 | 37,892 |
| | Chico-Martinez | 48.13 | 33,369 |
| | Cienaga Canyon | 5.78 | 9,661 |
| | Coalinga | 25.81 | 6,340,065 |
| | Coles Levee, N | 4.09 | 83,841 |
| | Coles Levee, S | 5.87 | 51,479 |
| | Comanche | 5.03 | 13,445 |
| | Coyote, East | 5.96 | 172,882 |
| | Cuyama, South | 14.70 | 189,386 |
| | Cymric | 15.69 | 12,970,618 |
| | Deer Creek | 11.51 | 33,822 |
| | Del Valle | 5.78 | 29,471 |
| | Devils Den | 7.51 | 8,381 |
| | Dominguez | 3.57 | 22,334 |

| Country/State | Crude Name | CI (g/MJ)* | 2018 Volume (bbl) |
|---------------|-----------------------|------------|-------------------|
| | Edison | 14.53 | 588,931 |
| | El Segundo | 4.38 | 20,524 |
| | Elk Hills | 8.02 | 8,574,673 |
| | Fruitvale | 3.75 | 387,402 |
| | Greeley | 7.91 | 148,442 |
| | Hasley Canyon | 2.25 | 27,790 |
| | Helm | 3.99 | 83,493 |
| | Holser | 3.80 | 14,162 |
| | Honor Rancho | 3.43 | 27,292 |
| | Huntington Beach | 6.62 | 1,906,809 |
| | Hyperion | 1.90 | 10,755 |
| | Inglewood | 10.06 | 1,977,358 |
| | Jacalitos | 2.72 | 89,640 |
| | Jasmin | 16.59 | 138,580 |
| | Kern Bluff | 12.54 | 35,641 |
| | Kern Front | 35.68 | 3,471,459 |
| | Kern River | 15.09 | 16,386,354 |
| | Kettleman Middle Dome | 3.93 | 16,740 |
| | Kettleman North Dome | 3.42 | 108,532 |
| | Landslide | 12.53 | 35,544 |
| | Las Cienegas | 4.96 | 173,097 |
| | Livermore | 2.66 | 4,918 |
| | Lompoc | 28.45 | 261,123 |
| | Long Beach | 5.48 | 1,265,165 |
| | Long Beach Airport | 4.92 | 7,660 |
| | Los Angeles Downtown | 5.89 | 41,778 |
| | Los Angeles, East | 14.71 | 182,283 |
| | Lost Hills | 12.99 | 9,658,387 |
| | Lost Hills, Northwest | 5.36 | 6,385 |
| | Lynch Canyon | 23.10 | 215,515 |
| | Mahala | 4.99 | 10,200 |
| | McCool Ranch | 9.59 | 8,624 |
| | McDonald Anticline | 4.33 | 49,495 |
| | McKittrick | 25.31 | 2,619,856 |
| | Midway-Sunset | 29.33 | 20,655,818 |
| | Montalvo, West | 2.65 | 280,077 |
| | Montebello | 17.03 | 394,874 |
| | Monument Junction | 4.95 | 81,423 |

| Country/State | Crude Name | CI (g/MJ)* | 2018 Volume (bbl) |
|---------------|------------------|------------|-------------------|
| | Mount Poso | 3.71 | 1,612,717 |
| | Mountain View | 3.97 | 78,434 |
| | Newhall-Potrero | 3.66 | 52,575 |
| | Newport, West | 5.21 | 76,706 |
| | Oak Canyon | 4.04 | 16,693 |
| | Oak Park | 3.01 | 9,969 |
| | Oakridge | 3.46 | 99,675 |
| | Oat Mountain | 3.17 | 54,744 |
| | Ojai | 4.94 | 245,226 |
| | Olive | 1.82 | 47,657 |
| | Orcutt | 11.76 | 891,061 |
| | Oxnard | 5.39 | 360,708 |
| | Paloma | 4.88 | 13,535 |
| | Placerita | 32.78 | 566,594 |
| | Playa Del Rey | 6.87 | 27,736 |
| | Pleito | 2.09 | 670,322 |
| | Poso Creek | 21.96 | 5,130,861 |
| | Pyramid Hills | 3.36 | 43,176 |
| | Railroad Gap | 7.08 | 113,586 |
| | Raisin City | 9.13 | 135,582 |
| | Ramona | 4.47 | 30,465 |
| | Richfield | 4.75 | 188,696 |
| | Rincon | 4.88 | 235,485 |
| | Rio Bravo | 6.98 | 206,396 |
| | Rio Viejo | 2.74 | 45,767 |
| | Riverdale | 3.8 | 68,126 |
| | Rose | 2.91 | 217,810 |
| | Rosecrans | 5.76 | 123,214 |
| | Rosecrans, South | 3.54 | 8,373 |
| | Rosedale | 2.35 | 13,053 |
| | Rosedale Ranch | 8.32 | 115,156 |
| | Round Mountain | 24.04 | 2,567,799 |
| | Russell Ranch | 8.58 | 46,965 |
| | Salt Lake | 3.18 | 19,627 |
| | Salt Lake, South | 6.34 | 3,696 |
| | San Ardo | 26.42 | 8,173,645 |
| | San Miguelito | 5.25 | 330,190 |
| | San Vicente | 3.22 | 139,819 |
| | Sansinena | 3.21 | 200,496 |

| Country/State | Crude Name | CI (g/MJ)* | 2018 Volume (bbl) |
|----------------|--------------------|------------|-------------------|
| | Santa Clara Avenue | 3.53 | 32,746 |
| | Santa Fe Springs | 12.53 | 690,628 |
| | Santa Maria Valley | 4.80 | 80,452 |
| | Santa Susana | 5.29 | 7,167 |
| | Sargent | 4.00 | 19,281 |
| | Saticoy | 3.68 | 34,314 |
| | Sawtelle | 2.56 | 148,911 |
| | Seal Beach | 5.19 | 392,210 |
| | Semitropic | 4.30 | 24,908 |
| | Sespe | 3.98 | 335,009 |
| | Shafter, North | 3.32 | 450,403 |
| | Shiells Canyon | 5.07 | 50,589 |
| | South Mountain | 3.58 | 452,341 |
| | Stockdale | 2.18 | 100,108 |
| | Tapia | 6.92 | 10,651 |
| | Tapo Canyon, South | 3.08 | 7,563 |
| | Tejon | 13.77 | 222,511 |
| | Tejon Hills | 9.39 | 8,026 |
| | Tejon, North | 5.63 | 29,230 |
| | Temescal | 3.40 | 53,416 |
| | Ten Section | 7.50 | 64,685 |
| | Timber Canyon | 4.74 | 16,513 |
| | Torrance | 3.99 | 368,052 |
| | Torrey Canyon | 3.52 | 77,568 |
| | Union Avenue | 5.58 | 9,159 |
| | Vallecitos | 4.53 | 13,421 |
| | Ventura | 4.54 | 4,038,762 |
| | Wayside Canyon | 2.36 | 1,177 |
| | West Mountain | 3.53 | 12,718 |
| | Wheeler Ridge | 2.8 | 57,814 |
| | White Wolf | 1.92 | 11,423 |
| | Whittier | 3.71 | 80,406 |
| | Wilmington | 8.31 | 10,818,132 |
| | Yowlumne | 13.9 | 135,336 |
| | Zaca | 9.53 | 168,052 |
| US Federal OCS | Beta | 1.59 | 1,831,734 |
| | Carpinteria | 3.28 | 298,411 |
| | Dos Cuadras | 4.57 | 891,895 |
| | Hueneme | 4.67 | 56,873 |

| Country/State | Crude Name | CI (g/MJ)* | 2018 Volume (bbl) |
|----------------------|-------------------|-------------------|--------------------------|
| | Point Pedernales | 8.26 | 1,305,249 |
| | Santa Clara | 2.46 | 488,785 |

*CI values from Table 9 of the LCFS regulation are based on oil field operational data from the year 2015

Appendix: Responses to comments

Comment: see comment at

[Comment 6 for Comments on Crude Oil analysis for LCFS](#)

Response:

This comment is not related to the Annual Crude Average CI calculation.

Comment: see comment at

[Comment 7 for Comments on Crude Oil analysis for LCFS](#)

Response: The commenter suggests that emission reduction activities at California oil fields such as solar electricity projects should be accounted for in the calculation of the Annual Crude Average CI.

In calculating the Annual Crude Average CI, the LCFS regulation requires the use of CI values approved through a formal regulatory process. These CI values are listed in Table 9 of the regulation text. The crude CI values used to calculate the 2018 Crude Average CI were approved as part of the 2018 LCFS regulatory amendment process and are based on oil field production data from the year 2015. Staff is unaware of any solar electricity projects implemented at California oil fields at that time. Since 2016, staff is aware of two solar electricity projects that have been implemented at the Midway Sunset oil field. Greenhouse gas reductions from these projects will be accounted for in calculating updated CI values for Table 9 as part of the next LCFS amendment cycle.

ATTACHMENT 4

OIL & GAS REGULATORY SETTING



SUMMARY OF FEDERAL AND CALIFORNIA OIL AND GAS REGULATORY PROGRAMS FOCUSED ON WORKERS AND COMMUNITIES

Occupational Health, Safety and Industrial Hygiene

PRIMARY REGULATORS



Compressed Air Systems and Equipment

Safe work practices required for the handling, use, storage and transportation of compressed gas equipment and cylinders and air receivers

California Code of Regulations (CCR) , Title 8, Chapter 4, Subchapter 7, Group 9, Articles 76-79 – Compressed Gas and Air Equipment

CCR, Title 8, Chapter 4, Subchapter 7, Group 2, Article 7, Section 3304 – Miscellaneous Use of Compressed Cylinder Gas

CCR, Title 8, Chapter 4, subchapter 7, Section 4650 – Storage, Handling, and Use of Cylinders

CCR, Title 8, Chapter 4, Subchapter 7 – General Industry Safety Orders, Group 10, Articles 80 – 88 – Gas Systems for Welding and Cutting

Confined Space Entry

Program required that identifies confined space areas, entry procedures and permit requirements and training

CCR, Title 8, Chapter 4, Subchapter 7, General Industry Safety Orders, Group 16, Article 108, Sections 5156- 5158 - Permit Required Confined Space Entry

CCR, Title 8, Chapter 4, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 7, Section 6528 & 6529 – Confined Spaces

CCR, Title 8, Chapter 4, Subchapter 15 – Petroleum Safety Orders – Refining, Transportation, and Handling, Article 11, Section 6816 – Blinding or isolating of pipe lines and equipment for entry

Contractor Safety

Program required for selection and management of contractors

CCR, Title 8, Subchapter 7 – General Industry Safety Orders – Section 6509 – Contractors

CCR, Title 8 – Section 5006.1 – Mobile Crane and Tower Crane-Operator Qualifications and Certification CCR, Title 8 – Section 5189(h)

Drilling and/or Well Servicing Operations

Standards and safe work practices that apply to equipment and operations used in drilling and well servicing

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production – Sections 6500 thru 6693

Electrical Safety

Standards and safe work practices required for handling certain electrical equipment, including personal protective equipment (PPE), work permit requirements, isolation and training⁵

CCR, Title 8, Subchapter 5, Electrical Safety Orders, Group 1 - Electrical Safety Orders, Group 1

CCR, Title 8, Subchapter 5, Electrical Safety Orders, Group 2 – High-Voltage Electrical Safety Orders, Group 2

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 6, Section 6527 – Electrical Equipment

Energy Isolation

Lockout/tagout procedure required to ensure proper isolation of energy sources, including training

CCR, Title 8, - Subchapter 5, Electrical Safety Orders, Group 1, Article 3, Section 2320.5

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 10, Section 6536 – Opening and Blinding Pipelines and Equipment

CCR, Title 8, Section 3314

CCR, Title 8, Section 5189

Ergonomics

Safe work practices required to prevent repetitive motion injuries or musculoskeletal disorders, including employee awareness training and equipment

CCR, Title 8, Chapter 4, Subchapter 7 – General Industry Safety Orders, Group 15, Article 106, Section 5110 – Repetitive Motion Injuries

Continued

Excavation and Trenching

Safe work practices and equipment required for excavation and trenching, including utility clearance, shoring, work permit requirements and training

CCR, Title 8, Subchapter 4, Construction Safety Orders, Article 6, Section 1541 – Excavations California Code of Regulations – Subchapter 2, Section 341 - Permit Requirements

Fall Protection

Safe work practices required for access to aisles, walkways, scaffolds, ladders, and walking and working surfaces procedures, including equipment and training for working at heights of 6’ or greater

CCR, Title 8, Subchapter 7, General Industry Safety Orders, Group 1, Article 4, Sections 3270 - 3280 – Access, Work Space and Work Areas

CCR, Title 8, Subchapter 14 1– Petroleum Safety Orders – Drilling and Production, Article 22, Section 6580 – Safety Belts and Lanyards

CCR, Title 8, Subchapter 4, Construction Safety Orders, Article 24, Sections 1669-1672 – Fall Protection
CCR, Title 8, Subchapter 4, Articles 16-25, Sections 3210-14

Flammable Materials

Safe work practices for use and handling of flammable materials

CCR, Title 8, Subchapter 7, Group 20, Article 135 – Flammable Liquids, Gases and Vapors

CCR, Title 8, Subchapter 14, Petroleum Safety Orders, Article 46 – Liquid Loading and Unloading.

Gas and Vapor Testing

Safe work practices required to identify areas where hazardous gases may be present and establish procedures, including monitoring and training, for worker protection in affected areas

CCR, Title 8, Subchapter 14, - Petroleum Safety Orders – Drilling and Production, Article 8, Section 6531 – Gas and Vapor Testing

Hand and Portable Powered Tools

Safe work practices to ensure testing and inspection of hand and portable power tools and training in their proper use

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 3, Article 20, Sections 3555 - 3564 – Hand & Portable Powered Tools and Equipment

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 44, Section 6646 – Miscellaneous Tools and Equipment

Hazard Communication Program

Program required to inform and train employees regarding materials used in the workplace, their potential hazards, proper storage and handling, and other safeguards, including Safety Data Sheets, labels, PPE and emergency response

CCR, Title 8, C.O.S.H. Regulations, Article 5, Section 339 – Hazardous Substance List

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 16, Article 109 – Hazardous Substances and Processes

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 16, Article 109, Section 5194 – Control of Hazardous Substances

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 12, Section 6542 – Hazardous Substances

CCR, Title 22 Sections 12000-14000 (Prop 65)

Hearing Protection

Program required to identify areas and tasks with high noise, including PPE, training and engineering controls as warranted

CCR, Title 8, Chapter 4, Subchapter 7- General Industry Safety Orders, Group 15, Article 105, Sections 5095- 5100 – Control of Noise Exposure

Heat Stress

Safe work practices to provide training and protection from heat illness

CCR, Title 8, Chapter 4, Subchapter 7 – General Industry Safety Orders, Group 15, Article 10, Section 3395 – Heat Illness

CCR, Title 8, Section 1524

CCR, Title 8, Section 3363

Continued

Hot Work

System is required to control workplace hazards associated with hot work, including procedures, safety precautions and training

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 11, Article 90 – Electric Welding, Cutting & Heating
 CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 10 – Gas Systems for Welding and Cutting
 CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 8, Section 6531 – Gas and Vapor Testing
 CCR, Title 8, Subchapter 14 – Petroleum Safety Orders, Article 6, Section 6521 – Hazardous Areas
 CCR, Title 8, Section 1536. Ventilation Requirements for Welding, Brazing, and Cutting
 CCR, Title 8 – Section 5189(K) Hot Work Permit

Injury & Illness Prevention Plan

Plan required to prevent injury and illness, including training

CCR, Title 8, Chapter 4, Subchapter 7, Group 1, Article 3203 – Group 1, General Physical Conditions

Injury & Illness Reporting

Occupational injuries and illnesses must be recorded under federal and state regulations

49 CFR Part 191, 192, 195 (DOT reporting)
 CCR, Title 8, Chapter 3.2, Subchapter 2, Article 1, Section 340 – Posting Requirements of the Cal-OSHA Notice
 CCR, Title 8, Chapter 3.2, Subchapter 2, Article 1, Section 342 – Reporting Work-Connected Injuries
 CCR, Title 8, Chapter 7, Subchapter 1, Article 2, Section 14300 – Log and Summary of Occupational Injuries or Illnesses
 CCR, Title 8, Chapter 4, Subchapter 7- General Industry Safety Orders, Group 16, Article 109, Section 5189(m)

Lighting

Provide working areas, stairways, aisles, passageways work benches and machines with adequate illumination

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 2, Article 7, Section 3317 – Illumination

Machine Guarding

Safe work practices required to ensure that equipment is properly guarded and that the machine is operated only when machine guarding is in place

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production:
 – Article 35, Section 6622 – Guarding
 – Article 37, Section 6631 – Guarding
 – Article 39, Section 6636 – Guarding Sheaves

Material Handling, Storage and Loading

Safe work practices required to prevent injuries and incidents during the handling, loading and storage of materials

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 47, Section 6655 – General Safety
 CCR Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 45, Section 6648 – Storage and Handling of Pipe
 CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production – Article 45, Section 6663 – Hoists and Hoisting
 CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 16, Article 109, – Hazardous Substances and Processes
 CCR, Title 8, Subchapter 7, General Industry Safety Orders, Group1, Article 6 – Powered Platforms and Equipment
 CCR, Title 8, Subchapter 7, General Industry Safety Orders, Group 4, Articles 23 through 27 – General Mobile Equipment and Auxiliaries
 CCR, Title 8, Section 344.60 - Licensing of Certifiers of Cranes and Derricks–Requirements
 CCR, Title 8, General Industrial Safety Orders, Sections 4884 - 5049 – Cranes and Other Hoisting Equipment
 CCR, Title, 8, Subchapter 4. Construction Safety Orders, Sections 1635.1 – 1655

Occupational Health, Safety and Industrial Hygiene

Continued

Medical and First Aid

Safe work practices required for providing medical care, first aid and supplies, including training and availability of supplies

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 2, Article 10, Section 3400 – Medical Services and First Aid
CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 4, Section 6511 & 6512 – First Aid & Medical Services
CCR, Title 8, Subchapter 7 – General Industry Safety Orders Group 16, Article 109, Section 5193 – Bloodborne Pathogens

Personal Protective Equipment (PPE)

Operations must be evaluated and PPE requirements determined, including selection, use, care and employee training

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 2, Article 10, Sections 3380 - 3390 – Personal Safety Devices and Safeguards
CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 5, Section 6513 – Clothing

Respiratory Protection and Ventilation

Program required to identify work areas or tasks requiring respiratory protection, specify proper selection, use and maintenance of protective equipment, and provide for training, medical evaluations and fit testing

CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Group 16, Article 107, Section 5141 – Control of Harmful Exposures to Workers
CCR, Title 8, Subchapter 7 - General Industry Safety Orders, Group 16, Article 107, Section 5151 - Control of Hazardous Substances
CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Article 107, Section 5144 – Respiratory Protection
CCR, Title 8, C.O.S.H. Regulations, Article 5, Section 339 – Hazardous Substance List
CCR, Title 8, Subchapter 4, Construction Safety Orders, Article 4, Section 1529 – Asbestos
CCR, Title 8, Section 5208
SCAQMD Rule 1403 – Asbestos emissions from demolition or renovation activities
CCR, Title 8, Subchapter 4 – Construction Safety Orders, Article 4, Section 1532.1 – Lead

Transportation on Public Roads

Federal & state regulations govern the labeling, storage and transportation of hazardous materials

49 CFR Part 172, 173, 178 & 179
California Motor Vehicle Code

Water Supply and Sanitation

Safe work practices including potable water supply and clean and sanitary workplaces, washing facilities and change rooms

CCR, Title 8, Section 1524 – Water Supply
CCR, Title 8, Section 3395
CCR, Title 8, Subchapter 7 – General Industry Safety Orders, Article 9, Sections 3360 - 3367 – Water Supply, Toilet rooms, Sanitation, Change Rooms

Protection of Air Quality

PRIMARY REGULATORS



South Coast AQMD



New Source Review for Air Permitting

New Source Review permit applications must be submitted to obtain a permit to construct (PTC) and permit to operate (PTO) for all new, modified or relocated equipment

SCAQMD Regulations I-IV
SCAQMD Regulation XIII-XIV
SCAQMD Rule 1401 – Toxic air contaminants for new or modified sources
Federal Clean Air Act

Prevention of Significant Deterioration in Air Permitting

Air permit applications must be screened for PSD applicability, to determine if new emissions from a major new source or major modification of an existing source will not cause or contribute to exceedance of any National Ambient Air Quality Standards

SCAQMD Regulations I-IV SCQAMD Regulation XVII
SCAQMD Rule 1701 – Prevention of Significant Deterioration
SCQMD Rule 1714 – Prevention of Significant Deterioration for Greenhouse Gases Federal Clean Air Act

Clean Air Act Title V Permit and Operating Requirements

Clean Air Act Title V Permits must be obtained from SCAQMD for any major stationary sources – a facility that has the potential to emit any criteria pollutant or hazardous air pollutant at or above specified levels

SCAQMD Regulations I, II, III, IV & XIV
SCAQMD Regulation XX
SCAQMD Regulation XXX
SCAQMD Rule 3001 – Title V Permits
Federal Clean Air Act

Clean Air Act Title III Permits

Clean Air Act Title III Permits must be obtained for sources of hazardous air pollutants (HAP) > 10 tons per year for any one HAP or > 25 tons per year for any combination of HAPs

SCAQMD Regulations I-IV SCAQMD Regulation X
Federal Clean Air Act

State Operating Air Permits

Permits to operate are required from the SCAQMD (Rules 201 and 203) and CARB for applicable stationary and portable sources at operating locations, depending on NOx emissions

SCAQMD Regulations I, II, III, IV & XIV
SCAQMD Rule 201
SCAQMD Rule 203

Air Toxics Hot Spots Act Reporting and Health Risk Assessments

Requires facilities to report use of emission of potentially toxic materials, and perform a health risk assessment

Health & Safety Code Section 44300 - 44394
CCR, Title 17, Section 93300.5 and CARB Emissions Inventory Criteria and Guidelines Report
SCAQMD Rule 1401 – New Source Review of Toxic Air Contaminants
SCAQMD Rule 1402 – Control of Toxic Air Contaminants from Existing Sources

AB 617 Community Air Quality Monitoring

New air monitoring program in disadvantaged communities that authorizes CARB to require fence line monitoring and Best Available Retrofit Control Technology (BARCT) on industrial sources

Health & Safety Code Section 42705.5

Study of Neighborhood Air near Petroleum Sources

New air monitoring program by CARB in the vicinity of oil & gas production facilities

Health & Safety Code Section 42705.5

Emissions Inventory and Reporting

Emissions must be monitored or estimated and reported on an annual or quarterly basis to the SCAQMD under several regulatory programs

SCAQMD Regulations I-IV
SCAQMD Regulations XX
SCAQMD Regulations XXX
SCAQMD Rules 218, 1110.2 and 2012 – Monitoring and reporting emissions for gas engines
SCAQMD Rule 1148.1 – Oil and Gas Production Wells – Inspection and reporting of emissions from well cellars
SCAQMD Rule 1149 – Storage Tank Cleaning and Degassing
SCAQMD Rule 1166 – VOC Emissions from Decontamination of Soil
SCAQMD Rule 1173 and 1176 – Fugitive emissions

Chemical Use Inventory and Operational Reporting on Well Drilling, Completion and Maintenance

Requires notification of drilling, completion and well servicing activities, and submission of chemical usage inventory, reporting of combustion equipment usage and annual emissions estimates associated with drilling and well servicing

SCAQMD Regulation I, II, III, IV
SCAQMD Rule 1148.2

Air Quality Analysis, Modeling, Source Testing, Monitoring & Reporting

- Summary: State and Federal regulations require air quality analysis, modeling, source testing and monitoring and reporting. Prior to permitting new projects, emissions are evaluated using techniques such as engineering data, projected volumes and operating conditions and modeling.
- Source testing is required on combustion sources as described in individual air permits.
- For major sources, continuous emissions monitoring systems may be required for certain criteria pollutants, with quarterly and annual emissions reporting to the SCAQMD.

SCAQMD Regulations I-IV
SCAQMD Rule 109 – Recordkeeping for VOC emissions
SCAQMD Rule 218 – Continuous Emission Monitors
SCAQMD Rule 430 – Identification of notification requirements for equipment breakdown (for non-RECLAIM equipment)
SCAQMD Rule 463 – Storage of Organic Liquids
SCAQMD Rule 1107 – Coating of Metal Parts and Products
SCAQMD Rule 1113 – Architectural Coatings
SCAQMD Rule 1118.1 – Emissions from Non-Refinery Flares
SCAQMD Rule 1148.1 – Oil and Gas Production Wells
SCAQMD Rule 1148.2 – Notification and Reporting for Oil and Gas Wells and Chemical Suppliers
SCAQMD Rule 1149 – Storage Tank Cleaning and Degassing
SCAQMD Rule 1166 – Emissions from Soil Remediation
SCAQMD Rule 1168 – Adhesives and Sealants
SCAQMD Rule 1171 – Solvent Cleaning Operations
SCAQMD Rule 1173 – Control of VOC Leaks and Releases from Components at Petroleum and Chemical Plants
SCAQMD Rule 1176 – VOC Emissions from Wastewater Systems
SCAQMD Rule 2012 – Monitoring, Reporting and Recordkeeping for NOx Emissions

Continued

Air Emission Controls, Operating Parameters, and Performance Standards

Air permits for stationary sources identify and require the facility to install Maximum Achievable Control Technology (MACT), Best Available Control Technology (BACT) and Lowest Achievable Emission Reduction (LAER) on new, modified or relocated emission sources.

These permits typically require tanks, separators, compressors, pressure vessels and other oil and gas production facilities to be connected to vapor recovery systems and to high-efficiency flares to reduce air emissions

SCAQMD Regulation XIII
SCAQMD Regulation XXX
SCAQMD Rule 201 – Permit to Construct
SCAQMD Rule 203 – Permit to Operate
SCAQMD Rule 463 – Organic Liquid Storage
SCAQMD Rule 1303 – Best Available Control Technology

Leak Detection and Repair

Leak Detection and Repair (LDAR) programs are required from fittings, valves and components, including quarterly inspections, monitoring and reporting

SCAQMD Rule 1173 – Control of VOC Leaks and Releases from Components at Petroleum and Chemical Plants
SCAQMD Rule 1176 – VOC Emissions from Wastewater Systems

Emissions Reporting for Breakdowns or Upset Conditions

Breakdown of permitted air pollution emitting or control equipment must be promptly reported. Repairs must be completed within 24 hours, or the unit shut down. Emissions during an upset must be estimated and reported, and a written report must be submitted to the SCAQMD within 7 days after a breakdown condition.

SCAQMD Regulations I-IV
SCAQMD Rule 430 (Non-RECLAIM permits)
SCAQMD Rule 2004 (RECLAIM permits)

Crude Oil Well Cellars and Tanks

Well cellars must be kept free of hydrocarbon liquids Tanks must be operated vapor tight (<1,000 ppm)
Fixed roof organic liquid storage tanks with a capacity of 471 bbl or greater must be equipped with a 95% efficient vapor collection and control system

SCAQMD Rule 463 – Storage of Organic Liquids
SCAQMD Rule 1148.1 – Oil & Gas Production Wells
SCAQMD Rule 1148.2 – Notification and Reporting for Oil and Gas Wells and Chemical Suppliers
SCAQMD Rule 1176 – VOC Emissions from Wastewater Systems

Internal Combustion Engines in Stationary Equipment

Stationary equipment with internal combustion engines rated 50 hp or greater must obtain an air permit and is subject to additional emission controls and reporting. Equipment with a lower rating does not require a specific permit but must meet certain emission limitations.

SCAQMD Regulations I-IV
SCAQMD Rule 219 – Equipment Not Requiring a Written Permit
SCAQMD Rule 401 – Visible Emissions
SCAQMD Rule 431.1 – Sulfur Content in Gaseous Fuels
SCAQMD Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines
SCAQMD Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines
SCAQMD Rule 1472 – Requirements for Facilities with Multiple Stationary Emergency Standby Diesel-Fueled
Internal Combustion Engines

Continued

Painting and Sandblasting

Painting and sandblasting require a permit by rule, with emission limitations and associated recordkeeping

SCAQMD Regulations I-IV
SCAQMD Rule 109 - Recordkeeping for VOC Emissions SCAQMD Rule 1106
SCAQMD Rule 1107
SCAQMD Rule 1113
SCAQMD Rule 1140

Emission Reduction Credits (ERCs)

Air permit applications for new or modified facilities above certain thresholds must offset additional emissions by acquiring and surrendering Emissions Reduction Credits (ERCs).

SCAQMD Regulation XIII

Methane Emissions

Specific leak detection and repair and retrofitting of equipment is required from certain wells, separators and tank systems, pumps, compressors and associated equipment

CCR, Title 17, Division 3, Chapter 1, Subchapter 10 - Climate Change, Article 4, Sections 96556 - 95677 – Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities

Greenhouse Gas Emissions

Emissions of greenhouse gases above specific thresholds or from major sources of criteria pollutants require federal and state permits. Certain oil & gas facilities are required to reporting greenhouse gas emissions annually and to acquire and surrender greenhouse gas emission allowances or offsets.

CCR, Title 17, Division 3, Chapter 1, Subchapter 10, Article 2 - Mandatory Greenhouse Gas Reporting - Section 95101(b)

CCR Title 17, Division 3, Chapter 1, Subchapter 10 - Climate Change, Article 5, Subarticle 7 - Compliance Requirements for Covered Entities -Section 95850 - 95856

Process Safety Management

PRIMARY REGULATORS



Process Safety Management

Process safety program required for facilities that store quantities of hazardous materials above certain thresholds. Required program elements for the covered process include:

- Process safety information such as safety data sheets, facility technical information
- Process Hazard Analysis
- Training and awareness of employees and contractors
- Pre-Start Up Safety Review
- Mechanical Integrity program for process components
- Hot Work Permit
- Management of Change Incident Investigation
- Emergency Preparedness & Response
- Injury and Illness Prevention Program with inspections of the covered process
- Employee Participation

Risk Management Planning

Requires facilities that store quantities of hazardous materials above certain thresholds to prepare and submit a Risk Management Plan, including an emergency response program, employee participation and training, process safety metrics

CCCR, Title 8, Division 1, Chapter 4, Subchapter 8, Group 16, Article 109 – Section 5189 – Cal/OSHA Process Safety Management Regulations

29 CFR Part 1910.119 – Federal OSHA Process Safety Management Regulations

CCR, Title 19, Division 2, Chapter 4.5, Section 2755.5 - 2785.1– California Accidental Release Prevention Program (OES)

40 CFR Part 68 – U.S. EPA Risk Management Planning Regulations

Mechanical Integrity

PRIMARY REGULATORS



Division of Oil, Gas, and Geothermal Resources



U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration



Maintenance of Controls and Monitoring Systems

Requires inspection and maintenance of control and monitoring systems in facilities handling threshold quantities of hazardous materials

CCR, Title 8, Division 1, Chapter 4, Subchapter 8, Group 16, Article 109 – Section 5189 – Cal/OSHA Process Safety Management Regulations
29 CFR Section 1910.119 – Federal OSHA Process Safety Management Regulations
CCR, Title 19, Division 2, Chapter 4.5, Section 2755.5 - 2785.1– California Accidental Release Prevention Program (OES)
40 CFR Part 68 – U.S. EPA Risk Management Planning Regulations

Maintenance of Alarms

Requires inspection and maintenance of alarm systems

CCR, Title 8, Chapter 4, Subchapter 7 (General Safety Orders), Group 27, Article 165 – Employee Alarm Systems

Maintenance of Detection Systems

Requires calibration, inspection and maintenance of gas detection systems

CCR, Title 8, Subchapter 14, - Petroleum Safety Orders – Drilling and Production, Article 8, Section 6531 – Gas and Vapor Testing

Maintenance of Electrical Systems

Requires inspection and maintenance of electrical systems

CCR, Title 8, Chapter 4, Chapter 4, Subchapter 5 – Electrical Safety Orders

Maintenance of Emergency Shutdown Systems

Requires inspection and maintenance of emergency shutdown systems in facilities handling threshold quantities of hazardous materials

CCR, Title 8, Division 1, Chapter 4, Subchapter 8, Group 16, Article 109 – Section 5189 – Cal/OSHA Process Safety Management Regulations
29 CFR Section 1910.119 – Federal OSHA Process Safety Management Regulations
CCR, Title 19, Division 2, Chapter 4.5, Section 2755.5 - 2785.1– California Accidental Release Prevention Program (OES)
40 CFR Part 68 – U.S. EPA Risk Management Planning Regulations

Maintenance of Fixed Fire Suppression Systems

Requires inspection and maintenance of fixed fire suppression systems

CCR, Title 8, Section 6175 – Fixed Fire Extinguishing Systems
CCR, Title 8, Section 6165 – Standpipe and Hose Systems

Maintenance of Passive Fire Protection

Requires inspection and maintenance of passive fire protection

CCR, Title 8, Subchapter 7, General Industry Safety Orders, Group 27 – Fire Protection
CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 6, Section 6518 - 6527 – Fires and Explosions
CCR, Title 8, Chapter 4, Subchapter 7 (General Safety Orders), Group 1, Article 2, Section 3221 – Fire Prevention Plan
CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders), Article 6, Section 6519 – Fire Protection and Fire Fighting Equipment
California Fire Code, Article 80

Maintenance of Portable Fire Suppression Equipment

Requires inspection and maintenance of portable fire suppression equipment

CCR, Title 8, Chapter 4, Chapter 4, Subchapter 7 (General Safety Orders), Group 1, Article 2, Section 3221 – Fire Prevention Plan
CCR, Title 8, Chapter 4, Chapter 4, Subchapter 7 (General Safety Orders), Group 27, Sections 6150 - 6184 – Fire Protection
CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders), Article 6, Section 6519 - Fire Protection and Fire Fighting Equipment
California Fire Code, Article 80

Maintenance of Compressors

Requires inspection and maintenance of compressors

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7 (Miscellaneous Safe Practices), Section 3328 – Machinery and Equipment
CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling and Production), Article 16 – Gas Compressors and Engines
CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 21 – Gas Compressors and Engines
CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 3, Article 17, Section 3518 – Air Compressors

Maintenance of Pumps

Requires inspection and maintenance of pumps

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7 (Miscellaneous Safe Practices), Section 3328 – Machinery and Equipment
CCR, Title 8, Chapter 4, Subchapter 7 (General Safety Orders), Group 6 – Power Transmission Equipment, Prime Movers, Machines and Machine Parts
CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling), Article 38 – Pumps and Pump Pressure Relief Devices
CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 16, Section 6844 – Pumps

Maintenance of Valves

Requires inspection and maintenance of valves

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7, Section 3321 – Identification of Piping
CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling & Production), Article 9, Section 6533 – Pipe Lines, Fittings & Valves
CCR, Title 8, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 16, Section 6845 – Piping, Fitting & Valves

Maintenance of Piping Systems

Requires inspection and maintenance of piping systems

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7, Section 3321 – Identification of Piping
CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7, Section 3329 – Pipe Lines
CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling & Production), Article 9, Section 6533 – Pipe Lines, Fittings & Valves
CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 16, Section 6845 – Piping, Fittings & Valves

Maintenance of Relief Devices

Requires inspection and maintenance of relief devices

CCR, Title 8, Chapter 4, Subchapter 1, Article 3 (Air Tanks) Section 465: Safety Devices and Systems
CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling), Article 15, Sections 6551, 6552 & 6634 – Unfired Pressure Vessels, Boilers, and Fired Pressure Vessels and Pressure Relief Devices
CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling & Production), Article 38, Section 6634 – Pumps and Pump Pressure Relief Devices
CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 18, Sections 6857 - 6858 – Unfired Pressure Vessels, Boilers, and Fired Pressure Vessels and Pressure Relief Valves

Mechanical Integrity

Continued

Mechanical Integrity of Storage Tanks

DOGGR regulates mechanical integrity inspections and maintenance of above ground oil & gas production storage tanks, with additional requirements for tank within 300 feet of residences and other sensitive land uses

Public Resources Code Sections 3106 and 3270

CCR, Title 8, Chapter 4, Chapter 4, Subchapter 7 (General Safety Orders), Group 20, Article 145 – Tank Storage

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling), Article 14, Sections 6456 - 6457 – Reservoirs and Stationary Tanks

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling), Article 17 – Identification of Wells and Equipment

CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 9 – Tanks and Reservoirs

CCR, Title 14, Division 2, Chapter 4, Subchapter 2, Article 3, Section 1773 – Production Facilities Containment, Maintenance, and Testing

CCR, Title 14, Division 2, Chapter 4, Subchapter 2, Article 3, Section 1777 – Maintenance and Monitoring of Production Facilities, Safety Systems, and Equipment

Mechanical Integrity of Boilers & Pressure Vessels

Requires mechanical integrity inspection and maintenance of boilers and pressure vessels

CCR, Title 8, Chapter 4, Subchapter 1 – Unfired Pressure Vessel Safety Orders CCR, Title 8, Chapter 4, Subchapter 1, Article 3 – Air Tanks

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling), Article 15, Sections 6551 -6552 – Unfired Pressure Vessels, Boilers, and Fired Pressure Vessels and Pressure Relief Devices

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling and Production), Article 17, Section 6556 – Identification of Wells and Equipment

CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 18, Sections 6857 - 6858 – Unfired Pressure Vessels, Boilers, and Fired Pressure Vessels and Pressure Relief Valves

CCR, Title 8, Chapter 4, Circular Letter PV-2006-4 – Standard for Acceptance of Non-Code Boilers and Pressure Vessels

CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 3, Sections 461 - 466 – Air Tanks

Pipeline Integrity Management

Federal & state regulations require pipeline integrity management plans for natural gas and crude oil pipelines including, among numerous other requirements, the installation of leak detection technology, automatic shutoff systems, or remote controlled sectionalized block valves or any combination of these technologies on new or replacement pipelines and retrofitting certain existing pipelines, and increased integrity testing for both jurisdictional pipelines and gas gathering lines within 300 feet of residences and other sensitive land uses.

49 CFR Part 192 – Transportation of Natural and Other Gas by Pipeline

49 CFR Part 195 – Transportation of Hazardous Liquids by Pipeline

Government Code Sections 51010-51019.1 (Elder Pipeline Safety Act and AB 864)

Public Resources Code Sections 3270.5 and 3270.6 and Health & Safety Code Section 101042 (AB 1420)

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7, Section 3321 – Identification of Piping

CCR, Title 8, Chapter 4, Subchapter 7 (General Industry Safety Orders), Group 2, Article 7, Section 3329 – Pipe Lines

CCR, Title 8, Chapter 4, Subchapter 14 (Petroleum Safety Orders, Drilling & Production), Article 9, Section 6533 – Pipe Lines, Fittings & Valves

CCR, Title 8, Chapter 4, Subchapter 15 (Petroleum Safety Orders, Transportation), Article 16, Section 6845 – Piping, Fittings & Valves

CCR, Title 14, Division 2, Chapter 4, Subchapter 2, Article 3, Section 1774 – Oilfield Facilities and Equipment Maintenance

Emergency Preparedness & Response

PRIMARY REGULATORS



Hazardous Materials Business Plan

Requires facilities that handle hazardous materials above a threshold quantity to submit an annual Hazardous Materials Business Plan to the CUPA and prepare a site map, develop an emergency response plan, and implement a training program for employees

California Health and Safety Code Division 20, Chapter 6.11, Sections 25500 - 25520
CCR, Title 19, Division 2, Chapter 4, Article 4
40 CFR Part 370.25

Release Reporting

The facility is required to make timely notifications of reportable releases

CCR, Title 14, Section 1722
CCR, Title 19, Section 2703

Spill Prevention Control & Countermeasure Plan

- Facilities required to have a Spill Prevention Control and Countermeasure (SPCC) Plan that provides for containment measures, inspection, notification and response in the event of a spill, including reporting, contingency planning, training and drills, incident command and safety.
- Agencies participate in annual tabletop drills with periodic full boom deployment exercises to ensure experienced personnel are ready in the event of a spill or release.
- A certified "Oil Spill Response Organization" is under contract to respond to spills, if additional resources are needed.
- The facility must provide a certificate of financial responsibility to address the costs of an oil spill.

40 CFR Part 112
California Oil Spill Prevention and Response Act (SB 2040)
Oil Pollution Control Act of 1990 overlaps with the state's Lempert-Keene-Seastrand Oil Spill Prevention Response Act
California Water Code 13271 – Release to Navigable Waters
CCR, Title 14, Sections 790 - 820.02 and 877-880 – Oil Spill Prevention and Response Planning
CCR, Title 14 Sections 1722 and 1773.1

Emergency Action Plan

Facilities required to have an Emergency Action Plan including notification, evacuation, account for personnel, marking of exits, training and drills, and incident command.

49 CFR Part 192.615 – Emergency Plans
49 CFR Part 194 – Response Plans for Onshore Oil Pipelines
49 CFR Part 192.605 and 49 CFR Part 195.403 – Emergency Response Training
49 CFR Part 195.402 – Procedural Manual for Operations, Maintenance, and Emergencies
CCR, Title 8, Subchapter 7, General Industry Safety Orders, Group 16, Article 109, Section 5192 – Hazardous Waste Operations and Emergency Response
CCR, Title 8, Subchapter 7, Section 3220 – Emergency Action Plans
CCR, Title 8, Subchapter 14 – Petroleum Safety Orders – Drilling and Production, Article 21, Section 6579 – Access to and Exit from Derrick and Rig Floor

Subsurface Operations

PRIMARY REGULATORS



Division of Oil, Gas, and Geothermal Resources



State and Regional

Permitting of Subsurface Operations

State regulations specify requirements for permitting, drilling, completion, servicing, plugging and abandonment of all oil and gas wells, with additional safety measures required for operations within 300 feet of residences and other sensitive land uses.

A Notice of Intent must be filed before commencing any operation permanently altering the casing of a well. Additional permits or approvals are required for well stimulation, with involvement of other state agencies.

Public Resources Code Section 3203

Oil & Gas Well Testing

Well integrity testing is required in a manner and frequency approved by DOGGR

CCR, Title 14, Sections 1724 et seq and 1748
CCR, Title 14, Section 1772 et seq

Fluid Injection

Fluid injection requires specific permits or approvals with detailed submissions to multiple agencies, monitoring of injection pressures, periodic testing of injection wells and detailed reporting of water sources and disposition

40 CFR Parts 144, 145, 146 & 148
CCR, Title 14, Sections 1724 et seq and 1748
Public Resources Code Section 3227 (SB 1281)
Health and Safety Code 25159 – 25159.25 (Prop 65)

Groundwater Monitoring

Groundwater monitoring is required for well stimulation operations in areas with protected water, and well stimulation requires additional permits and approvals from multiple agencies

Public Resources Code Sections 3150 - 3161 (SB 4)
CCR, Title 14, Division 2, Chapter 4, Subchapter 2, Article 4, Sections 1781-1789

Idle Well Management

Requires additional testing of idle wells and planned abandonment of long-term idle wells, with payment of additional fees

Public Resources Code Sections 3202 - 3208.1 (AB 2729)
CCR, Title 14, Section 1772 et seq

Additional Water Quality Protection

PRIMARY REGULATORS



Division of Oil, Gas, and Geothermal Resources



State and Regional



Maintenance of Well Cellars

Well grating, cellar boards and flooring must be maintained in good condition and kept drained of fluids
Sumps must be covered to prevent entry of wildlife

CCR, Title 14, Section 1774 – Oilfield Facilities and Equipment
CCR, Title 14, Section 1770 – Sumps

Protection of Water Quality

The facility must obtain a permit prior to discharging from any point source any pollutant to waters of the State, including storm water from industrial or construction sites

Clean Water Act Section 404 40 CFR Part 122.26
Health & Safety Code Sections 25249.5 - 25249-13

Waste Disposal

Federal and state regulations require that waste be characterized and disposed at an approved disposal site and preparation of waste minimization and pollution prevention plans

40 CFR Part 260
Health & Safety Code, Division 20, Chapter 6.5, Sections 25100 - 25259
CCR, Title 22, Section 66250 - 67100
CCR, Title 14, Sections 17301 - 17350

ATTACHMENT 5

3/21/2018 DPH REPORT COMMENT LETTER



DATE: March 21, 2018

TO: Uduak-Joe Ntuk, Petroleum Administrator, City of Los Angeles

FROM: Rock Zierman, CEO, California Independent Petroleum Association

RE: Los Angeles County Department of Public Health's Report on Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County

As Los Angeles Basin oil and gas producers, we fully understand the public has questions surrounding our operations. People want to know that their natural resources are being produced safely and that our government agencies take their regulatory responsibilities seriously. We also fully understand that natural resources are foundational to our economy, our national security, and our way of life. Nowhere do these two drivers – safe, responsible production alongside growing public demand – express themselves more fully than in Los Angeles. Oil production facilities in operation for more than a century are now surrounded by dense urban development and that neighboring community expects operational excellence. Operators desire the community to be informed and reasonable in its expectations. We can achieve both.

As you review the DPH Report, we urge you to also consider the decades of research and studies conducted by regulatory agencies throughout the State of California, as well as other academic researchers. That body of work speaks to the safety of oil and natural gas production under California's leading environmental standards.

As-written, the DPH Report's conclusions and recommendations lack grounding in scientific research. Specifically, the DPH Report:

- Lacks objective scientific data from LA County operations to support its own conclusions and recommendations,
- Relies on other jurisdictions outside of California when making recommendations or claims,
- Uses weak and unsubstantiated science,
- Uses misleading language,
- Ignores DPH's own data and previous studies,
- Recommends new regulations without addressing and enforcing current regulations in place, and
- Fails to recommend leveraging existing statewide funds and programs that would provide an inclusive urban air monitoring study in the summer of 2018.

Before policymakers adopt changes that will disrupt the local economy without actually improving public health, we would urge you to base your decisions on science. Here are some key data points to consider:



DPH Report lacks objective scientific data from LA County operations to support its own conclusions and recommendations.

- The report repeatedly acknowledges that studies have not shown a causal relationship between oil and gas facilities in LA County and adverse health effects.
- The report then dismisses the lack of a causal relationship with LA County operations, claiming “limitations of epidemiological studies,” “predicted effects,” “limited associations” and “lack of data.” Rather than asking the State to collect further data through the Study of Neighborhood Air Near Petroleum Sources (SNAPS) program, the report then recommends imposing significant new requirements on urban oil and gas operations. In doing so, the report ignores that its own LA County Oil and Gas Strike Team inspections of dozens of operations did not find safety or operational issues such as those observed at AllenCo and Firmin Street near downtown Los Angeles.
- The report implies criticism of Long Beach, Signal Hill and other cities with 300-foot setbacks, without noting their decades of direct operation and close oversight of oil and gas fields.
- As continuous examples and reports have shown, all aspects of LA County oil and gas operations are highly regulated. Therefore, mentioning “chemicals” is misleading as there is no context given to quantities or concentrations used, the equipment in which they are used, and the regulatory limits imposed on their use. The County’s own Fire Department oversees industrial chemical usage, including that associated with our operations.
- Unlike the Strike Team report, the DPH report did not include technically qualified or licensed experts on oil and gas well drilling, well stimulation or petroleum production. The list of report authors does not include any California-licensed engineers or geologists, or experienced petroleum engineers.

When comparing LA County oil and gas production to other jurisdictions, DPH chose to focus on distant states with vastly different operations and ignore the experience of local governments like Long Beach, Signal Hill and Kern County, which already have rigorous regulatory oversight over the industry.

- DPH based its report primarily on a literature review and phone calls with jurisdictions outside California.
- DPH presented a summary of setback distances adopted by various jurisdictions around the country, like Colorado and Texas, but just showing the setback is misleading. DPH did not acknowledge or describe the substantial differences in both oil and gas operations and regulatory standards between those jurisdictions and LA County operations. For example, none of the out-of-state jurisdictions have the emission controls in place required in the South Coast AQMD, so those jurisdictions are not directly applicable to operations in LA County.



- The discussion of setback distances in conjunction with other mitigation measures suggests LA County is considering a multifaceted approach to new ordinances, but acknowledges that some aspects of production are under the jurisdiction of other agencies such as DOGGR.
- While there are always limitations to studies, DPH reported that the available epidemiology studies could not support a conclusion “whether or not living near oil and gas activities is associated with long term health impacts.”
- One study that was a part of the epidemiological review drew health impact conclusions from those living near development in the Amazon Basin, which doesn’t have the same access to quality healthcare or stringent regulations in place as LA County.
- Areas that don’t apply California’s leading safety, labor and environmental standards were referenced, and in fact given more weight by DPH than studies in California.
- These other areas like Colorado and Texas operate high-pressure gas wells unlike LA’s low-pressure oil wells, a significant and important difference.
- Most of these areas are generally rural, unlike the regulations already in place in urban drilling sites.
- Additionally, we were surprised to learn that DPH contacted the State of Maryland, which is not a major oil and gas producing state, and yet ignored the Cities of Long Beach and Signal Hill when inquiring about setbacks.

DPH excludes its own data and previous studies.

- The report never mentions DPH’s comprehensive 2011 Community Health Assessment of the Inglewood Field, which found the health of residents near the field to be similar to the health of residents throughout Los Angeles County.
- The Strike Team conducted an audit and inspection of 557 wells and 15 oil and gas facilities in Los Angeles County during 2017 and noted that health risks were considered low, however DPH largely ignored the Strike Team findings in its report and recommendations.

DPH recommends new regulations without addressing and enforcing current regulations in place.

- The report should have been more direct and candid about the extensive oversight already applied to oil and gas production in LA County.
- In Long Beach, for example, the City is the operator of the Wilmington Field, and 26 federal, state and local agencies oversee production from safety, drilling, facilities, chemical use and emissions control to emergency response.
- California regulators know more about local oil and gas operations than they do about almost any other type of facility or operation – whether private or governmental. In fact, in the report’s discussion of risks and chemicals, oil and gas operations are not exceptional. DPH could have substituted hospitals, universities, county and utility maintenance yards, water treatment and sanitation



facilities, airports, and bioscience, aerospace and manufacturing facilities for “oil and gas facilities” in the report and draw the same conclusions.

- These other facilities routinely use and store large quantities of chemicals that are potentially hazardous.
- Most of these facilities are regulated by fewer agencies than oil and gas facilities.
- Many of these are also closer to residences than oil and gas wells.

DPH did not leverage existing statewide funds to conduct an inclusive air monitoring study.

- The report references the California Air Resources Board’s community sampling program – called SNAPS or Study of Neighborhood Air Near Petroleum Sources. SNAPS is fully funded by taxes on industry like greenhouse gas allowances, and CARB is currently selecting statewide locations to sample this summer. We were surprised that DPH didn’t specifically request that CARB prioritize urban LA sites for air sampling, including the two case studies – AllenCo and Firmin Street – as well as Southern California’s largest open petroleum seep at the La Brea Tar Pits.
- Leveraging the State’s SNAPS program would be a quick way to:
 - Close data gaps identified by DPH in the next few months,
 - Reduce the speculative nature of the report’s comments on air quality and,
 - Identify what additional measures, if any, may actually be warranted to address emissions in the community, whatever the sources.
- We hope the County will constructively leverage the existing, fully-funded SNAPS program to answer questions posed by the DPH report and identify ways to improve air quality in urban areas, from whatever source, and use the SNAPS sampling data to prioritize verified emissions sources for additional review and mitigation.

The report closely evaluates and describes the Department’s concerns about two urban sites (AllenCo and Firmin Street) from 2013-2016, both of which were closed by regulatory agencies.

- Similar concerns were not found in the Strike Team’s inspections of hundreds of wells from other operators in 2017 by the Public Health, Regional Planning and Fire Departments.
- Even at AllenCo, DPH’s own investigation noted that about 46 percent of local residents were not even aware of their proximity to an oil production site, casting doubt on the level of disturbance from these operations. However, DPH’s report extrapolated the AllenCo and Firmin issues to all wells in urban residential areas County-wide.
- The County should focus on the dense urban sites where concerns have been raised, not try to cast a broad net over all wells across the County, and should expressly exclude oil and gas operations already closely regulated by cities like Long Beach and Signal Hill.



- Having the SNAPS results will help the County to prioritize resources and operations for further study, rather than applying a one-size-fits-all approach that the report seems to suggest and that runs counter to the Strike Team findings.

The report does not consider that the oil and gas operations, including the drilling of wells and construction of tanks and other facilities, preceded the building and of nearby structures.

- It is important to recognize that oil and gas wells and facilities did not move into the dense residential areas identified by the DPH, but rather housing was built around them as a result of land use decisions by the city.
- With the current regulations that are enforced and adhered to, the Strike Team concluded that “the risk levels were considered low for risks associated with hydrogen sulfide gas, operating pressure, and drilling frequency.

It is important to note that oil production has been part of the history of Los Angeles County for more than 100 years. The industry is regulated by more than 26 local, state and federal agencies, and operates under the strictest safety and environmental regulations in the world. Oil production continues to play an instrumental role in sustaining the region’s middle class, and generates more than \$1.8 billion for our local economy, including more than \$200 million in state and local taxes. That money is used on key public services including education and public health and safety.

Additionally, California produces only 28% of the oil and gas it consumes and imports the rest. New restrictions on oil and gas production in Los Angeles means California will need to tanker in more imported oil into its busy ports from foreign countries with abysmal human rights records and few environmental protections to support its energy demands.

On a final note, local oil and gas producers in LA County and City comply with extensive and stringent emission regulations enforced by the South Coast Air Quality Management District (SCAQMD). These regulations are specifically designed to protect public health and safety by controlling air emissions and odors for people living and working near production facilities. Given that these producers already abide by the already strictest environmental controls in the nation, the addition of these unnecessary further restrictive measures would most likely adversely impact their business and the local economy.

CIPA is committed to working with the city to bolster public understanding of our operations. CIPA represents the major oil producers with operations within the CITY/COUNTY including Sentinel Peak Resources, California Resources Corporation, E&B Natural Resources, Signal Hill Petroleum, Termo, Brea Canyon, Breitburn Energy, and Pacific Coast Energy Corporation.

ATTACHMENT 6

5/8/2018 MRS LETTER TO DPH



May 8, 2018

Cyrus Rangan, Director
Toxicology and Environmental Assessment
Los Angeles County Department of Public Health
695 S. Vermont Avenue,
South Tower, 14th Floor,
Los Angeles, CA 90005

Re: Review of DPH letter to CIPA

Dear Dr. Rangan:

MRS Environmental has reviewed your April 26, 2018 letter to the California Independent Petroleum Association (CIPA) that provides a response to CIPA's comments on the Department of Public Health (DPH) Report on Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County. In that letter, DPH makes certain assertions that are of concern to MRS Environmental about the DPH Report and the potential for the public to be misled in regard to MRS's involvement in said report. In an attempt to clarify potential misconceptions that may emanate from your letter, MRS would like to make the record clear by stating that while we reviewed various early drafts of the DPH Report, at the request of the Department of Regional Planning, and provided hundreds of comments on the Report; our comments were in some cases accepted, in others partially accepted, and in many instances disregarded. MRS continues to believe that the DPH Report includes many inaccurate and misleading statements. MRS wants to make the record clear that MRS did not serve as a technical expert or preparer of the DPH Report. Furthermore, MRS does not endorse, support or agree with the DPH Report in its final form.

If you have any questions, please do not hesitate to call me at 805.289.3930. I can also be reached by email at luis.perez@mrsenv.com.

Best Regards,

A handwritten signature in black ink, appearing to read "Luis F. Perez", written in a cursive style.

Luis F. Perez
Senior Project Manager

cc: Angelo Bellomo, DPH
Rock Zierman, CIPA
Amy Bodek, DRP
Elaine Lemke, County Counsel

ATTACHMENT 7

2014 VENTURA COUNTY COUNSEL VESTED RIGHTS MEMO

**MEMORANDUM
COUNTY OF VENTURA
COUNTY COUNSEL'S OFFICE**

**LEGAL ANALYSIS OF ANTIQUATED OILFIELD
CONDITIONAL USE PERMITS**

The County of Ventura's ("County") ability to impose new conditions on antiquated oilfield permits is very limited. Because of the vested rights doctrine and constitutional protections afforded these permits, the County can impose new, narrowly tailored conditions on these permits only when a compelling public necessity, such as danger, harm or public nuisance, or significant violations exist, and not through an ordinary exercise of the police power for the general welfare.

If an antiquated oilfield permit contains open-ended conditions that allow for future requirements or modifications to the permit, the permit language might provide a limited basis for new conditions based on the terms of the permit. Older permits do not contain such language, and imposition of new conditions under this theory would require detailed analysis of each permit's terms and the conditions sought.

ANALYSIS

A. BACKGROUND

The drilling of wells for oil and gas production has been continuously subject to a permit from the County since the adoption of the County's first zoning ordinance in 1947. (Ventura Co. Ord. No. 412, §16 II.10., adopted March 18, 1947.)

Over time, the zoning ordinance has become more stringent in its regulation of oil and gas exploration and production and the conditions imposed on use permits have become more stringent. The language authorizing the oil and gas exploration and production use in permits, as well as conditions on the permits, vary greatly depending on when the use permit was first issued or later modified at the permittee's request.

The County's ordinance provisions for oil permits must be interpreted in a manner consistent with constitutional requirements, as analyzed below.

B. VESTED RIGHTS AND PERMIT MODIFICATIONS

A county may, under its police power, impose new requirements on an antiquated oilfield conditional use permit when a modification to the permit is sought by the

permittee. In such instances a county has broad powers to apply new modern conditions to a permittee-initiated request, subject to principles of reasonable relationship, essential nexus, rough proportionality and preemption. (See Gov. Code, § 65909; *Nollan v. California Coastal Com'n* (1987) 483 U.S. 825 [107 S.Ct. 3141]; *Dolan v. City of Tigard* (1994) 512 U.S. 374 [114 S.Ct. 2309]; *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1618-1624.)

Vested rights limit the power of a county to impose new, more restrictive zoning regulations, new conditions and other use limitations on a property owner after a certain point in the approval process or after actual development has occurred. (See *City of Claremont v. Kruse* (2009) 177 Cal.App.4th 1153, 1179 [holding that zoning moratorium may operate retroactively to require denial of pending applications or nullify permits issued but not utilized, but may not operate retroactively to divest permittee of vested rights previously acquired].)

In *Avco Community Developers, Inc. v. South Coast Regional Com.* (1976) 17 Cal.3d 785, the California Supreme Court stated the vested rights doctrine as applied to land use as follows:

“[I]f a property owner has performed substantial work and incurred substantial liabilities in good faith reliance upon a permit issued by the government, he acquires a vested right to complete construction in accordance with the terms of the permit. [Citations.] Once a landowner has secured a vested right the government may not, by virtue of a change in the zoning laws, prohibit construction authorized by the permit upon which he relied.” (*Id.* at p. 791.)

The vested rights doctrine protects a permit holder’s right not only to construct, but also to use the premises as authorized by the permit. (*County of San Diego v. McClurken* (1951) 37 Cal.2d 683, 691.) Also, for purposes of analyzing the scope of a vested right to operate a business, a business cannot be broken down into components and vested rights recognized for less than the entire business operation. (See *Hansen Brothers Enterprises, Inc. v. Board of Supervisors* (1996) 12 Cal.4th 533, 565-566 [indicating there is “no authority for refusing to recognize a vested right to continue a component of a business that itself has a vested right to continue using the land on which it is located for operation of the business.”].)

The vested rights rule is grounded upon the constitutional principle that a vested right is a property right which may not be taken without due process of law or just

compensation. (*Urban Renewal Agency v. California Coastal Zone Conservation Com.* (1975) 15 Cal.3d 577, 583-584.) When a conditional use permit has been issued and then relied upon by the permittee, giving rise to a vested right, the permit becomes immunized from impairment or revocation by subsequent government action. This rule is subject to the qualification that such a vested right, while immune from divestment through ordinary police power regulations, may be impaired or revoked if the use authorized or conducted under the permit constitutes a menace to public health and safety or a public nuisance. (*Highland Development Co. v. City of Los Angeles* (1985) 170 Cal.App.3d 169, 186.) Thus, a vested right creates a property right in the permit holder which cannot be terminated or impaired by the imposition of new conditions *at all*, unless constitutional requirements addressing the permittee's rights of due process are met. (See *Washington v. Glucksberg* (1997) 521 U.S. 702, 721-722 [117 S.Ct. 2258]; *Kerley Industries, Inc. v. Pima County* (9th Cir. 1986) 785 F.2d 1444, 1446.)

There are both procedural and substantive due process constitutional requirements that apply to governmental interference with such rights. The procedural requirements include notice to the permittee, a hearing on the termination of the permit or impairment of the permit through modified conditions, findings based on evidence received at the hearing and a decision based on the findings. (See *Trans-Oceanic Oil Corp. v. Santa Barbara* (1948) 85 Cal.App.2d 776, 797; *Topanga Assn. For a Scenic Community* (1974) 11 Cal.3d 506, 511.)¹¹ The substantive due process requirements are that vested rights cannot be terminated or impaired by ordinary police power regulations, and can be revoked or impaired (such as by new conditions imposed by a county) *only* to serve a "compelling state interest," such as a harm, danger or menace to public health and safety or public nuisance, and that the government's interference with the vested right be

¹¹ "The fourteenth amendment to the constitution of the United States provides that no person shall be deprived of life, liberty, or property, without due process of law. Article I, Section 1, of the constitution of California, provides that all men have certain inalienable rights, among them being those of enjoying liberty and possessing and protecting property, and section 13 thereof provides that no person shall be deprived of life, liberty, or property, without due process of law. The deprivation of such right without due process of law would be a violation of these provisions. The meaning of this is that no one can be deprived thereof without notice and an opportunity for a hearing before some tribunal authorized to determine the question. . . ." (*Trans-Oceanic Oil Corp. v. Santa Barbara, supra*, 85 Cal.App.2d at p. 796.)

narrowly tailored to address the compelling interest and its magnitude. (See *Washington v. Glucksberg*, *supra*, 521 U.S. at p. 721.)

These principles are best explained by the two following cases.

In *Davidson v. County of San Diego* (1996) 49 Cal.App.4th 639 (“*Davidson*”), the court addressed an attempt by the county to impose a new 650-foot setback requirement on a property owner that had a vested right to a building permit for a crematorium without the new setback. The court explained that:

“Vested rights, of course, may be impaired ‘with due process of law’ . . .” (*Davidson*, *supra*, 49 Cal.App.4th at p. 648.)

“The vested rights doctrine in the land use context ‘is subject . . . to the qualification that such a vested right, *while immune from divestment through ordinary police power regulations, may be impaired or revoked if the use authorized or conducted thereunder constitutes a menace to the public health and safety or a public nuisance.* [Citations.]’ (*Highland Development Co. v. City of Los Angeles* (1985) 170 Cal.App.3d 169, 186 [] (italics added), disapproved on other grounds in *Morehart v. County of Santa Barbara* (1994) 7 Cal.4th 725, 743, fn. 11 [].) Public welfare demands may even require the complete destruction of vested property rights. (*Sunset Amusement Co. v. Board of Police Commissioners* (1972) 7 Cal.3d 64, 80 [].)” (*Davidson*, *supra*, at p. 649.)

“The constitutional question, on principle, therefore, would seem to be, not whether a vested right is impaired [by a change in the law], but whether such a change reasonably could be believed to be sufficiently necessary to the public welfare as to justify the impairment.” (*Davidson*, *supra*, at p. 649.)

“Probably the single most important factor to be considered in determining whether a particular impairment is constitutionally permissible is the nature and extent of the impairment. “The severity of the impairment measures the height of the hurdle the . . . legislation must clear.” ’ [Citations.] Other important factors to be considered are the nature, importance and urgency of the interest to be served by the challenged legislation; and whether the legislation was appropriately tailored and limited to the situation necessitating its enactment. [Citations.]” (*Davidson*, *supra*, at p. 649.)

The court concluded that, while the usual exercises of the police power in the land use context are not so directly related to danger or potential danger to the health and safety (such as down-zoning of uses, lot densities and height requirements) to be applied to the property owner's permit, it was conceivable that the 650-foot setback requirement could be applied to the crematorium project, but only if the county could demonstrate that such a setback was necessary to prevent the operation of the crematorium from being a danger or nuisance to the public. (*Davidson, supra*, at p. 650.)

Similarly, in *O'Hagen v. Board of Zoning Adjustment* (1971) 19 Cal.App.3d 151, ("*O'Hagen*"), the court reviewed a city's revocation of a use permit for the operation of a drive-in restaurant for which the permittee held a vested right under an ordinance which allowed revocation of permits "for violation of conditions and other good cause upon notice and hearing." The court stated that:

"Once a use permit has been properly issued the power of a municipality to revoke it is limited. (*Trans-Oceanic Oil Corp. v. Santa Barbara [supra]*,] 85 Cal.App.2d [at p.] 783 [].) Of course, if the permittee does nothing beyond obtaining the permit it may be revoked. (*Trans-Oceanic Oil Corp. v. Santa Barbara, supra*.) Where a permit has been properly obtained and in reliance thereon the permittee has incurred material expense, he acquires a vested property right to the protection of which he is entitled. (*Trans-Oceanic Oil Corp. v. Santa Barbara, supra*, at pp. 784-787; *Dobbins v. Los Angeles* [(1904)] 195 U.S. 223, 239 [[] 25 S.Ct. 18]; *Jones v. City of Los Angeles* [(1930)] 211 Cal. 304, 309-312 []; see *Brougher v. Board of Public Works* [(1928)] 205 Cal. 426, 433-434 [].) When a permittee has acquired such a vested right it may be revoked if the permittee fails to comply with reasonable terms or conditions expressed in the permit granted (*Trans-Oceanic Oil Corp. v. Santa Barbara, supra*, at p. 783; *Brougher v. Board of Public Works, supra*, at p. 433) or if there is a compelling public necessity. (*Jones v. City of Los Angeles, supra*, at p. 314; see *Lawton v. Steele* [(1894)] 152 U.S. 133, 137 [[] 14 S.Ct. 499].") (*O'Hagen, supra*, 19 Cal.App.3d at p. 158, italics added.)

The court further explained that procedurally:

"The constitutional requirements are met with respect to the right of revocation for good cause when notice is given to the licensee or permittee of the charges made against him and he has been given an opportunity to be heard in his defense." (*O'Hagen, supra*, at p. 160.)

And that substantively:

“[I]n order to justify the interference with the constitutional right to carry on a lawful business it must appear that the interests of the public generally require such interference and that the means are reasonably necessary for the accomplishment of the purpose, and not unduly oppressive upon individuals. (*Lawton v. Steele, supra*, 152 U.S. [at p.] 137 [].)

As observed in *Lawton*, ‘The legislature may not, under the guise of protecting the public interests, arbitrarily interfere with private business, or impose unusual and unnecessary restrictions upon lawful occupations.’ (At p. 137 []; see *Dobbins v. Los Angeles, supra*, 195 U.S. [at p.] 236 [].)” (*O’Hagen, supra*, at p. 159.)

“In the present case we perceive that since plaintiff acquired a vested right in the use permit we must equate the term ‘good cause’ with ‘compelling public necessity.’ Such ‘compelling public necessity,’ in turn, must be viewed in the context of a public nuisance, i.e., whether the operation of plaintiff’s drive-in restaurant constituted a public nuisance in fact. If it did constitute a nuisance in fact, our inquiry is then directed to whether there was a compelling necessity warranting the revocation of the use permit.” (*O’Hagen, supra*, at p. 161.)

The court then indicated that conditions should be imposed on the permit to eliminate any public nuisance, if possible, rather than to prohibit the business operations by revocation of the permit. (*O’Hagen, supra*, at p. 165.)

Moreover, permits subject to vested rights are afforded special judicial protection by the courts when there is judicial review of the governmental decision to impair or revoke them. Longstanding vested rights under a use permit are generally treated as creating “fundamental vested rights” to use the property in the manner specified in the conditions for purposes of judicial review. This results in the court applying an “independent judgment” standard of review, rather than the more deferential “substantial evidence” standard of review ordinarily applied to land use decisions. (See *Malibu Mountains Recreation, Inc. v. County of Los Angeles* (1998) 67 Cal.App.4th 359, 368-370; *Goat Hill Tavern v. City of Costa Mesa* (1992) 6 Cal.App.4th 1519, 1526.) So, after affording the government’s findings a presumption of correctness, the court may, upon reviewing the record, exercise its own judgment in making its own findings and reach a different decision from that of the government. (See *Fukuda v. City of Angels* (1999)

20 Cal.App.4th 805, 819). Thus, these fundamental vested rights enjoy “heightened protection against government interference” under the due process clause. (*Washington v. Glucksberg, supra*, 521 U.S. at p. 720.)

Consistent with the above case law, a county must establish the facts and make its decision justifying any modification of conditions or revocation of an antiquated oilfield permit on the basis of harm, danger or menace to the public health and safety or public nuisance.

The vested right in a permit entitles a permit holder significant and heightened judicial protections from revocation, imposition of new regulations, and changes to the permit. To impose new conditions on antiquated permits, a public agency has to demonstrate that for each condition it imposed, there was a danger or menace to public health and safety or public nuisance causing public concern that was addressed by the new condition in a manner commensurate to the level of public concern. The vested rights doctrine and constitutional principles of due process prevent a county from a general exercise of its police power to add modern conditions to antiquated oilfield permits just for the sake of improving their operation for the general welfare.

In addition to the harm/nuisance qualification on the exercise of a vested right, there are other limitations to vested rights. The rights which may vest are no greater than those specifically granted by the permit and its conditions. (*Santa Monica Pines, Ltd. v. Rent Control Board* (1984) 35 Cal.3d 858, 866; *Metropolitan Outdoor Advertising Corp. v. City of Santa Ana* (1994) 23 Cal.App.4th 1401, 1401-1404.) Accordingly, a vested right may be modified or revoked for cause if the permit holder fails to comply with the conditions in the permit. (*O’Hagen, supra*, at p. 158.)

While violation of conditions or laws do provide a basis for permit revocation or modification separate from the “danger to the public/public nuisance” basis, courts continue to apply the heightened scrutiny to the government’s actions revoking or impairing permits on the bases of noncompliance with conditions or violations of law. The court decisions indicate that where failure to comply is extensive and alternative remedies are not feasible, revocation of a permit can be justified. (See *Malibu Mountains Recreation, Inc. v. County of Los Angeles, supra*, 67 Cal.App.4th at p. 359 [involving longtime, multiple uses that violated underlying zoning ordinance and failure to engage in initially allowed use].) However, heightened scrutiny arising out of the vested right in the permit and its due process protections would require a county to “narrowly tailor” its action, and when alternative remedies can achieve compliance with permit conditions, the county would need to pursue such alternatives to revocation if feasible.

(See *Korean American Legal Advocacy Foundation v. City of Los Angeles* (1994) 23 Cal.App.4th 376, 391-393, fn. 5 [indicating that harsh remedy of revocation requires strictest adherence to principles of due process and that alternative remedies to revocation (such as additional conditions or controls) that achieve goal of eliminating violations ought to be pursued if feasible].)

Another qualification on the exercise of a vested right is the existence of open-ended conditions in a vested permit which contemplate future limitations. Such open-ended conditions may restrict the permit holder's vested right when those limitations are subsequently enacted.

For example, in *Russ Bldg. Partnership v. City and County of San Francisco* (1988) 44 Cal.3d 839, 846, a developer was ordered to pay a transit impact development fee enacted after the permit was issued and substantial construction had commenced, based on a permit condition that required future participation in some type of transportation funding. The post-permit issued transit development fee was found by the court to be within the scope of the condition originally imposed and was properly applied to the permittee on this basis.

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processing on
Palmer E

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 7:53 AM
To: Simmons, Carrie
Subject: FW: Number 3--Fwd: County General Plan/EIR Comments

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Daniel Chambers <danchambers55@gmail.com>
Sent: Thursday, February 27, 2020 12:35 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Fwd: Number 3--Fwd: County General Plan/EIR Comments

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

800 South Victoria Avenue, L#1740

Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and

farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

Laura McAvoy

I, Daniel James Chambers, fully support the content of this letter.

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 11:41 AM
To: Simmons, Carrie
Subject: FW: Comments on General Plan/EIR

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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For online permits and property information, visit VC Citizen Access



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Katie Mcmonigle <katiemcmonigle.vb@gmail.com>
Sent: Thursday, February 27, 2020 10:13 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: de.nicola@cox.net
Subject: Comments on General Plan/EIR

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my great grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income/worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government’s housing policies.
3. The EIR does not adequately address the enormous “indirect impacts” that will occur as a result of implementing the General Plan, calling them “less than significant.”

4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.

5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,

Mary Katherine Chambers McMonigle

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 11:41 AM
To: Simmons, Carrie
Subject: FW: Comments on General Plan/EIR

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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From: Michael/Maggie McMonigle <mmmcmonigle@gmail.com>
Sent: Thursday, February 27, 2020 10:24 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Don and Bev de Nicola <de.nicola@cox.net>
Subject: Comments on General Plan/EIR

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

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Sincerely,

Margaret Chambers McMonigle

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 11:42 AM
To: Simmons, Carrie
Subject: FW: Comments on General Plan/EIR

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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From: Margaret McMonigle <mmmcmonigle@sbcglobal.net>
Sent: Thursday, February 27, 2020 10:34 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Don and Beverly Denicola <de.nicola@cox.net>
Subject: Comments on General Plan/EIR

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

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Sincerely,

Edward Michael McMonigle

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 11:42 AM
To: Simmons, Carrie
Subject: FW: 2040 Ventura County plan
Attachments: County GP Comment Letter - McLoughlin Family Committee.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Kelley Raymond <kelray08@sbcglobal.net>
Sent: Thursday, February 27, 2020 11:28 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 Ventura County plan

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Please see attached letter.
Sincerely,
Kelley Raymond
McLoughlin Ranch

Sent from my iPhone

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

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sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:10 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan EIR
Attachments: 2040 General Plan EIR.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Bob & Anna Chambers <lacostachambers@gmail.com>
Sent: Thursday, February 27, 2020 11:51 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan EIR

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I support the attached letter.

Robert M Chambers



February 19, 2020

Ventura County CoLAB
Board of Directors & Officers

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Chairman

Mark Mooring, Buon Gusto Farms
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Jeff Nobriga, California Resources Corp.,
Director

Tony Skinner, IBEW Local 952
Director

Alex Teague, Limoneira
Director

Andy Waters, Waters Family Farms
Director

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC)
County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors" (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

- 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
- 2) The cost per acre to purchase each category of farmland;
- 3) The anticipated cost of establishing a conservation easement for each category of farmland;
- 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
- 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
- 6) Any information that could constitute a "plan" for management of farmland in conservation easements;

- 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
- 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
- 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...**Therefore, the potential for conflicts would be minimal. This impact would be less than significant**" (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatically” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

- 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
- 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
- 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,



Louise Lampara
Executive Director

I support this letter —
Robert M. Chambers

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:10 PM
To: Simmons, Carrie
Subject: FW: Comments on Ventura County General Plan DEIR
Attachments: Comments on VC Gen Plan DEIR.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
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Ventura County General Plan Update. Join the conversation at VC2040.org
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From: Bob & Anna Chambers <lacostachambers@gmail.com>
Sent: Thursday, February 27, 2020 11:51 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on Ventura County General Plan DEIR

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I support the attached letter.

Robert M Chambers

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it's not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no "substantive" change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across

sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

I support this letter -
Robert M. Chambers

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:11 PM
To: Simmons, Carrie
Subject: FW: Ventura County General Plan flaws
Attachments: VC Gen Plan flaws.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



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From: Bob & Anna Chambers <lacostachambers@gmail.com>
Sent: Thursday, February 27, 2020 11:52 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County General Plan flaws

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I support the attached letter.

Robert M Chambers

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, "unlike the Preble area, services are not readily available to the Olivas lands." This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is "not included in the City's sanitation district because of problems with water pressure." This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district's pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.
3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,

I support this letter -
Robert M. Chambers

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:11 PM
To: Simmons, Carrie
Subject: FW: [EXTERNAL] Fwd: Ventura Letter for the kids to sign
Attachments: Ventura Letter for the kids to sign.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Taylor, Marie <Marie.Taylor@providence.org>
Sent: Thursday, February 27, 2020 11:49 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: FW: [EXTERNAL] Fwd: Ventura Letter for the kids to sign

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Ms. Curtis,

I appreciate the value of your time and request your attention to the following letter. I am one of the many of the McLoughlin family members. My family has been tied to this land for many years and I have a great deal of interest preserving this land for our family and future generations. My daughter's middle name is McLoughlin as we are very proud of our family heritage. I understand that as population exponentially increases additional roadways need to be created to provide access for all, however, I believe that there are options. Please consider the impact that the current plans will have on our family.

Sincerely,
Marie Taylor

This message is intended for the sole use of the addressee, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If you are not the addressee you are hereby notified that you may not use, copy, disclose, or distribute to anyone the message or any information contained in the message. If you have received this message in error, please immediately advise the sender by reply email and delete this message.

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I am a part of the McLoughlin Family. We have been farming in Ventura County for approximately 150 years. We currently own 300 acres of agricultural property off of Olivas Park Road in the County of Ventura near the Ventura Marina on Harbor Rd, in proximity to the City of Ventura.

The McLoughlin family has farmed this land and other parcels for generations going back to 1863. It remains our desire to continue this legacy, however, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. That, however, is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. The DEIR, however, never analyzes the loss of farmland resulting from these changes in infrastructure – it's not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. No further details beyond this conclusory statement are provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. It's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.
Sincerely,

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:11 PM
To: Simmons, Carrie
Subject: FW: VCTC Comments on Draft 2040 General Plan and EIR
Attachments: VCTC Comments on Ventura County Draft 2040 General Plan and EIR_02.27.2020.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Amanda Fagan <afagan@goventura.org>
Sent: Thursday, February 27, 2020 12:06 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Downing, Clay <clay.downing@ventura.org>
Subject: VCTC Comments on Draft 2040 General Plan and EIR

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Susan,

Please see attached comments from VCTC on the Ventura County Draft 2040 General Plan and Environmental Impact Report.

Best of luck as you finalize the Draft General Plan and move forward through the adoption process!

Kind regards,

Amanda Fagan
Director of Planning and Policy
Ventura County Transportation Commission
950 County Square Drive, Suite 207
Ventura, CA 93003
Ph. (805) 642-1591 ext. 103

afagan@goventura.org

www.goventura.org



Ventura County
Transportation
Commission



Ventura County Transportation Commission

February 27, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Avenue, L #1740
Ventura, California 93009-1740

Subject: Draft Environmental Impact Report for the County of Ventura Draft 2040 General Plan

Dear Ms. Curtis,

Thank you for the opportunity to review and comment on the County of Ventura Draft 2040 General Plan and Environmental Impact Report (EIR), dated January 2020. Ventura County Transportation Commission (VCTC) acknowledges the County of Ventura for your efforts to improve circulation and mobility in Ventura County through the General Plan Update.

VCTC acknowledges the Draft 2040 General Plan and EIR for the many goals, policies, and programs that seek to address vehicle miles traveled (VMT) through sound planning, investments in complete streets and active transportation, and support for safe and efficient roadway and multimodal transportation system improvements. In particular, Goal CTM-2 (Integrated Multimodal Transportation System) and its corresponding policies incorporate State and regional transportation planning priorities such as safe routes to school and transportation system connectivity. Goal CTM-3 (Bicycle Network) and its policies also help to meet regional and countywide goals to establish an accessible and interconnected bicycle network, informed by the VCTC Wayfinding Study. Goal CTM-4 provides for additional measures to reduce VMT through support for alternative transportation, increased vehicle occupancy, and use of public transit.

With regards to Policies CTM-1.11 (Safe and Efficient Goods Movement) and CTM-1.12 (Surface Transportation Assistance Act Planning), VCTC respectfully requests the addition of VCTC as a coordinating agency along with Caltrans and the cities. With support from Caltrans, the Southern California Association of Governments (SCAG), and the Port of Hueneme, VCTC currently has a Freight Corridor Study underway to improve safety and efficiency of goods movement across the County.

VCTC staff have reviewed Section 4.16 (Transportation and Traffic) of the Draft EIR and found the methodology, analysis, and thresholds of significance with respect to VMT to reasonably conform to the recommended standards established by the Governor's Office of Planning and Research. However, the EIR could better explain why multiple data sources were used and the process for selection of those various data sets used to calculate VMT. Replication of the VMT calculation methodology presented in the EIR may be complicated at the project level given the large number of data sources.

Ventura County Resource Management Agency, Planning Division
February 27, 2020
Page Two

VCTC continues to research and consider our role as the regional transportation planning agency in implementation of Senate Bill 743 and support for our member jurisdictions. Given the Draft General Plan and EIR reliance on VCTC's Ventura County Transportation Model (VCTM) to calculate baseline and future VMT, we respectfully request that the County of Ventura coordinate with VCTC as the County develops its process for project-level impact analysis to determine whether and how the VCTM would be used. The EIR does not specify a process or methodology for VCTM use for project-level analysis. The level of model use has the potential to affect the demand for and requirements of VCTC resources.

Despite the aforementioned efforts to reduce the environmental impact of transportation and traffic contained in the 2040 General Plan, the Draft EIR identifies significant and unavoidable environmental impacts associated with VMT and County roadway standards and safety. These identified impacts reflect the importance of countywide and regional planning efforts and investments to facilitate safe, efficient, multimodal, and alternative transportation options across Ventura County and Southern California. The Draft 2040 General Plan recognizes this need in Goal CTM-7 (Funding for Transportation Facility and Service Needs) and policies to support local, State and Federal funding for transportation.

The County of Ventura has further opportunities to address these impacts by linking housing and transportation through the forthcoming update to the General Plan Housing Element and by collaborating with the cities to create and maintain vibrant, desirable places to live, work, and play, reflected in the 2040 General Plan Vision and Guiding Principles and in alignment with the SCAG Regional Transportation Plan / Sustainable Communities Strategy.

Should you have any questions concerning this review, please contact me at (805) 642-1591 (ext. 103) or by email at: afagan@goventura.org.

Sincerely,



Amanda Fagan
Director of Planning and Policy

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:11 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment
Attachments: 0154_001.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Gary Cushing <ceo@camarillochamber.org>
Sent: Thursday, February 27, 2020 12:16 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

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Susan:

Please see attached comment letter.

Thanks,

Gary

To Whom it May Concern,

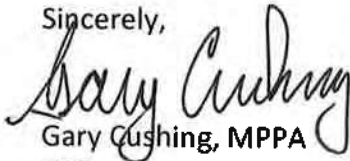
The Camarillo Chamber of Commerce appreciates the efforts that Ventura County puts forth to support the community and make the county a better place to live.

We are always looking for changes in the best interest for businesses in Camarillo. Because of this, there are some changes and additions that should be made to the DEIR. First off, the document is incomplete and lacks support to many of the decisions made on policy changes.

As an association of many businesses and organizations within Ventura County, we are writing to you because we have many worries with the Draft EIR that we find alarming. It would be beneficial to complete the housing element of the document prior to pushing out the EIR as that is a main concern for many citizens in Camarillo and Ventura County. The project description lacks many important details and sections are incomplete. The regional economy is struggling which effects our community members and the policy changes within the document are only making this worse. Ventura County is experiencing a housing crisis due to the economical declines and we need to create beneficial change to continue to support our community.

Thank you for allowing us to express our concerns and for being in support of the comfort and safety of the members of our county. Please complete the unfinished areas of the document and focus on the key points that will benefit our economy.

Sincerely,



Gary Cushing, MPPA

CEO

Chamber of Commerce

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:12 PM
To: Simmons, Carrie
Subject: FW: Ventura County plan 2020

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Jenn Foster <jenniferfoster7317@yahoo.com>
Sent: Thursday, February 27, 2020 12:43 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County plan 2020

Hello,

I would urge the County to include how the agency would establish a "preponderance of evidence that the resource is not archaeologically or culturally significant." How would this be done, by whom would it be done, and could any decisions be appealed?

The number of archaeological sites in Ventura County is decreasing at a rapid rate and the definition of archaeological significance should be revised, "that all Native American archaeological sites, should be considered significant since the prehistoric identity of the Indigenous groups is tied solely to archaeological evidence." Loss of any sites would irrevocably result in loss of significant portions of their culture.

Thank you for your consideration.

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:12 PM
To: Simmons, Carrie
Subject: FW: Draft EIR 2040 County General Plan

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Margaret K <kimball58@gmail.com>
Sent: Thursday, February 27, 2020 12:45 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Draft EIR 2040 County General Plan

Attn: Board of Supervisors

As you review the Draft EIR for the County 2040 General Plan, I hope you pay close attention to some serious problems evident in the current draft. I have highlighted a few below.

As a farmer affected by the Thomas Fire in December 2017, I find it astonishing that the EIR makes no mention of policies from the proposed General Plan that will significantly increase fuel load in high fire risk areas. Watching houses burn one after another, seeing orchards so seriously damaged the only recourse was to remove and replace all trees, and listening to friends, family members, and others recount the horrors of losing valued possessions and livelihoods, I am appalled that this proposed General Plan contains policies that will once again put this county at severe risk. CEQA demands that policies that increase risk from wildfire be analyzed. Where is this done?

Over and over I read how Supervisors in this county value agriculture. Yet, the County has failed to analyze the impact on agriculture of competition for water supplies. Where is the analysis when the EIR admits increased development resulting from the General Plan will result in less water for irrigation? And WHY is data older than 2015 used in the Agriculture chapter? This does not speak to an understanding of farming in this county. Experts have long lauded this county for effective water management long before it was ever mandated by state regulation. And that water management was undertaken by FARMERS.

Mitigation Measure AG-2 requires small development projects to purchase farmland to preserve in perpetuity. The County and Supervisors are well aware this mitigation measure is infeasible. County Counsel stated that a similar measure proposed at LAFCO in 2016 was infeasible and could not be included in an EIR. That has not changed.

Please approach this important document thoughtfully for ALL constituencies in the county.

Margaret Kimball
Kimball McPheron Ranch

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:12 PM
To: Simmons, Carrie
Subject: FW: General Plan / EIR Comments

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Anna Chambers <achambers316@gmail.com>
Sent: Thursday, February 27, 2020 1:01 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan / EIR Comments

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

I support this letter -

Anna M. Chambers

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:12 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan EIR
Attachments: 2040 Gen Plan EIR.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Anna Chambers <achambers316@gmail.com>
Sent: Thursday, February 27, 2020 1:03 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan EIR

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I support the attached letter.

Anna M. Chambers



February 19, 2020

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC)
County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as "capable of being accomplished in a successful manner within a reasonable period of time, **taking into account economic, environmental, social, and technological factors**" (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

- 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
- 2) The cost per acre to purchase each category of farmland;
- 3) The anticipated cost of establishing a conservation easement for each category of farmland;
- 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
- 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
- 6) Any information that could constitute a "plan" for management of farmland in conservation easements;

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Director

Alex Teague, Limoneira
Director

Andy Waters, Waters Family Farms
Director

- 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
- 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
- 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the potential for conflicts would be minimal. This impact would be less than significant" (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as "programmatic" or "project", must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

In 2014, the California Court of Appeal stated in a ruling that "[T]he fact that this EIR is labeled a 'project' rather than a 'program' EIR matters little.... Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the "rule of reason," rather than any semantic label accorded to the EIR."

It is CoLAB's opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that "...a reduction in available water resources for irrigation" is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

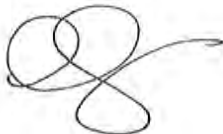
APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

- 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
- 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
- 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,



Louise Lampara
Executive Director

I support this letter -
Anna M. Chambers

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:12 PM
To: Simmons, Carrie
Subject: FW: Comments on VC Gen Plan DEIR
Attachments: Comments on VC Gen Plan DEIR.pdf

Follow Up Flag: Follow up
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Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Anna Chambers <achambers316@gmail.com>
Sent: Thursday, February 27, 2020 1:03 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on VC Gen Plan DEIR

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

I support the attached letter.

Anna M Chambers

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it's not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no "substantive" change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across

sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

I support this letter -
Anna M Chambers

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:13 PM
To: Simmons, Carrie
Subject: FW: VC Gen Plan DEIR flaws
Attachments: VC Gen Plan DEIR flaws.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Anna Chambers <achambers316@gmail.com>
Sent: Thursday, February 27, 2020 1:04 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: VC Gen Plan DEIR flaws

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I support the attached letter.

Anna M. Chambers

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, "unlike the Preble area, services are not readily available to the Olivas lands." This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is "not included in the City's sanitation district because of problems with water pressure." This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district's pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.
3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,

I support this letter -
Anna M Chambers

Simmons, Carrie

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Sent: Thursday, February 27, 2020 1:13 PM
To: Simmons, Carrie
Subject: FW: VC Gen Plan DEIR flaws
Attachments: VC Gen Plan DEIR flaws.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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Subject: VC Gen Plan DEIR flaws

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800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

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5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

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Sincerely,

I support this letter -
Anna M Chambers

Simmons, Carrie

From: Downing, Clay
Sent: Thursday, February 27, 2020 1:45 PM
To: Simmons, Carrie; General Plan Update
Subject: FW: Comments on Ventura County General Plan DEIR
Attachments: Comments on VC Gen Plan DEIR.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Carrie,

Please see the attached public comment and retain for our records unless you already received separately from Susan.
Best,

Clay Downing, MPPA | Associate Planner
Permit Administration and General Plan Update Sections
Clay.Downing@ventura.org



Ventura County Resource Management Agency | Planning Division
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Office 805.650.4047

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From: Curtis, Susan <Susan.Curtis@ventura.org>
Sent: Thursday, February 27, 2020 1:10 PM
To: Downing, Clay <clay.downing@ventura.org>
Subject: FW: Comments on Ventura County General Plan DEIR

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740

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From: Bob & Anna Chambers <lacostachambers@gmail.com>

Sent: Thursday, February 27, 2020 11:51 AM

To: Curtis, Susan <Susan.Curtis@ventura.org>

Subject: Comments on Ventura County General Plan DEIR

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I support the attached letter.

Robert M Chambers

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

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I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it's not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no "substantive" change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across

sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

I support this letter -
Robert M. Chambers

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 1:55 PM
To: Simmons, Carrie
Subject: FW: VC2040 Public Comment
Attachments: VC2040 Background report comments_Tessa Salzman_2-27-2020.docx; VC2040 Background report comments_Tessa Salzman_2-27-2020.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



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From: Tessa Salzman <tessajsalzman@gmail.com>
Sent: Thursday, February 27, 2020 1:53 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>
Subject: VC2040 Public Comment

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Hi Susan,

Please acknowledge receipt of my comments on the Background Report, draft General Plan and draft EIR.

Thank you for incorporating these comments into your General Plan Update process. PDF and word document attached.

--
Tessa Salzman
Food Sourcing Director, Food Share
M.S. Food Systems Policy and Planning
[707 845 5846](tel:7078455846)

Date: February 27, 2020
Re: Comment on VC 2040
To: Susan Curtis & the Ventura County Planning Department,

My comments focus on the Agriculture Element of the General Plan regarding issues that need to be discussed in Background Report under Existing Conditions or more thoroughly addressed in the draft EIR. I offer policy solutions to address each issue area, which should be included in the General Plan.

Given the state of climate change, the State's mandate to climate action planning, and the fact that Ventura ranks the fastest warming county in the lower 48 states¹, policy for climate change mitigation and adaptation that outlines a supportive transition and requires action is essential.

I also want to note that I have a deep respect for the farmers of Ventura County and work closely with many of the largest growers in Ventura County including Driscolls, Boskovich, and Deardorff. I understand the challenges they face every day regarding food safety standards, pest management, soil management, unpredictable markets, unpredictable and changing weather patterns, the cost of land, and labor management. Given that Ventura County is 57% agricultural land, I also acknowledge the unique potential we have to mitigate climate by adopting new practices and managing agriculture as part of a larger eco-system.

1. Pesticide and nutrient management:

Issues missing from report

- Annual pounds pesticide used in Ventura County
 - One study from 2009 shows pesticides and nutrients found above benchmark rates.²
- Amount and location of use of artificial nitrogen, which is a significant driver of agricultural greenhouse gas emissions in manufacture, transport and oxidizing of soil carbon³
 - The proposed greenhouse gas inventory shows no decrease in nitrogen use.
- Nutrient leaching into groundwater as well as storm water runoff into ocean
- Reliance on applicant to have considered alternative pest management strategies when applying to use regulated materials.
- Limited expertise to provide science-based guidance about the range of alternatives to application of synthetic pesticides and benefits of alternatives

¹ Scott Wilson, *Fires, floods and free parking: California's unending fight against climate change* (2019). <https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-california/>

² Salvatore S. Mangiafico, *Nutrients and Pesticides in Stormwater Runoff* (2009). (<https://journals.ashs.org/horttech/view/journals/horttech/19/2/article-p360.xml>)

³ Rushan Chai, *Greenhouse gas emissions from synthetic nitrogen* (2019). <https://cbmjournal.biomedcentral.com/articles/10.1186/s13021-019-0133-9>

- Some growers choose synthetic pesticides as first approach to pest management because they lack knowledge, expertise, curiosity, or motivation to question prevailing norms
- Some growers may rely on the advice of consultants who have a conflict of interest because they make their living selling pesticides
 - The University of California definition of Integrated Pest Management (IPM) needs to be the default policy in the General Plan that begins with preventive measures and biologically based approaches
 - IPM needs to be mainstream and discussed in the General Plan as the strategy to be used by all growers, not just for “alternative, sustainable” or “innovative” farmers. Pest management, with a specific focus on IPM, should be a separate goal in the Ag Element.
- Unknown cumulative effects of single pesticides used over time and multiple pesticides used simultaneously
 - Particularly with respect to the impact on farmworkers and neighboring receptors (residents, schools, hospitals, etc.)
- Decrease in biodiversity and resulting decline in ecosystem function
- Impacts of Roundup and other herbicides, which can have a material cost in orchards of +/- \$400 per acre not including labor.
 - Round impacts include killing plants and beneficial fungi that give soil tilth, particularly toxic to the beneficial bacteria that help plants grow; active ingredient glyphosate harms metabolic functioning in gut linings of all organisms
 - Limited awareness of how to design weeds out with mulch, cover crops, native plants that create plant communities that allow no space;
 - Limited awareness about studies, which prove carcinogenicity. Even when used according to label, many herbicides and pesticides are not safe to ecosystems, waterway, children, etc.
- Practices for building soil health, which is impacted by the use of all synthetic inputs, need to be outlined and assessed.
 - Healthy soil retains more water, is more effective in managing invasive pests and plants, and is less susceptible to erosion.
- Background Report does outline the reasons our county is susceptible to more agricultural pests and disease (Port Hueneme imports, proximity to urban LA, mild climate, diverse crops, etc)
 - This provides justification for a sharp assessment and action plan for preventive forms of pest management instead of a reactionary approach as problems arise.
 - Ex: Asian citrus psyllid (ACP) = threat to citrus; Glassy winged sharpshooter (GWSS); Invasive Shot Hole Borer, Polyphagous Shot Hole Borer; Fusarium wilt on celery and cilantro

Solutions & Policy guidance

- The top two resources I recommend drawing from are here:
 - Roadmap for Integrated Pest Management https://www.cdpr.ca.gov/docs/pestmgt/ipm_roadmap.pdf
 - Roadmap to an Organic California: Policy Report <https://www.ccof.org/roadmap-organic-california>

- Run off should be limited by reducing the use of certain herbicides and pesticides and by preventing soil erosion and retaining onsite eroded sediments that could contain residual pesticide; increase rain water infiltration through building soil health
- IPM solutions; ban glyphosate and other toxic herbicides, toxic synthetic pesticides from public landscape management. There are many local governments which have already adopted such policy⁴
- County Agriculture Commissioner has a large role in supporting local agriculture practices and the County should invest in Ag Commission staff with relevant expertise
- As outlined in a report by UCLA Law⁵, the Ag Commissioner should:
 - Assure consideration of alternatives to synthetic pesticides
 - Collaborate with the CA Department of Pesticide Regulation to track, study and advise regarding cumulative effects. Please see report for more detail.
- Ventura County Agricultural Commission issues permits to pesticide applicators; they are responsible for pest detection, management, and prevention and should engage in documented discussion as part of their permit process about IPM
 - IPM offers a pest management system that prevents outbreaks, saves farmers money and builds ecological systems instead of degrading them. It primarily supports the Sustainability Goal #5. IPM is misplaced in the Niche and Specialty Agriculture Goal #3. The General Plan should be updated to reflect the relevance and feasibility of this management approach.
- The narrative that pesticides (used outside of an IPM strategy) are needed for food security within the County is unsubstantiated. Omit Policy AG 4.4 to frame all pest management policy under IPM.

2. Ag land as a resource

Issues to consider

- The impacts of tillage and exposed soil are not addressed in this report. These aspects of our farming system in Ventura County create an environment susceptible to erosion, nutrient and water runoff, less water retention, less carbon sequestration potential
- Between 2004 and 2016, land designated as Prime Farmland decreased by 6,216 acres or 13.17 percent, according to the Background Report
 - Important Farmland declined by approximately 7.5 percent (p9-9)
 - Impacts of farmland conversion to the environment include less permeable land, less potential carbon sequestration, less potential ecosystem services
- The impact of local agricultural practices such as pesticide & NPK use, tilling, monoculture, and bare soil that lack cover crops, on the changing quality and condition over time of Important Farmland.
 - These factors all lead to the degradation of soil quality, water retention, biological ecosystems, and economic vitality of the agriculture sector

⁴ Gosia Wozniacka, *Community-Led Efforts to Ban Glyphosate in Public Spaces Pick up Speed* (2019). <https://civileats.com/2019/12/17/community-led-efforts-to-ban-glyphosate-in-public-spaces-pick-up-speed/>

⁵ Tim Malloy, *Governance on the Ground*. <https://law.ucla.edu/centers/environmental-law/emmett-institute-on-climate-change-and-the-environment/publications/governance-on-the-ground/>

- Rates and causes of local erosion should be discussed.

Policy solutions

- Identify, develop and promote technical and financial support for building healthy soil.
- Collaborate with our local Cooperative Extension
- Funding is available for farmers through CDFA's Healthy Soils Program
<https://www.cdfa.ca.gov/oefi/healthysouils/>

3. Food Security

Issues to consider

- The lack of institutional or community attention to barriers to food security
- Supply chains are vulnerable to road damage from earthquakes, extreme weather events and floods.
- Exporting 60% of county production to foreign countries impacts their capacity to achieve food security. Exporting increases greenhouse gas emissions.
- Address the carbon footprint and quality as well as food security implications from 85% of food consumed in Ventura County being sourced outside the County.

Policy solutions

- Identify and remove barriers to marketing and increased consumption of local agriculture products; strengthen Policy AG-4.1 to localize food supply
- Adopt the Good Food Purchasing Program at the City level and include school districts in these efforts. <https://goodfoodpurchasing.org/>
- Require a growing measurable proportion of food purchased by county hospital, jail and cafeteria be from local sources
- Encourage and recognize school districts and businesses that steadily increase procurement of products grown in the county
- Assure that buy-local policy includes all agriculture products, not just fresh produce

4. Water

Issues to consider

- Background Report does not discuss surface water and ground water quality or contamination baseline data or impacts on ecosystems, humans and agriculture
 - This report should include existing levels of sediment, agricultural inputs including nutrients and pesticides, and other pollutants from other industries such as chloride and other salts.
- Report acknowledges that drought reduced crop values in the 2013-2014, which was the 2nd lowest rainfall since 1930
 - Specific farm and soil management practices can improve soil health and water retention
- Ag water sources in 2013: Only 4.2% was recycled water, according to the Background Report
- Report outlines how many gallons of water are used to grow 1 pound food of various crops, but does not include how much of our water is exported to other countries in agriculture products

- Ag water sources: Surface water 8.8%
 - Diverting surface water causes ecosystem damage and reduces river flow
- This report lacks an assessment of and commentary on over-fertilization and excess irrigation. UCCE should be consulted for relevant studies such as excess nitrogen in strawberries by local advisor Andre S. Biscaro.
- It should be noted if and when there is a lack of available data from UCCE, CDFA, and other resource agencies in order to help shape their research agenda priorities.

Policy solutions

- Increase water efficiency and retention through building healthy soil, which means encouraging cover crops, low or no till, crop rotation and reducing inputs.
- Establish measurable and enforceable goals for water conservation and use of recycled water for all sectors
- Increase infrastructure and ability to use more recycled water throughout the County.
- Support growers with financial and technical resources to adopt practices that retain more water

5. Regulatory setting

- There are 7 Area plans in our county, which are listed in the Background Report and contain goals and policies related to agricultural resources.
 - These Area Plans should consider environmental impact review and hyper localized mitigations for the affected area.
- According to the Background Report:
 - The Farmland Protection Policy Act is a federal law to minimize loss of prime agricultural land.
 - The Farmland Mapping and Monitoring Program requires counties to report land converted to or from agricultural land every two years
 - We should be tracking and monitoring the causes and outcomes of loss that occurs in Ventura County.
 - The causes should be addressed thoroughly in the Land Use Element.
 - The climate impacts of this loss should be better understood, discussed and mitigated.

6. General comments & recommendations

- The Background Report and draft EIR lack a discussion of how to build healthy soils and their important role in climate change mitigation, as well as water supply, reducing drought, and reducing flooding. The benefits to farmers and local ecosystems and biodiversity are also essential factors to highlight.
- The Background Report outlines that buying local commodities has gained traction in recent years due to climate change concerns and its potential effects on crop production.
 - Therefore, the structure of our local markets and supply chains must be included in this discussion.
 - Mitigations should center on building out our regional supply chain infrastructure to increase local sales (only 15% of our local production is currently consumed within County)

- Food security and long-term economic stability are weakened by long-distance exports. Regional export of agricultural products also reduces local consumption and misses the opportunity for local economic development
- Greenhouse gas emissions inventory does not cover emissions associated with exports and imports
- Section 9.2 Agricultural Production; Existing Conditions discusses weather patterns such as average temperature and moisture
 - This section lacks a discussion of climatic changes over time. Ventura is fastest warming county in lower 48 states⁶. The unpredictable changes occurring at a faster rate than even before will require agile adaptation and mitigation of further climate change specifically through preventative pest management and practices that retain water.
- All figures and tables should be current: Table 9-8 Top 10 Commodity Sales and subsequent tables are 2015 data. 2018 data is available.

Summary of Recommendations

- IPM is about prevention instead of treating the symptoms and should be the most predominate pest management strategy in our County.
- Create infrastructure for consideration of alternatives and cumulative effects of pesticides.
- Adopt programs and policies for building soil health
- Consider all barriers to food security
- Assess water quality as indicator of all land management practices
- Assess energy and water embodied in exports
- Reference the resources included in this policy recommendation letter, specifically regarding a roadmap moving forward towards IPM and organic.

If we do not consider all of these factors, which contribute to and exacerbate climate change, then the factors that are considered and outlined in the Existing Conditions section will soon be obsolete.

Thank you for your consideration. Please feel free to reach out with questions or for further discussion.

Submitted by
 Tessa Salzman
 M.S. Agriculture, Food & Environment Policy
 M.A. Urban & Environmental Policy & Planning
 707-845-5846
 tessajsalzman@gmail.com
 Ventura, CA 93001

⁶ Scott Wilson, *Fires, floods and free parking: California's unending fight against climate change* (2019).

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 2:00 PM
To: Simmons, Carrie
Subject: FW: 2020 general plan EIR comment letter
Attachments: 2020 General Plan letter to Supervisors.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Elaine CVALETTTO <elainesomis@msn.com>
Sent: Thursday, February 27, 2020 1:59 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: chris@rinconstrategies.com; Louise Lampara <llampara@colabvc.org>
Subject: 2020 general plan EIR comment letter

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

H ELAINE CVALETTA
4031 PRICE ROAD, SOMIS, CA 93066
elainesomis@msn.com 805-479-1422

February 27, 2020

Ventura County Board of Supervisors:
Susan.Curtis@ventura.org

Re: 2040 General Plan Draft EIR Comment

I have some concerns about the 2040 General Plan Report (EIR) that has recently been released. With 700+ policies and implementation programs how can you say you have finished this plan in 6 weeks? 12-18 + months is, what I am understanding, what it takes to adequately complete all the analysis and their impacts.

As an 85 year old farmer, in this county since 1957, it appears that more and more you are not looking what is best for individuals nor long/short term solutions to many issues.

As with a recent issue, a few people stood up talking about "their rights" and to heck with other's rights. Maybe the initial decision, to approve the crop, was made in haste. As well as extending the ban to plant the crop to 10 ½ months. Why not go for another 45 days? You have just taken income from those that farm and taken the side of those who "yell" the loudest.

Wildfire Corridor is another issue – restrictions on brush removal leads to increased fuel load and increased wildfire risk. Did your decisions make things better or worse?

Why would you require small development projects to purchase farmland to preserve in perpetuity? Where are small pieces of farmland available and who will manage these small ag preservation parcels. Again, as I see it, take away from those in agriculture to give to others who have not put in any dollars, sweat or tears in the land. Again, increasing regulatory demands on agriculture.

How current was the background information that was used to understand and evaluate the County's impact analysis. My understanding is that it was older than 2015.

What does the analysis show on these indirect impacts that affect landowners? Such as: theft and vandalism, complaints by those who know nothing about agriculture, water competition, speeding cars in rural areas without regard for farm machinery, etc.

There are many other areas that I feel were not considered and most certainly will continue to increase farming operational costs such as: converting ag equipment to electric, requiring all electric water pumps, water supply increases.

Sincerely,
H Elaine Cavaletto

cc: chris@rinconstrategies.com and llampara@colabvc.org

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 2:19 PM
To: Simmons, Carrie
Subject: FW: Comments on General Plan/EIR

Follow Up Flag: Follow up
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Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Meghan McMonigle <meghancmcmonigle@gmail.com>
Sent: Thursday, February 27, 2020 2:12 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Bev Denicola <de.nicola@cox.net>
Subject: Comments on General Plan/EIR

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Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my great grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government’s housing policies.

3. The EIR does not adequately address the enormous “indirect impacts” that will occur as a result of implementing the General Plan, calling them “less than significant.”

4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.

5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,

Meghan Elizabeth McMonigle

--

Meghan McMonigle

KTLA 5 Technology Segment Producer

5800 Sunset Blvd. Los Angeles, CA 90028 | *Office: 323-460-5520 | Cell: 323-371-4042*



Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 2:19 PM
To: Simmons, Carrie
Subject: FW: Ventura County GPU EIR - SoCalGas Comments
Attachments: Ventura GPU EIR Comment Letter_2.27.2020_Final.docx; Ventura County GPU&CAP Comment Letter.docx

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Susan Curtis | Manager
General Plan Update Section
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From: Pezda, Jennifer <JPezda@socalgas.com>
Sent: Thursday, February 27, 2020 2:16 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Ventura, Maria M <MVentura@socalgas.com>
Subject: Ventura County GPU EIR - SoCalGas Comments

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Hi Susan,

Please find attached SoCalGas' comment letter for the County's General Plan Update EIR. I've also attached our prior comment letter on the General Plan Update and Climate Action Plan, for reference.

Let me know if you have difficulty accessing any of the documents. Our regional public affairs representative is also hand-delivering our comments to County Staff.

Thank you!

Sincerely,
Jenny Pezda

Jenny Pezda, MESM | Environmental Policy Advisor | **SoCalGas**

Office: 213-244-4570

Cell: 213-321-8443





Jennifer Pezda, MESM
Environmental Policy Advisor
555 W. Fifth Street, GCT 21C5
Los Angeles, CA 90013

Email: jpezda@semprautilities.com

6/21/2019
Susan Curtis
RMA Planning Division, General Plan Update
800 South Victoria Avenue., L #1740
Ventura, CA 93009-1740

RE: Ventura County 2040 General Plan Update and Climate Action Plan

Dear Ms. Curtis,

SoCalGas appreciates the opportunity to submit comments on County's Preliminary Public Review Draft General Plan (Draft Plan). We have been continually engaged in the development of the Draft Plan and further appreciate the opportunities to attend public workshops, planning commission meetings, and participate in online surveys as means to submit feedback throughout the planning process. We believe this document will provide valuable direction for the County to pursue effective, long-term sustainable planning goals. SoCalGas especially supports the County's direction to pursue policies that promote furtherance of renewable energy development and expansion while also contributing to regional and local resiliency. We support many of the policies currently included in the Draft Plan and look forward to partnering with the County to achieve these ambitious strategies and actions. We do believe the Draft Plan could benefit from active identification and incorporation of the following takeaways:

- **The Draft Plan can be greatly enhanced by pursuing significant synergies between production and use of renewable natural gas (RNG) and the County's renewable energy goals, waste reduction/diversion targets, and emission reduction strategies.**
- **Because the pipeline system that delivers RNG is inherently resilient to aboveground climate events, it can greatly help increase the resiliency of County infrastructure and operations to climate hazards and impacts.**

Most prominently, we are excited at the potential opportunities that exist between the county's waste reduction and diversion targets, as stated in the Draft Plan, and development and use of RNG resources that can drive and incentivize their attainment. RNG can be produced from existing waste streams within the County, including organic waste, green waste, and agricultural waste. This aligns with the goals of Strategy PFS-5.5 – "support the beneficial reuse of agricultural wastes...such as energy generation" and PFS-5.6 – "promote value-added alternatives to solid waste management, such as...energy." Further, the organic waste diversion incentives generated by RNG production would also help the County achieve the organic waste diversion targets mandated under SB 1383. Similarly, use of existing waste

resources to produce RNG aligns with the County's emphasis to increase the use of renewable energy as stated in Policy COS-8 and its supporting strategies that advocate promoting development and use of renewable energy resources (including bioenergy) and transitioning to zero net energy buildings (Strategies COS-8.1 and 8.5, respectively). We are ecstatic to see that such synergies are acknowledged in the GHG Mitigation and Climate Adaptation Measures in the County's Draft Climate Action Plan, Appendix B of the Draft Plan, such as in Policy AG-L which prompts the County to develop a program to coordinate public-private local investment in biogas control systems.

Because RNG is produced from existing methane sources that are otherwise being emitted into the air, unabated, capturing these emissions to produce RNG helps reduce both regional and local methane and GHG emissions. As a short-lived climate pollutant, methane has a greater global warming potential than carbon dioxide—specifically, methane is approximately 28 times more potent than carbon dioxide in the atmosphere^{1,2}. From a lifecycle perspective, because RNG production removes a greater quantity of more potent GHG emissions from the air than what it produces at end uses, its production is a **carbon negative process**, and can be used to offset other uses that cannot achieve carbon neutrality. As the County is aware, SoCalGas recently filed a request with the California Public Utilities Commission seeking to offer RNG to all customers, which would have significant potential to significantly reduce both local and regional GHG emissions. In fact, replacing only 20% of existing natural gas supply with RNG achieves the same emissions reductions as electrifying the entire building sector by 2030, but at one-third of the cost.³ For these reasons, we recommend that the Draft Plan include additional policies and supportive strategies to promote both production and use of RNG as an incentive mechanism to enhance organic waste reduction/diversion, in addition to use as a renewable fuel option for decarbonizing the building and transportation sectors.

The underground natural gas system is more resilient than the aboveground electric system

Use of RNG as a renewable energy source also has synergies with County resilience goals and targets. As stated at the recent Planning Commission General Plan Update Workshop on June 13th, 2019, County staff directly acknowledged the dual importance of decarbonizing energy supplies but while also keeping in mind the critical importance of energy reliability. As we know, the impacts of global climate change are set to continually increase in severity, which will result in more severe wildfires, storms, and floods. Wildfire risk, specifically, is one of the most prominent climate change hazards facing the County, especially as just over the past two years Southern California has experienced two of the largest wildfires in the State's history that burned millions of acres and destroyed thousands of homes and property, a significant portion of which occurred within Ventura County. To this end, SoCalGas supports the draft policies

¹ IPCC. Global Warming Potential Values https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf

² California Air Resources Board (CARB). Understanding Global Warming Potentials. <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>

³ PR Newswire. New Study Advises Policymakers to Consider Renewable Natural Gas for Low-Carbon Buildings Strategy. August 8, 2018. <https://www.prnewswire.com/news-releases/new-study-advises-policymakers-to-consider-renewable-natural-gas-for-low-carbon-buildings-strategy-300691318.html>

aimed at enhancing local adaptive capacity such as Policy HAZ-11.4, which supports education and outreach efforts to inform local communities about climate change impacts, and Policy HAZ-P, which aims to identify critical infrastructure vulnerable to extreme heat.

As seen in the recent wildfires and mudslides that ravaged Southern California, energy system vulnerability is a significant factor that affects local resilience to such hazards. As the electric system is almost entirely aboveground, it is significantly more exposed to threats and, when impacted, can not only leave hundreds to thousands of residents without power at their homes, but also affect operation of critical facilities. For example, in 2017 the Thomas Fire damaged electric power lines throughout the City of Ventura. Because the City's water pumps to supply water to firefighters ran on electricity without any other form of backup power, firefighters were unable to get water from the pumps to put out burning residences⁴. If the water pumps had been connected to a backup power system, such as a natural gas generator, firefighters would have been able to access the water.

In contrast, as the natural gas system is mostly underground, it is very resilient to extreme weather events. For example, in 2012, after Superstorm Sandy, the entire natural gas system in the Northeast was essentially intact, allowing residents to support back-up generators, cook, and keep warm. Businesses with natural gas-powered fuel cells were able to operate and compressed natural gas (CNG) buses in New Jersey were used to shuttle residents to safety⁵. Further, when Hurricane Harvey temporarily disabled almost 30% of the nation's refining capacity, CNG shuttles were able to continue operating, and hospitals that had on-site combined heat and power systems were able to provide urgently needed medical attention, despite flooding. These examples demonstrate the critical role natural gas infrastructure can play in supporting local and regional energy supply resilience in the face of extreme climate events and use of renewable natural gas can achieve additional co-benefits in reducing GHG emissions.

SoCalGas has been engaging with stakeholders and consultants to conduct case studies and risk assessments of the natural gas system with the intent to demonstrate the security and resilience of our system. SoCalGas intends to use this information to help local and regional cities and counties undertake similar efforts to identify system and infrastructure vulnerability. We also offer our annual Climate Adaptation and Resilience Grant⁶ to local cities and counties to help fund efforts to update and develop local adaptation and resilience plans. We greatly appreciate recognition of our grant in the Draft Climate Action Plan and encourage the County to apply during this year's application period.

⁴ ICF. Case Studies of Natural Gas Sector Resilience Following Four Climate-Related Disasters in 2017.

<https://www.socalgas.com/1443742022576/SoCalGas-Case-Studies.pdf>

⁵ https://www.energy.gov/eere/articles/5-ways-alternative-fuels-aid-response-hurricanes-and-natural-disasters?utm_source=EERE+Weekly+Digest+of+Clean+Energy+News&utm_campaign=f048cbec65-EMAIL_CAMPAIGN_2017_09_25&utm_medium=email&utm_term=0_96dffafa2f-f048cbec65-34678197

⁶ SoCalGas Climate Adaptation and Resiliency Planning Grant Program. <https://www.socalgas.com/smart-energy/sustainability-at-socalgas/climate-grant>

Looking forward, we believe renewable natural gas will play an important role in the County's renewable energy plans and help it achieve State GHG emission reduction goals, organic waste diversion goals, as well as climate resiliency goals. Decarbonizing our natural gas delivery system keeps intact the inherent energy efficiencies of direct uses of natural gas, at lower carbon-content, while also demonstrating synergies with County waste reduction goals by boosting efforts to enhance organic waste management and recycling. SoCalGas appreciates the opportunities provided by the County to engage throughout the formation of this Draft Plan and hopes to continue communication for the duration of the planning process. If you have any questions, please do not hesitate to reach out via telephone or email. Thank you!

Sincerely,

A handwritten signature in black ink, appearing to be 'JP', written in a cursive style.

Jennifer Pezda, MESM
Environmental Policy Advisor
Southern California Gas Company



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RE: County of Ventura – Draft 2040 General Plan Update EIR

Dear Ms. Curtis,

Southern California Gas Company appreciates the opportunity to submit comments on the Draft 2040 General Plan EIR (“DEIR”) and believes the document will provide valuable direction for the County to pursue effective, long-term development goals, as well as enhance local sustainability objectives. In particular, we support proposed policies that encourage beneficial reuse of County-generated waste for energy generation. Such policies have great potential to help reduce County GHG emissions, especially from agriculture and human waste streams.

However, SoCalGas is concerned by one of the County’s proposed mitigation measures: MM GHG-1: New Implementation HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development:

Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development – To support the proposed reach codes under COS-S, the 2040 General Plan shall include a new program in the Hazards and Safety element that prohibits the installation of new natural gas infrastructure in new residential construction through amendments to the Ventura County Building Code. This program shall also be extended to include commercial building types such as offices, retail buildings, and hotels where the use of natural gas is not critical to business operations and contain appliances that can be feasibility substituted with electricity powered equivalents.” (pg. 4.8-45-46).

While we support the County’s attempt to reduce emissions associated with buildings, this mitigation measure is technology-restrictive, may actually increase emissions and will limit the County’s ability to explore other innovative approaches to achieve emissions reductions in the future without deleveraging residents and businesses to hedge themselves against climate risks such as wildfires and household rising energy costs.

This type of ban would contravene California state law and policy as it relates to the availability of natural gas as a resource for residents and to the provision of a reliable and resilient energy supply. In addition, such a ban raises concerns under federal law.

Further, the DEIR's analysis and treatment of MM GHG-1 is legally flawed under the California Environmental Quality Act ("CEQA"). First, the DEIR fails to consider, discuss or analyze the environmental effects of implementing MM GHG-1. Second, the County cannot rely on MM GHG-1 to mitigate GHG impacts caused by the 2040 General Plan because MM GHG-1 is "infeasible" under CEQA. Lastly, by finding that climate change impacts would remain significant and unavoidable even with implementation of MMs GHG-1 through GHG-3, the County has neglected to consider other GHG emission reduction strategies as potential mitigation in the DEIR.

1. The DEIR Fails to Analyze the Environmental Impacts Associated with MM GHG-1

CEQA Guidelines section 15126.4(a)(1)(D) provides that, if a mitigation measure would itself cause significant environmental impacts, those impacts must be discussed in the EIR.¹ Here, the DEIR discusses what MM GHG-1 would consist of (*i.e.*, implementation of programs to prohibit natural gas infrastructure in new residential development, otherwise known as "Reach Codes"), notes that MM GHG-1 would implement Policy COS-8.6, which "will encourage zero net carbon emissions building design, which was assumed for quantifying GHG reduction benefits of the program", and states that implementation of a Reach Code will be predicated on a "cost-effectiveness study" by the California Energy Commission ("CEC").² However, the DEIR fails to discuss the potential environmental effects from implementing a Reach Code that bans or restricts natural gas in residential and/or commercial buildings.

Substantial evidence indicates that adopting and implementing MM GHG-1 and Reach Codes could lead to the following significant environmental impacts under CEQA.

- ***Utilities and Service Systems*** – In the CEQA Guidelines Appendix G checklist,³ section "XIX. Utilities and Service Systems" asks whether proposed projects would "[r]equire or result in the relocation or construction of new or expanded water, wastewater treatment or storage drainage, *electric power*, ... facilities, the construction or relocation of which *could* cause significant environmental effects."

¹ 14 Cal Code Regs. § 15126.4(a)(1)(D); *see also Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1027; *Stevens v. City of Glendale* (1981) 125 Cal.App.3d 986; *Ocean View Estates Homeowners Assn., Inc. v. Montecito Water Dist.* (2004) 116 Cal.App.4th 396, 400 (mitigation measures employed to prevent downstream flooding associated with reservoir project may themselves have a significant environmental impact, but was not analyzed); *Gray v. Cty. of Madera* (2008) 167 Cal.App.4th 1099, 1118 (EIR did not address potentially significant impacts associated with water quality mitigation measures).

² DEIR at 4.8-47.

³ *See* Governor's Office of Planning and Research, Final Adopted Text of Revisions for CEQA Guidelines, http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf.

Adoption and implementation of a Reach Code would require new buildings to either be all-electric or, if mixed-fuel, likely subject to higher levels of energy efficiency than all-electric buildings. It is reasonably foreseeable that some developers will choose to develop buildings with all-electric energy, which will increase the demand for electricity; however, there is no analysis in the DEIR as to whether (i) the local grid has the generating resources and capacity to meet such increased demand for electricity, or (ii) whether the local public utility or load-serving entity has sufficient distribution or transmission assets to provide increased service in a safe and reliable manner.⁴ The DEIR fails to quantify increased electricity demand, how many additional generation, distribution or transmission assets may be needed to facilitate this increased demand, or how the construction or relocation of such assets could impact the environment.⁵

The need to substantially overbuild local power systems when natural gas is not used as a base load means that a much greater amount of land, habitat and related physical resources will be impacted by solar and wind generation facilities. In a scenario where natural gas is banned across the state, new solar arrays and wind farms will need to be fabricated, transported to, and installed throughout California at more than five times the historical rate of deployment every year for the next 25 years.⁶ This deployment will significantly impact the physical environment across California. The fabrication, transportation and construction of the required generation facilities will also generate GHG emissions that would have cumulative climate change impacts.

In addition, as more electric energy is utilized new transmission capacity must be fabricated, transported to and installed throughout the state to connect with thousands of miles of new nationwide transmission lines. Additional transmission facilities will have significant impacts to the physical environment and result in aesthetic and potentially cultural impacts. The fabrication, transportation, and construction of new transmission equipment and capacity will also generate GHG emissions.

Because renewable generation is intermittent, California will also be required to increase power storage capacity to unprecedented levels if natural gas is banned. This could equate to over 300 Tesla Powerwall 2 systems per household, which each cost about \$7,800 for hardware and equipment.⁷ Alternatively, California would need to

⁴ See, e.g., Pub. Res. Code § 451 (“Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.”).

⁵ Cf. *California Clean Energy Comm. v. City of Woodland* (2014) 225 Cal.App.4th 173, 208 (EIR for shopping center lacked required energy analysis despite stating, among other things, that existing facilities were sufficient to serve the project: “In addition, a substation, multiple utility lines (60 kV, 115 kV, and 230 kV), and gas transmission lines exist in the area to serve the buildout of the proposed project.”).

⁶ Clean Air Task Force, Comments On SB 100 Joint Agency Report - Charting a Path to a 100% Clean Energy Future, September 19, 2019, <https://efiling.energy.ca.gov/GetDocument.aspx?tn=229800&DocumentContentId=61244> (CATF 2019).

⁷ See, J. Jenkins et al., Deep decarbonization of the electric power sector insights from recent literature, Energy Innovation Reform Project (Mar. 2017), <https://www.innovationreform.org/wp-content/uploads/2018/02/EIRP->

dramatically increase hydropower capacity by increasing the size of state reservoirs by as much as 100 times above current levels. Battery storage on this scale would have significant hazardous materials, human health, fire, fire suppression, and policing services, GHG emissions, and physical impacts. The construction of new hydropower storage would similarly have significant air quality, aquatic plant, animal and habitat, land, GHG emissions, water and hydrology, public safety, and other impacts.

CEQA caselaw holds that EIRs must consider the effects of changes to the environment that can result from an expansion of facilities, services, or utilities to serve the project.⁸ Here, DEIR Chapter 4.17 does not cross-reference MM GHG-1 and fails to discuss how implementation of MM GHG-1 may lead to expanded facilities, services or utilities that would be necessary in the future when a Reach Code is adopted.

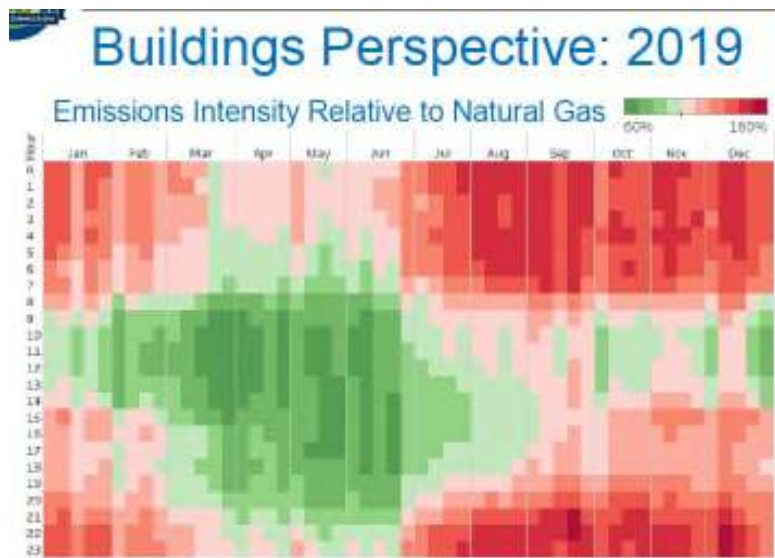
- **Greenhouse Gas (GHG) Impacts** – Implementation of a Reach Code under MM GHG-1 is predicated on the assumption that 100% electrified buildings are more energy-efficient and have a smaller carbon footprint than buildings with gas-powered appliances. Yet, multiple, independent studies demonstrate that such an assumption is not accurate.
 - In May 2019, the U.S. Department of Commerce, National Institute of Standards and Technology (“NIST”) published a study of the energy use, environmental impacts, and economic performance of residential buildings using either electricity or natural gas for space and domestic water heating. The analysis was based on a single-family home meeting all applicable building code requirements in Maryland. The NIST research concluded that a natural gas-heated home is more economical, results in “lower environmental impacts across numerous impact categories,” including lower GHG emissions, has a faster heating response time and generates a greater level of indoor comfort than an all-electric residence. In particular, GHG emissions were found to be higher because of the greater amount of fuels required to produce electricity for home use compared with the use of natural gas equipment in a residence.⁹
 - Although California has a larger proportion of renewable utility-scale energy than Maryland, consistent with the NIST study the CEC has also shown that, on average, natural gas generates substantially lower GHG emissions than electrical building use in California. As shown below, in 2018 the CEC estimated that electricity use in buildings produces a greater level of GHG emissions than

Deep-Decarb-Lit-Review-Jenkins-Thernstrom-March-2017.pdf at 5 (“Battery storage is infeasible for such long duration seasonal storage. For comparison, the total storage capacity envisioned by Jacobson et al. is equivalent to 37.8 billion Tesla Power Wall 2.0 home energy storage systems—320 Power Walls per U.S. household”).

⁸ *Goleta Union Sch. Dist. v. Regents of Univ. of Cal.* (1995) 37 Cal.App.4th 1025; *El Dorado Union High Sch. Dist. v. City of Placerville* (1983) 144 Cal.App.3d 123.

⁹ E. O’Rear, D. Webb, J. Kneifel and C. O’Fallon. *Gas vs electric: Heating system fuel source implications on low-energy single-family dwelling sustainability performance*. Journal of Building Engineering. September 2019 issue. Full text available at https://tsapps.nist.gov/publication/get_pdf.cfm?pub_id=926046.

natural gas about 60 percent of the year in California.¹⁰ Natural gas results in lower GHG emissions during a significant majority of all morning and evening hours in all months, the periods of highest residential energy demand. The significantly lower GHG emissions from natural gas use in California buildings reflects the fact that, except during daytime hours from about March to June, intermittent solar and wind is insufficient to meet in-state building energy demand. When intermittent renewable energy is not available, electrical generation is less efficient and produces a greater level of GHG emissions than natural gas use in California buildings.



- Other researchers have also questioned whether requiring all electric buildings might, however unintentionally, result in higher GHG emissions. Household energy demand tends to peak in the morning and evening hours, when residents are preparing to leave for or returning from work, school or other activities and when intermittent renewable power, particularly solar, is unavailable. At these times, electric supplies must be produced from other sources, including natural gas-fired power plants. Converting fuels, such as natural gas, to electricity to meet home demands is less efficient than directly using natural gas. As a result, a Stanford University researcher has estimated that when renewable power is unavailable, such as during the evening hours, residential electricity consumption produces *three times* more GHG emissions than natural gas.¹¹
- The County cannot assume that, over time, GHG emissions from electrical generation will be reduced during peak morning and evening periods when

¹⁰ CEC, Building Decarbonization, 2018 Update – Integrated Energy Policy Report, Presentation by M. Brook at June 14 2018 IEPR Workshop at 16, <https://efiling.energy.ca.gov/GetDocument.aspx?tn=223817>.

¹¹ See Anthony R. Kavscek, *Is a natural gas ban an 'antidote to climate change'?*, San Jose Mercury News (Nov. 12, 2019), https://mercurynews-ca.newsmemory.com/?publink=754c8d2e3_13411ac. Professor Kavscek is a member of the Energy Resources Engineering faculty at Stanford University.

natural gas is currently a lower emission energy source in the state. Recent studies indicate that even if additional intermittent wind and solar generation capacity is deployed, gas-fired electrical facilities will almost certainly remain essential to stabilize the state’s power grid. The gas-fired generators serving the state, however, may be forced to increasingly operate as short-term inefficient “peaker plants” which are known to emit more GHG emissions.¹² Thus, it is far from clear that an all-electric building mandate will reduce GHG emissions.

The DEIR must disclose and acknowledge potential GHG impacts that could occur from shifting building energy use from natural gas to electric power given reasonably foreseeable conditions in which electrical energy consumption would produce more GHG emissions than natural gas building use.

- **Energy Impacts** – Under the CEQA Appendix G Checklist, a project may involve a significant environmental impact if it would result in “wasteful” or “inefficient” energy consumption. MM GHG-1 seeks to prohibit the installation of new natural gas infrastructure in new residential construction. But nowhere does the DEIR discuss how that may result in either (i) a failure to use already captured natural gas, or (ii) the expenditure of additional energy to transport or divert natural gas elsewhere. Studies have shown that low carbon natural gas may continue to be a viable resource in assisting the state with reaching its climate goals, and should continue to be utilized in typically hard to electrify thermal applications in residential, commercial and industrial uses.¹³ Specifically, Renewable Natural Gas (“RNG”), or biomethane, can be produced from biomass wastes (e.g. forest, agriculture, waste water and food and green waste) and then processed to inject into existing pipelines. Because its production removes more potent greenhouse gas from the air (methane) compared to what is produced when used (carbon dioxide), RNG production can be carbon negative from a lifecycle perspective. The County cannot determine whether full electrification policies will have unintended consequences of “wasteful” or “inefficient” energy use, without first analyzing these impacts in the DEIR.
- **Public Health and Safety** – In an era of increasingly dry and warm climates, and increased population in the wildfire urban interface along with build out of electrical infrastructure that could be an ignition source to serve population growth, California wildfires are occurring at increased frequencies and severities. Each of the three California investor-owned utilities adhere to wildfire mitigation plans (“WMP”) submitted to and approved by the California Public Utilities Commission (“CPUC”) —

¹² See, e.g., Mark Thurber, *Gas-fired generation in a high-renewables world*, Stanford University School of Earth, Energy & Environmental Sciences and Precourt Institute for Energy Natural Gas Initiative, NGI Research Brief (June 2018), https://ngi.stanford.edu/sites/g/files/sbiybj14406/f/NGI_Brief_2018-06_R3_Thurber.pdf.

¹³ Energy + Environmental Economics, *Decarbonizing Pipeline Gas to Help Meet California’s 2050 Greenhouse Gas Reduction Goal* (Jan. 2005), https://www.ethree.com/wp-content/uploads/2017/02/E3_Decarbonizing_Pipeline_01-27-2015.pdf.

which establish internal mechanisms and protocols for de-energization events, also known as Public Service Power Shutoffs (“PSPS”). PG&E’s most recent PSPS event (occurring on October 6, 2019) impacted over 728,980 customers in 35 counties across the Sacramento Valley, Sierra Foothills, North Bay, South Bay, East Bay, Central Coast, and parts of Southern California.¹⁴ Southern California Edison (“SCE”)— the investor-owned utility whose service territory includes the County — is likewise obligated to implement PSPS protocols in certain circumstances giving risk to wildfires and has done so on numerous occasions in 2019 and 2020. For example, on November 15-17, 2019, SCE instituted a PSPS event that was initially estimated to impact 31,975 customers on 48 circuits across four counties (including the County), although had a much smaller impact than originally considered.

It is evident that increasing the amount of power needed from the electrical grid, such as by reducing the use of natural gas and increasing the use of electricity, will only exacerbate these problems. Until that time, however, PSPS events will be the “new norm,” both in Northern and Southern California. In addition to the large-scale economic losses that customers suffer as a result of a PSPS event, public safety issues can also arise due to several factors. These include loss of power at critical medical facilities, added strain on first responder services (such as local police departments and EMTs), loss of school days, and disruption of critical city infrastructure during emergency responses (such as traffic lights). Although MM GHG-1 will contribute to an overloaded grid and exacerbate the economic and safety implications from future, likely PSPS events; the DEIR mentions none of these issues.

The County should consider how increased deployment of other technologies, such as microgrids and energy storage projects, can help achieve decarbonization and resiliency goals. A 2018 CEC report found that microgrid projects offer a number of “value propositions,” including renewable energy integration, grid resiliency, and carbon reductions.¹⁵ The CEC report concluded that microgrid projects align with the state’s Renewables Portfolio Standard and GHG reduction mandates.¹⁶ The County should analyze the effectiveness of these mitigation options instead of a ban on natural gas.

- ***Impacts on Biological Resources, Water Quality and Noise Stemming From Additional Renewable Generating Resources*** – As stated above, the County has not demonstrated how adopting and implementing MM GHG-1 will impact existing electricity demand. In other words, no evidence exists to support the notion that existing or future electricity load could meet energy demands if natural gas infrastructure is banned for all future

¹⁴ PG&E, “Public Safety Power Shutoff (PSPS) Report to the CPUC Oct. 9-12, 2019 De-Energization Event” (Oct. 25, 2019), at https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-10.09.19.pdf.

¹⁵ Asmus, Peter, Adam Forni, and Laura Vogel. Navigant Consulting, Inc. 2017. *Microgrid Analysis and Case Study Report*. California Energy Commission. Publication Number: CEC-500-2018-022, <https://www2.energy.ca.gov/2018publications/CEC-500-2018-022/CEC-500-2018-022.pdf>

¹⁶ *Id.* at ii.

residential construction. Rather, it is reasonably foreseeable that new renewable energy resources will be needed, in addition to those required under the California Renewables Portfolio Standard (“RPS”), to meet new building electrification policies. The CEC’s 2019 *California Energy Efficiency Action Plan Staff Report* acknowledges that statewide building electrification efforts “will seek to increase the share of renewable generation on the electricity grid....”¹⁷

The DEIR does not analyze how development of foreseeable additional renewable generating resources will impact the environment. Because it is likely that the County can determine with particularity the amount of MW or MWh that will be needed to fully implement MM GHG-1 in years to come, an accompanying analysis of generating resources and their potential environmental impacts must be provided. These renewable resource facilities are known to have their own environmental impacts associated with construction and operation, including but not limited to, impacts on federal and California sensitive species, water quality and quantity, nearby noise receptors, and project-related air quality impacts.

Because such commercial-scale facilities might be located outside the County does not insulate the County from its obligation to consider the indirect environmental impacts from MM GHG-1. Indeed, “the purpose of CEQA would be undermined if the appropriate governmental agencies went forward without an awareness of the effects a project will have on areas outside of the boundaries of the project area.”¹⁸ It is well-settled that “the project area does not define the relevant environment for purposes of CEQA when a project's environmental effects will be felt outside the project area.”¹⁹

- **Environmental Justice** – “Environmental justice” is defined as “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” Gov. Code § 65040.12(e). An Attorney General report defines “fairness” in this context to mean that “the benefits of a healthy environment should be available to everyone, and the burdens of pollution should not be focused on sensitive populations or on communities that already are experiencing its adverse effects.” “In addition, though CEQA’s main purpose is to evaluate whether a project may have a significant effect on the physical environment, “human beings are an integral part of the environment.”

The CEQA Guidelines state that “[e]conomic or social effects of a project may be used to determine the significance of physical changes caused by the project. For example, if the construction of a new freeway or rail line divides an existing community, the construction would be the physical change, but the social effect on the community would be the basis for determining that the effect would be significant.” Here, MM

¹⁷ California Energy Commission, *2019 Energy Efficiency Action Plan Draft Staff Report*, <https://efiling.energy.ca.gov/getdocument.aspx?tn=229496>.

¹⁸ *Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 369.

¹⁹ *County Sanitation Dist. No. 2 of Los Angeles County v. County of Kern* (2005) 127 Cal.App.4th 1544, 1582–1583.

GHG-1 would require the construction of new electric infrastructure, including within the County, to supply the electricity necessary to support a natural gas ban. This physical change to the environment will lead to cost increases for ratepayers, an economic impact which must be considered under CEQA.

Before the County can adopt MM GHG-1, the DEIR must consider the impact it will have on customer affordability and ratepayers. About 90 percent of residential energy consumers in Southern California use natural gas for space and water heating, and ratepayers prefer a choice in how they heat their homes and cook their food. Further, according to a 2018 study produced by Navigant Consulting on behalf of the California Building Industry Association, switching to all-electric appliances could cost single-family homeowners in Southern California “over \$7,200 and increase energy costs by up to \$388 per year.” Low-income customers would be the most burdened by the costs of building electrification.

Thus, as a result of adopting MM GHG-1, the County will have effectively established an unnecessary energy policy that will disproportionately impact its disadvantaged communities. Under CEQA, the County cannot gloss over this potential impact.

Given the substantial evidence that adopting and implementing MM GHG-1 will result in potential significant environmental impacts, the County is required to undertake proper CEQA review of such impacts, including both the direct and indirect environmental impacts stemming therefrom.

2. MM GHG-1 is Not “Feasible” under CEQA

Pursuant to CEQA Guidelines section 15126.4(a)(1), an EIR must “describe feasible measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy.” “Feasible” means “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”²⁰ Courts do not defer to an agency’s determination that mitigation measures will work when their efficacy is not apparent and there is no evidence in the record showing they will be effective.²¹ Here, there is no evidence that MM GHG-1 is feasible as a means to mitigate GHG-related impacts associated with the 2040 General Plan. In fact, evidence demonstrates that natural gas bans are environmentally, economically and technologically infeasible.

Intermittent Renewable Generation Inhibits Feasibility of a Natural Gas Ban

Since 2015, several studies have evaluated the results of multiple assessments of national and California decarbonization strategies and options.²² Other studies have considered the power

²⁰ CEQA Guidelines § 15364.

²¹ See, e.g., *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1168; *Communities for a Better Env’t v. City of Richmond* (2010) 184 Cal.App.4th 70, 95; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1116-17.

²² See, e.g., P. Loftus et al., A critical review of global decarbonization scenarios: what

system and costs associated with relying solely on intermittent renewable power for decarbonization, in contrast with approaches that also utilize fossil fuels with CCS or renewable natural gas (“RNG”).²³ These studies consistently conclude that renewable generation without a reliable baseload power source cannot achieve deep carbonization, will require installing massive amounts of additional generation and distribution facilities, and will be unaffordable.

- Relying on variable renewable sources such as wind, hydroelectric and solar to decarbonize will require the fabrication, installation and operation of approximately 3 to 10 times the level of solar and wind facilities that would be required if a reliable lower-carbon energy source was also utilized.²⁴ This overbuilding is required as intermittent power cannot achieve its nominal nameplate capacity—100 megawatts of solar or wind power will produce approximately 20-40 percent of capacity per year compared with approximately 90 percent capacity rates for natural gas. Thus, a much larger power system must be built to produce enough energy.
- As the percentage of intermittent renewable power serving a community increases, the amount of energy that is “curtailed” or wasted because it is not produced when needed can approach 40 percent of total generation.²⁵ Due to the timing mismatch between demand and the availability of solar and wind power, wind and solar would

do they tell us about feasibility?, WIRES Climate Change, January/February 2015, https://www.researchgate.net/publication/267875650_A_critical_review_of_global_decarbonization_scenarios_what_do_they_tell_us_about_feasibility A critical review of global decarbonization scenarios (analysis of 17 decarbonization studies); J. Jenkins et al., Deep decarbonization of the electric power sector: insights from recent literature, Energy Innovation Reform Project, March 2017, <https://www.innovationreform.org/wp-content/uploads/2018/02/EIRP-Deep-Decarb-Lit-Review-Jenkins-Thernstrom-March-2017.pdf> (analysis of 30 decarbonization studies); S. Brick, Renewables and decarbonization: studies of California, Wisconsin and Germany, The Electricity Journal, 2016, https://www.researchgate.net/publication/299380869_Renewables_and_decarbonization_Studies_of_California_Wisconsin_and_Germany/fulltext/57dc15a408ae4e6f18469f9d/299380869_Renewables_and_decarbonization_Studies_of_California_Wisconsin_and_Germany.pdf?origin=publication_detail (analysis of California, Wisconsin and German studies); and J. Jenkins et al, Getting to zero-carbon emissions in the electric power sector, Joule, 2018, <https://www.sciencedirect.com/science/article/pii/S2542435118305622> (analysis of 40 studies).

²³ See, e.g., N. Sepulveda et al, The role of firm low-carbon electricity resources in deep decarbonization of power generation, Joule, November 2018, <https://www.sciencedirect.com/science/article/pii/S2542435118303866?via%3Dihub> and B. Frew et al., Flexibility mechanisms and pathways to a highly renewable US electricity future, Energy, 2016, <https://web.stanford.edu/group/efmh/jacobson/Articles/Others/16-Frew-Energy.pdf>.

²⁴ See, e.g., P. Loftus et al., A critical review of global decarbonization scenarios: what do they tell us about feasibility?, WIRES Climate Change, January/February 2015, https://www.researchgate.net/publication/267875650_A_critical_review_of_global_decarbonization_scenarios_what_do_they_tell_us_about_feasibility A critical review of global decarbonization scenarios and J. Jenkins et al., Deep decarbonization of the electric power sector insights from recent literature, Energy Innovation Reform Project, March 2017, <https://www.innovationreform.org/wp-content/uploads/2018/02/EIRP-Deep-Decarb-Lit-Review-Jenkins-Thernstrom-March-2017.pdf>.

²⁵ J. Jenkins et al, Getting to zero-carbon emissions in the electric power sector, Joule, 2018, <https://www.sciencedirect.com/science/article/pii/S2542435118305622> based on

be unable to meet about 30 percent of California’s annual energy demand.²⁶ As a result, massive electrical power storage must be constructed, installed and operated to capture a community’s surplus intermittent power generation. In California alone, storing surplus generation would require batteries with an instantaneous capacity “larger than the generating capacity of the entire US electric grid.” Even assuming battery storage costs fall dramatically to \$80 per megawatt, California communities would be required to pay about \$2.9 trillion to secure the necessary power storage.²⁷

- To increase the reliability of intermittent renewable energy, significant new large-scale transmission will be required to “knit together diverse wind, sun and hydro resources” including as much as “a twenty-fold increase in US transmission capacity and interties for very high renewable energy scenarios, according to the National Renewable Energy Laboratory.”²⁸
- Due to the need for overbuilding, energy storage increases, and new transmission capacity, decarbonization using intermittent renewables without reliable low-carbon power sources would be unattainably expensive. The cost of electricity generation in California has been estimated to rise from about \$58 per megawatt hour with 60 percent renewable generation to \$389 using 80 percent renewable power, and an astonishing \$1,402 per megawatt hour at 100 percent renewable levels even assuming that the cost of wind, solar and storage falls substantially.²⁹ Other studies have estimated that California communities would pay more than \$1,600 per megawatt hour using 100 percent renewable power.³⁰

A Natural Gas Ban is Economically Infeasible for Customers

According to 2019 survey data published by the U.S. Energy Information Agency, the average household in California currently consumes about 7 megawatt hours of energy at a cost of approximately \$1,000 (\$0.14 per kilowatt hour). Published estimates indicate that California electrical generation costs could rise by 8 to 24 times current levels with 60 percent renewable power, higher utilization of renewables than at present. California households would also use more electrical power over time for transportation and other needs under a 100 percent renewable power scenario. Assuming that the average household electrical demand increases

²⁶ CATF 2019.

²⁷ CATF 2019.

²⁸ CATF 2019.

²⁹ CATF 2019.

³⁰ J. Temple, The \$2.5 trillion reason we can’t rely on batteries to clean up the grid, MIT Technology Review, July 27, 2018, <https://www.technologyreview.com/s/611683/the-25-trillion-reason-we-cant-rely-on-batteries-to-clean-up-the-grid/>.

to 10 megawatt hours per year,³¹ and that prices do not significantly increase until renewable use reaches 80 to 100 percent of total generation, the average California household electric bill would increase to about \$8,000 per year at 80 percent renewable use, and to about \$24,000 per year with 100 percent renewable use.

Annual cost increases of this magnitude could be expected to stimulate significant population relocation to lower cost communities. Physical relocation, including the use of larger, high emission vehicles, could have significant impacts on air quality, population and housing. High household energy costs would also have significant health and safety impacts, including higher mortality and illness rates for vulnerable populations due to the inability to heat or cool homes. Direct relocation GHG emissions, and additional emissions that could occur from the movement of large amounts of households to lower cost communities with higher average household emission rates could also generate significant cumulative climate change impacts.

Higher electrical power costs could also result in the relocation, or failure to open and operate businesses in the state and the relocation of these activities to lower cost, higher-emission communities. As discussed in a January 2020 report by the California Legislative Analyst's Office, California communities already have disproportionately higher energy costs than most of the U.S. compared with marginal generation expenses. Consequently, higher costs associated with 100 percent renewable energy could generate significant GHG impacts.

3. The DEIR Finds that GHG Impact 4.8-1 Will Remain Significant and Unavoidable, but Does So Without Considering Other Feasible and Effective GHG Mitigation

Under CEQA, a lead agency may not adopt a project unless it has eliminated or substantially lessened all significant effects on the environment, or determined that remaining significant effects are acceptable due to overriding considerations.³² Here, the County concluded that, with the implementation of all identified GHG mitigation measures, Impact 4.8-1 would remain significant and unavoidable.³³ However, the County cannot adopt this finding without implementation all feasible mitigation measures.³⁴ While it is true that "an EIR need not analyze 'every imaginable alternative or mitigation measure' ..., " it "must respond to specific suggestions for mitigating a significant environmental impact unless the suggested mitigation is facially infeasible."³⁵

³¹ EIA, *How much electricity does an American home use?* (Oct. 2, 2019), <https://www.eia.gov/tools/faqs/faq.php?id=97&t=3> (explaining that in 2018, the average annual electricity consumption for a U.S. residential utility customer was 10,972 kWh).

³² Pub. Res. Code. § 15092(b).

³³ DEIR at 4.8-49.

³⁴ Guidelines §§ 15043(a), 15092(b).

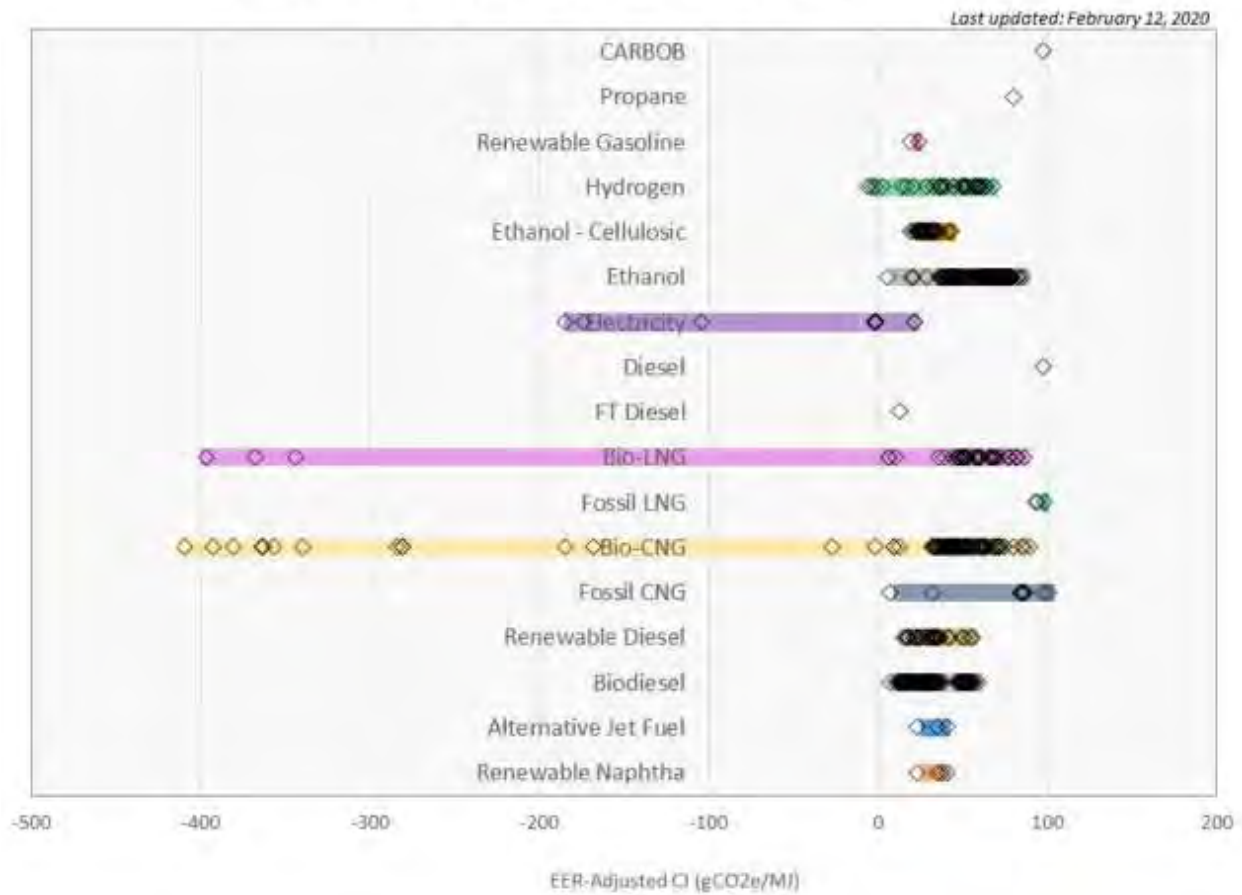
³⁵ *Los Angeles Unified Sch. Dist. v. City of Los Angeles* (1997) 58 Cal. App. 4th 1019, 1029; citing *San Francisco Ecology Center v. City and County of San Francisco* (1975) 48 Cal.App.3d 584, 596 (EIR did not respond to School District's suggestion that air conditioning and filtering might prove feasible means of reducing air quality impacts under proposed plan).

SoCalGas urges the County to consider other GHG emission-reduction strategies that are scalable and easier to implement, more resilient and more affordable. Specifically, the use of renewable gases such as hydrogen and renewable natural gas (RNG), are low carbon to negative fuels that can dramatically reduce county greenhouse gas emissions and provide optionality and flexibility for the energy system.

As stated in our prior comment letter for the General Plan Update (attached), RNG, or biomethane, can be produced from a variety of waste resources (e.g. agricultural waste, forest biomass, waste water, and landfills) and then processed to meet pipeline specifications. Further, green hydrogen can be produced from excess solar and wind power generated when demand is low. The hydrogen can then be stored for later use in hydrogen fueling stations, be used for electric generation in fuel cells, and/or blended into the gas pipeline system to decarbonize gas supply which benefits all sectors. This technology, called Power-to-Gas, has been demonstrated in numerous pilot projects, including UC Irvine.³⁶

³⁶ UCI Samueli School of Engineering. UCI and SoCalGas Partner to Design “Advanced Energy Community.” December 2017. Available at: <https://engineering.uci.edu/news/2017/12/uci-and-socalgas-partner-design-advanced-energy-community>

Carbon Intensity Values of Current Certified Pathways (2020)



37

Because most production of renewable natural gas removes methane from the air and converts it to carbon dioxide when used, RNG production can be significantly carbon negative from a lifecycle perspective. Renewable gases can also achieve co-benefits by helping the energy system be more flexible and work across sectors. For example, conversion of dead trees and forest waste to renewable gases can dramatically reduce wildfire risks. The Power to Gas concept that can convert excess renewable electricity to hydrogen that can store energy in the for months at a time instead of hours as in the case with batteries enables extension of the renewable energy for long durations to meet peak demands. Finally, renewable gases can support decarbonizing difficult sectors such as the agriculture and other industries which form the economic engine of California and the associated jobs. As the County is aware, SoCalGas is working towards the goal of replacing 5% of our natural gas supply with RNG by 2022, and 20% by 2030.

³⁷ California Air Resources Board. LCFS Certified Pathway Carbon Intensities. February 2020. Available at: <https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities>

The CPUC is also evaluating the levels of hydrogen that can be blended in to the natural gas system as we speak. Furthermore, just last month, Lawrence Livermore National Labs issued a study of how California can get to carbon neutrality by leveraging the gas pipelines and their rights-of-way to convey hydrogen and carbon dioxide.³⁸ In fact, the most cost-effective carbon negative solution is to convert biomass waste to hydrogen and sequestering the carbon via pipelines using the rights-of-ways of the natural gas system. In addition, studies show that replacing roughly 16% of SoCalGas throughput with RNG achieves the same emissions reductions as electrifying the entire building sector by 2030.³⁹

Inclusion of RNG as a mitigation strategy also aligns with policies already included in the Draft General Plan. In particular, policies PFS-5.4, PFS-5.5, PFS-5.6, and COS-8.1 all support reuse of waste resources for energy generation as well as replacement of fossil fuels with renewable energy resources, including bioenergy. Accordingly, the use of renewable gases as a mitigation measure seems a natural complement to these policies, whereas a ban on gas infrastructure seems counterproductive. Therefore, we encourage the County to replace Mitigation Measure GHG-1: Prohibit Natural Gas in New Residential Construction, with an alternative mitigation measure that is performance-based, technology neutral and allows for flexibility in use of renewable fuels to help achieve emissions reductions.

We appreciate the opportunity to submit comments on the DEIR and look forward to working with the County as a valuable energy partner to achieve their environmental goals. If you have any questions, please do not hesitate to reach out via telephone or email.

Sincerely,

Deanna Haines
Director Policy, Strategy and Environment

³⁸ Lawrence Livermore National Laboratory. Getting to Neutral. January 2020. Available at: https://www-gs.llnl.gov/content/assets/docs/energy/Getting_to_Neutral.pdf

³⁹ Navigant Consulting, Gas Strategies for a Low-Carbon California Future (April 2018).

Simmons, Carrie

From: Sara L. Breckenridge <breckenridge@smwlaw.com>
Sent: Thursday, February 27, 2020 4:02 PM
To: Downing, Clay
Cc: Curtis, Susan; Simmons, Carrie; Carol Holly; Carmen J. Borg; Kevin P. Bundy
Subject: RE: County of Ventura 2040 General Plan and Draft Environmental Impact Report

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That is the correct. The second document (Comment Letter) is also included as the first 38 pages of the third document (Comments and Exhibits). Thank you.

From: Downing, Clay <clay.downing@ventura.org>
Sent: Thursday, February 27, 2020 3:43 PM
To: Sara L. Breckenridge <breckenridge@smwlaw.com>
Cc: Curtis, Susan <Susan.Curtis@ventura.org>; Simmons, Carrie <Carrie.Simmons@ventura.org>; Carol Holly <Carol.holly2@gmail.com>; Carmen J. Borg <Borg@smwlaw.com>; Kevin P. Bundy <Bundy@smwlaw.com>
Subject: RE: County of Ventura 2040 General Plan and Draft Environmental Impact Report

Good afternoon Ms. Breckenridge,

Thank you for submitting this public comment. We have downloaded the following materials successfully:

- Email submission (2 pages)
- Comment Letter (38 pages)
- Comments and Exhibits (782 pages)

If these materials do not reflect all of the materials in your submission, please notify us immediately so that we can ensure we have all materials associated with your submission. Best,

Clay Downing, MPPA | Associate Planner
Permit Administration and General Plan Update Sections
Clay.Downing@ventura.org



Ventura County Resource Management Agency | Planning Division
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Office 805.650.4047

Additional Planning Division information is available at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit VC Citizen Access

Pursuant to the California Public Records Act, emails retained by the County of Ventura may constitute public records subject to public disclosure.

From: Curtis, Susan <Susan.Curtis@ventura.org>
Sent: Thursday, February 27, 2020 3:16 PM
To: Downing, Clay <clay.downing@ventura.org>
Cc: Simmons, Carrie <Carrie.Simmons@ventura.org>
Subject: FW: County of Ventura 2040 General Plan and Draft Environmental Impact Report

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: General Plan Update <GeneralPlanUpdate@ventura.org>
Sent: Thursday, February 27, 2020 3:00 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: FW: County of Ventura 2040 General Plan and Draft Environmental Impact Report

From: Sara L. Breckenridge <breckenridge@smwlaw.com>
Sent: Thursday, February 27, 2020 1:50 PM
To: General Plan Update <GeneralPlanUpdate@ventura.org>
Cc: Kevin P. Bundy <Bundy@smwlaw.com>; Carmen J. Borg <Borg@smwlaw.com>; Carol Holly <Carol.holly2@gmail.com>
Subject: County of Ventura 2040 General Plan and Draft Environmental Impact Report

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Ms. Curtis,

Please find attached a letter from Kevin Bundy and Carmen Borg, on behalf of Climate First: Replacing Oil & Gas, regarding the County of Ventura 2040 General Plan Update and Draft Environmental Impact Report. Due to large file size, the exhibits are attached as a Dropbox download link. Please confirm your receipt of this message, and that you were able to download the exhibits. Thank you.

<https://www.dropbox.com/s/itvm16fo7c4m8fm/CFROG%202040%20GPU%20DEIR%20Comments%20and%20Exhibits%202-27-2020.pdf?dl=0>

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From: Sara L. Breckenridge <breckenridge@smwlaw.com>
Sent: Thursday, February 27, 2020 1:50 PM
To: General Plan Update
Cc: Kevin P. Bundy; Carmen J. Borg; Carol Holly
Subject: County of Ventura 2040 General Plan and Draft Environmental Impact Report
Attachments: CFROG 2040 GPU DEIR Comment Letter 2-27-2020.pdf

Follow Up Flag: Follow up
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<https://www.dropbox.com/s/itvm16fo7c4m8fm/CFROG%202040%20GPU%20DEIR%20Comments%20and%20Exhibits%202-27-2020.pdf?dl=0>

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February 27, 2020

Via E-Mail

Ms. Susan Curtis
Manager, General Plan Update Section
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Agency, Planning Division
800 S. Victoria Ave., L #1740
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E-Mail: GeneralPlanUpdate@ventura.org

Re: County of Ventura 2040 General Plan and Draft Environmental
Impact Report – State Clearinghouse No: 2019011026

Dear Ms. Curtis:

This firm represents Climate First: Replacing Oil & Gas (“CFROG”) on matters related to the 2040 General Plan (“the Draft Plan”) and its draft environmental impact report (“DEIR”). As detailed below, the Draft Plan fails to take meaningful, feasible steps to confront climate change. The DEIR also falls far short of the requirements of the California Environmental Quality Act (“CEQA”) (Public Resources Code section 21000 *et seq.*) and CEQA Guidelines (California Code of Regulations, title 14 section 15000 *et seq.*).

As you know, CFROG’s primary concerns include the effect of oil and gas development on Ventura County’s climate, natural resources, and quality of life. Proximity to oil and gas exploration, extraction, processing, and transportation exposes countless County residents to ongoing harm, exacting a tremendous toll on public health and safety. Moreover, the County is already experiencing severe impacts from climate change, and those impacts are likely to intensify in coming years. As CFROG has pointed out in prior letters, overwhelming scientific evidence shows humanity has only a few years remaining in which to dramatically draw down fossil fuel emissions if we are to preserve a decent chance of avoiding even more severe and lasting disruptions.

Unfortunately, like its predecessor, the Draft Plan does little to promote the policy transitions required to meet this challenge. If anything, the Draft Plan's approach to oil and gas policy largely continues a business-as-usual approach to petroleum extraction. This is so despite the Draft Plan's recognition that the County must reduce greenhouse gas emissions by roughly 60 percent over the next 20 years in order to keep up with reductions demanded by state climate policy.

As explained in CFROG's prior comments,¹ although CFROG recognizes the history and economic importance of the County's oil industry, the time for a transition to cleaner alternative sources of energy and economic sustenance is now. With that principle in mind, CFROG previously submitted recommendations of specific policies and programs to be adopted as part of the General Plan, or if they are not adopted, that they be considered as mitigation measures and/or alternatives in the DEIR for the General Plan. We are disappointed that many of CFROG's recommended policies and programs have neither been included in the Plan nor discussed in the DEIR.

The County's General Plan update process is a critically important planning exercise because so much is at stake. The climate change crisis alone mandates a dramatic refocus away from the business-as-usual approach of facilitating oil and gas extraction in the County. A recent analysis of more than a century of temperature data indicates that temperatures from Santa Barbara southward are warming at double the rate of the continental United States. Washington Post, "California climate change: Fires, floods and a fight over free parking," December 5, 2019, attached as Exhibit 1. Ventura County has suffered an average temperature increase of 4.7 degrees Fahrenheit since preindustrial times and ranks as the fastest-warming county in the lower 48 states. *Id.*

While the Draft Plan contains some laudable policies, it nonetheless fails to demonstrate a serious commitment to tackling this ecological and social crisis. Many of

¹ This firm previously submitted comments on the Preliminary Draft General Plan Update ("Preliminary Draft") dated June 5, 2019. In that letter we described many substantive flaws in the Preliminary Draft, many of which the County disregarded in preparing the Draft Plan. We also recommended numerous new and amended policies and asked that they be considered as mitigation measures and/or alternatives in the DEIR; most of these recommendations, however, are not addressed at all in the DEIR. Consequently, most of the comments in the June 5 letter remain applicable to the current Draft Plan and DEIR. Our June 5, 2019 letter and accompanying exhibits and references are therefore incorporated herein by reference.

the Draft Plan's policies are merely advisory and lack the enforceable detail necessary to achieve real greenhouse gas reductions. The DEIR, for its part, proposes to water down many of the Draft Plan's provisions even further.

The Draft Plan and DEIR are out of touch with both climate science and state policy. The State of California has begun active planning for a managed transition away from fossil fuels. The 2019 Budget Act allocated significant funding for studies outlining a long-term reduction in both demand for and supply of fossil fuels, in service of the state's goal of achieving carbon neutrality by 2045. *See* Stats.2019, ch. 23, Item 0555-001-3228 (Assembly Bill No. 74), attached as Exhibit 2. The state has adopted a scope of work for each study and the planning effort is underway. *See* Carbon Neutrality Studies Scope of Work, Studies 1 and 2, attached as Exhibits 3, 4. The Draft Plan's commitment to expanded oil and gas operations in Ventura County is contrary to these statewide efforts and profoundly counterproductive.

The 2040 General Plan update offers a critical opportunity to support statewide and global efforts by shifting away from dependence on oil and gas production and expanding renewable energy production and consumption. Such a shift would have tremendous benefits, including reduced air pollution and greenhouse gas ("GHG") emissions, lower energy consumption, fewer impacts to public health and safety, and greater water quality protection. In other words, a shift in direction would provide either an alternative or a series of mitigation measures that could further reduce or avoid many of the Draft Plan's significant environmental impacts.

Unfortunately, the Draft Plan and DEIR fail to provide for any such shift, and instead assume continued expansion of oil and gas extraction, even as statewide production continues to decline and the rest of California begins to plan for a post-carbon future. Indeed, the DEIR admits the Draft Plan will not achieve the County's fair share of reductions needed to meet either short-term or longer-term state climate goals. The Draft Plan's business-as-usual approach will create long term environmental damage, affecting residents and future generations throughout the region.

Finally, as detailed below, the DEIR fails to meet CEQA's requirements. For example, the DEIR fundamentally fails to identify or analyze credible, feasible mitigation measures or alternatives that could reduce or avoid the Draft Plan's significant environmental impacts. CEQA requires enforceable, concrete commitments to mitigation and consideration of a range of potentially feasible alternative approaches that could avoid significant impacts. The DEIR, in contrast, primarily offers vague, voluntary, and unenforceable policies, particularly with respect to anticipated greenhouse gas emissions.

As a result, the DEIR fails to describe measures that could avoid or substantially lessen the proposed Plan's numerous significant impacts.

I. The County's Climate Action Plan Is Ineffective At Reducing GHG Emissions.

As acknowledged in the DEIR for the Draft Plan, the County has a considerable number of oil and gas operations in the unincorporated areas. Draft Plan at 6-12. These facilities contribute to climate disruption. Further expanding local oil and gas development will add even more carbon to the atmosphere, undercut California's efforts to reduce emissions, and further limit our ability to avoid the worst effects of climate change. The General Plan Update—and, in particular, the provisions of the Plan comprising the County's Greenhouse Gas Strategy or Climate Action Plan ("CAP")—offers an important opportunity to reduce emissions from oil and gas development.

Unfortunately, the CAP as described in Appendix B to the Draft Plan largely passes up this opportunity. As explained in more detail below, the CAP presents incomplete and inaccurate data regarding anticipated GHG emissions under the proposed Plan. In addition, the CAP lacks specific, enforceable measures necessary to achieve the established targets and goals for emission reductions. As a result, the CAP is ineffective in reducing anticipated GHG emissions, and the DEIR's conclusions regarding the Draft Plan's climate impacts are without support.

A. The Baseline Inventory of GHG Emissions Is Incomplete and Inaccurate.

As we pointed out in our prior letter on the Preliminary Draft, the baseline inventory of County GHG emissions is the foundation of the CAP. Without a complete and accurate inventory, the County cannot accurately project future business-as-usual ("BAU") emissions or measure the effectiveness of reduction measures in meeting identified targets and goals. Effective policies cannot be built on a flawed inventory. Unfortunately, the CAP inventory remains incomplete, internally inconsistent, and inaccurate.

According to the CAP, 2015 stationary source emissions totaled 275,096 MTCO_{2e}. Draft Plan, Appendix B at B-7 (Table B-2), B-8. This estimate purportedly was derived "by scaling the statewide emissions reported for oil and gas production to the local level using the proportion of oil and gas production in the unincorporated area relative to the statewide total." *Id.* at B-8.

The estimate in the CAP is not clearly supported by data in the DEIR. Appendix D to the DEIR appears to take two different approaches to estimation of stationary source emissions. The first approach (in a spreadsheet entitled “Estimating Ventura County Stationary Source Emissions from Oil and Gas”) estimates a total of 284,693 MTCO_{2e}. DEIR, Appendix D at 43. The second approach (apparently using two spreadsheets, one entitled “Statewide Stationary Source Emissions from Oil and Gas” and the second entitled “State Report on Well County and Production of Oil, Gas, and Water by County – 2015”) arrives at the “scaled” emissions estimate of 275,096 MTCO_{2e} discussed in the CAP. DEIR, Appendix D at 44-45. Neither the CAP nor the DEIR appears to explain the discrepancy between the two estimates.

Further inconsistencies in the inventory are similarly unexplained. For example, estimates under the first approach described above show zero emissions from natural gas “fuel combustion” in the County. DEIR, Appendix D at 43. Statewide figures supporting the second approach, however, show that natural gas combustion is by far the single greatest source of CO₂ emissions from the oil and gas sector (13,750,201 MTCO_{2e}, or 69.4% of statewide total CO_{2e} emissions). *Id.* at 44. Neither the CAP nor the DEIR appears to contain any evidence that unlike the rest of the state, not a single oil and gas operation in Ventura County consumes natural gas. As we pointed out in our letter on the Preliminary Draft Plan, cyclic steaming and steam flooding operations—which often burn natural gas to generate steam—are currently occurring in the County, including in the Oxnard oilfield. DOGGR 2017 (annual report) at 22 (attached as Exhibit 5) to comments on Preliminary Draft Plan). In fact, the Ventura County Air Pollution Control District recently issued a permit to California Resources Production Corporation authorizing operation of steam generators “fired on PUC Natural gas, with PUC natural gas mixed with produced gas as secondary fuel.” VCAPCD, Part 70 Permit No. 00012, Section No. 2 at 1 (Table No.2) (May 14, 2019), attached as Exhibit 6; *see also* VCAPCD Rule 74.15.B.1(3)(a) (allowing steam generators to use “alternate fuel” only “due to the curtailment of natural gas service to the individual unit by the natural gas supplier” and only during “the period of natural gas curtailment”). Steam generators in Ventura County clearly use natural gas in the production of oil. The inventory’s omission of natural gas combustion emissions is thus inaccurate and unsupported.

The “scaled” estimate of emissions from County oil and gas operations also appears unreasonably low. DEIR Appendix D concludes that Ventura County produces 4.2% of the state’s oil and 5.1% of the state’s associated gas. DEIR, Appendix D at 45. Yet DEIR Appendix D also concludes that Ventura County contributes only about 1.4% of the statewide GHG emissions from oil and gas (275,096 MTCO_{2e} out of the statewide total of 19,803,975 MTCO_{2e}). Again, neither the CAP nor the DEIR explains why

“scaled” Ventura County emissions are so low compared to the volumes of oil and gas produced.

This stark discrepancy further underscores a point we made in our prior comments: the Preliminary Draft Plan failed to explain or provide evidentiary support for the “scaled” estimate, i.e., for calculating Ventura County emissions as a percentage of statewide emissions from the oil and gas sector rather than based on information specific to exploration and production in Ventura County. Neither the CAP nor the DEIR supplies the missing explanation. Local oil and gas operations may or may not be consistent with statewide averages in terms of the energy (and associated emissions) required for extraction. However, additional justification and explanation of this methodological choice, based on information specific to Ventura County, is necessary—particularly in light of the DEIR’s apparent conclusion that County oil and gas emissions are significantly lower than anywhere else in the state, even on a “scaled” basis.

The CAP inventory also continues to omit other sources of GHG emissions from oil and gas production. For example, the inventory does not include emissions from the transport of oil and gas production, particularly freight rail and ocean freight emissions. Draft Plan, Appendix B at B-8. Nor does the inventory include any “downstream” emissions from refining or combustion of County-produced oil and gas. As explained in our prior letter, these emissions should have been included because the County controls activities related to exploration and production of oil and gas. Without these activities, emissions from transportation, refining, and combustion of oil and gas produced in the County would not occur. Where, as here, “downstream” emissions are foreseeable and capable of estimation, they should be disclosed. *Cf. Sierra Club v. Federal Energy Regulatory Com.* (D.C. Cir. 2017) 867 F.3d1357; *Mid States Coalition for Progress v. Surface Transportation Bd.* (8th Cir. 2003) 345 F.3d 520. Nor can the County avoid responsibility for disclosing and analyzing rail and ocean freight emissions simply because it may lack authority to prevent or mitigate the effects of these activities directly. See *Association of Irrigated Residents v. Kern County Bd. of Supervisors* (2017) 17 Cal.App.5th 708, 750-52 (federal preemption of railroad regulation did not extend to responsibility for disclosure and analysis of environmental effects of railroad operations under CEQA).

It is also unclear whether the emissions inventory includes aviation emissions. The DEIR includes emission factors for aviation gas and jet fuel. DEIR, Appendix D at 47 and 49. However, the inventory does not appear to include any emissions from aircraft. *Id.* at 27 and 28. Moreover, although the inventory appears to include some emissions from vessels, harborcraft, and cargo handling equipment (*id.* at 27), it is not clear that the inventory includes all emissions related to operations at the Port of Hueneme.

Finally, recent data collected by the National Aeronautics and Space Administration (“NASA”), indicates that emissions from a handful of sites (or “super emitters”) account for the vast majority of California’s methane emissions. *See*, Bloomberg News article, “NASA Flew Gas Detectors Above California, Found ‘Super Emitters’”, November 7, 2019, attached as Exhibit 7; <https://climate.nasa.gov/news/2930/a-third-of-california-methane-traced-to-a-few-super-emitters/> news article, attached as Exhibit 8; and <https://methane.jpl.nasa.gov/>. Of the “super emitters” identified around the State, oil and gas operations accounted for 26 percent of all source emissions.

Several of these “super emitters” are located in Ventura County. *See* Ventura County Methane Plume Data, attached as Exhibit 9. They include, but are not limited to, the Ventura Oil Field, Rincon Oil Field, Bardsdale Oil Field, and South Mountain Oil Field, which were all mapped as emitting methane plumes. Methane is a greenhouse gas that is at least 85 times more potent than carbon dioxide at trapping heat and contributing to global warming over the 20-year period covered by the General Plan.² Therefore, addressing these emissions is critical for the County to meet emission reduction targets required under State law.

Despite this available data, the County’s Draft Plan and DEIR failed to disclose these emissions, analyze their impacts, or identify feasible measures to ensure emission reductions over the life of the Plan. The result is a CAP that presents flawed baseline data of GHG emissions that undermines the entire planning process. Without an accurate baseline inventory, the DEIR’s projected future emissions from the oil and gas sector (see

² Current scientific evidence concerning the global warming potential of methane over different time scales is discussed in detail in CFROG’s comments on the Preliminary Draft Plan. *See* June 5, 2019 Comments at 16-18 and cited references. Specifically, according to the Intergovernmental Panel on Climate Change’s most recent Assessment Report, methane is 85-87 times more potent than carbon dioxide over a 20-year time period, accounting for climate-carbon feedbacks and additional warming from methane oxidation. Myhre, G., et al., 2013: Anthropogenic and Natural Radiative Forcing at 714 (Table 8.7). In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Available at https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf. An excerpt from the IPCC report is attached as Exhibit 10.

DEIR, Appendix D at 45) have no evidentiary basis. Inasmuch as the County permits oil and gas operations in unincorporated lands in the County, the County has an obligation to consider these emissions and take concrete steps to limit them in the future. The failure to do so renders the CAP fatally flawed. A revised CAP must correct this flaw and include a comprehensive inventory of all emissions, including all emissions from oil and gas operations.

B. Emission Forecasts are Inadequately Supported.

Projections of “business as usual” emissions from the oil and gas sector in the CAP and DEIR lack adequate justification and support. The DEIR assumes oil and gas production will increase by more than one million barrels per year between 2015 and 2040. DEIR Appendix D at 45. Stationary sources are projected not only to remain a significant source of emissions in the County, but also to continue increasing, through 2050. Draft Plan at B-10 (Table B-4).

Appendix B appears to use “County-specific demographic” projections—presumably population growth—as the basis for its future emissions projections, although the precise methodology used is not explained. *See* Draft Plan at B-10. The DEIR similarly bases its projections on “growth rates for population, employment and housing” forecast by the Southern California Association of Governments.” DEIR at 4.8-5. Yet neither document explains why stationary source emissions from in-County oil and gas development would be expected to increase due to County population growth. As we noted in our prior comments, the document offers no basis for assuming that local oil and gas development is driven by local population growth in the same manner as transportation or residential or commercial development. Put another way, neither the Draft Plan nor the DEIR offer evidence that local *demand* for oil and gas drives local *production* of oil and gas (or, put another way, that local oil and gas production tracks generic projections of County growth in a linear fashion).

Nor do the Draft Plan or DEIR provide any evidence to support the assumption that County oil and gas production will continue to increase through 2050. *See* DEIR, Appendix D at 45. California production has been declining for many years. *See, e.g.*, U.S. Energy Information Administration, California Field Production of Crude Oil 1980-2018 (attached as Exhibit 3 to June 5, 2019 letter); DOGGR 2017 (attached as Exhibit 2 to June 5, 2019 letter) at 5. The DEIR’s assumptions thus appear contrary to the evidence. To the extent some other assumptions lie behind the projected increase in emissions—for example, that production might increase as a result of new or expanded enhanced oil recovery technologies—Appendix B fails to explain what they are.

In fact, Appendix B's projected increase in production is contrary to state policy and trends. Statewide efforts to decarbonize the electrical grid, electrify the transportation sector, and increase building energy efficiency should reduce local demand for oil and gas significantly over the next several decades. As discussed above, the state is actively planning to transition away from fossil fuels—including reductions in both demand and supply—by 2045. *See* Exhibits 2, 3, 4 [Budget Act; Carbon Neutrality Studies Scope of Work 1 and 2]. Unfortunately, the discussion of statewide legislation and policy that could reduce fossil fuel demand and emissions in coming years (Draft Plan at B-11) is incomplete; for example, it does not include Zero Net Energy improvements to the Building Code or incentives for electric vehicles. Nor does Appendix B mention the state's Short-Lived Climate Pollutant strategy. In short, Appendix B's forecast increase in stationary source emissions lacks adequate support and analysis.

Finally, planning for continued expansion of Ventura County oil and gas production flies in the face of both overwhelming climate science and clear state policy. Nowhere do the Draft Plan or the DEIR adequately disclose or analyze the consequences of this approach or its blatant inconsistency with statewide GHG reduction plans and programs. *See* CEQA Guidelines, § 15125(d).

C. The Draft Plan Presents Vague Measures That Cannot Produce the Necessary Emission Reductions and Improperly Defers Development of Implementation Programs.

Appendix B's most fundamental weakness may be its failure to identify a set of GHG reduction measures that comes anywhere close to achieving the County's desired targets and goals. The Draft Plan offers only a vague assurance that the "County shall reduce GHG emissions" through "combination of measures included in the GHG Strategy" (Draft Plan at B-15; Policy COS-10.4), but never addresses how that "combination of measures" will reduce emissions by the amounts necessary.

Indeed, many of the "CAP" measures collected in Appendix B from various other elements of the General Plan represent only soft, unquantifiable commitments to "encourage" or "promote" various actions (see section II.B below for specific examples). Although hortatory, qualitative measures of this sort may be appropriate to supplement more concrete requirements, identification of specific, enforceable measures and quantification of resulting emissions reductions are required to demonstrate consistency with quantitative targets and goals. Enforceable, concrete commitments to mitigation also are required under CEQA. Neither the Draft Plan nor the DEIR contains adequate measures of this kind.

D. The CAP and DEIR Fail to Provide Adequate Mitigation to Reduce the Plan's Emissions.

The DEIR acknowledges that GHG emissions under the proposed Plan would be significant, even with proposed mitigation measures. DEIR at 4.8-49. The DEIR also acknowledges that the Draft Plan would result in future GHG emissions that exceed the State's 2030 and post-2030 targets for emission reduction. DEIR at 4.8-52. However, the DEIR fails to identify feasible mitigation measures that will lessen these significant impacts.

Under CEQA, mitigation measures proposed in an EIR must be "fully enforceable" through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code § 21081.6(b); CEQA Guidelines §15126.4(a)(2). As the DEIR itself admits, a substantial number of the programs and policies proposed in the Plan will not result in quantifiable emissions reductions and thus cannot be counted on to mitigate the Plan's significant GHG impacts. DEIR at 4.8-50. As discussed in more detail in section III.B of this letter below, the programs and policies in the General Plan are unlikely to reduce the Project's impacts because of their voluntary, flexible, and unenforceable nature. Here, the proposed policies are vague and include directory terms like "as appropriate," "where feasible" and "support," rather than mandatory terms like "require," "reduce," and "deny."

Moreover, the Draft Plan and DEIR fail to adequately address methane emissions from the oil and gas sector. The Plan includes programs to address methane emissions from the waste (e.g., PFS-L), water (e.g., Program WR-G) and agriculture (e.g., Programs AG-I, AG-J, and AG-K) sectors. DEIR at 4.8-44. The Plan, however, omits policies, programs, or mitigation measures to reduce methane emissions from oil and gas operations. This omission should be corrected through additional mitigation measures that will effectively limit expansion of oil and gas operations in the County and actively transition the County's economy away from fossil fuels. See, sections III B and C of this letter below for specific policy recommendations related to GHG emissions reductions.

Finally, the DEIR improperly attempts to avoid responsibility for proposing mitigation by claiming the County has no authority "to enforce measures that may potentially infringe upon private property rights, reduce the economic competitiveness of local businesses, or inhibit the ability for residents to travel between residences, jobs, and amenities." DEIR at 4.8-49; *see also id.* at 4.8-39, 4.8-52. While the County obviously must operate within constitutional limits, the DEIR's attempt to disclaim any authority to control activities within its jurisdiction is overbroad to the point of abdication. For more than a century, courts have recognized that local governments may exercise their police

powers despite resulting impingements upon property rights and economic competitiveness. *See, e.g., Hadacheck v. Sebastian* (1915) 239 U.S. 394, 409-10. Moreover, to the extent the DEIR is claiming that any additional mitigation (particularly with respect to existing land uses) would be legally infeasible, its conclusory statements regarding lack of authority fall far short of CEQA's requirements. *See, e.g., City of San Diego v. Board of Trustees of California State University* (2015) 61 Cal.4th 945, 956 ("An EIR that incorrectly disclaims the power and duty to mitigate identified environmental effects based on erroneous legal assumptions is not sufficient as an informative document.") (internal quotation omitted). "In mitigating the effects of its projects, a public agency has access to all of its discretionary powers . . . includ[ing] such actions as adopting changes to proposed projects, imposing conditions on their approval, adopting plans or ordinances to control a broad class of projects, and choosing alternative projects." *Id.* at 959. The DEIR's attempt to abdicate the County's regulatory and police power authority has no legal basis and cannot support any finding of infeasibility.

The DEIR also appears to conclude that the County may weigh the Draft Plan's asserted economic and other benefits against its environmental consequences without first proposing and adopting all feasible measures to mitigate or avoid significant effects. *See* DEIR at 4.8-49, 4.8-52. This conclusion rests on a misinterpretation of CEQA. An agency must properly find that mitigation and alternatives are infeasible *before* engaging in any balancing of benefits and harms. *See* Pub. Resources Code § 21081(a)(3), (b); CEQA Guidelines § 15092(b)(2). The County may not disclaim its responsibility to develop feasible mitigation by prematurely claiming that the project's benefits outweigh its environmental drawbacks.

E. The Draft Plan's "GHG Strategy" Does Not Satisfy the Requirements for CEQA Streamlining.

As pointed out in our prior comments, the Draft Plan (and the portions of the Draft Plan comprising the "GHG Strategy" or CAP) fails to provide any basis for streamlining analysis of the cumulative climate impacts of subsequent projects based on consistency with the General Plan or CAP. *See* CEQA Guidelines § 15183.5. The DEIR correctly proposes to eliminate one express reference to streamlining based on the CAP. The Draft Plan and the County's Initial Study Assessment Guidelines, however, should be revised to make explicit that neither the General Plan nor the CAP contains sufficient specific, enforceable GHG reduction measures to support streamlined CEQA review of future projects.

Proposed Implementation Program COS-EE (Draft Plan at B-20) would allow streamlined GHG emissions analysis for projects demonstrating that: the project is

consistent with current general plan and zoning designations; that the project incorporates all applicable GHG reduction measures in Appendix B to the General Plan; and the project “clearly demonstrates the method, timing, and process for which the project will comply with applicable GHG reduction measures and/or conditions of approval. Draft Plan, Appendix B at B-20 and B-2. As drafted, however, the CAP falls far short of the requirements of CEQA Guidelines section 15183.5. In order to support a determination that CAP consistency eliminates significant climate effects, a CAP must (among other things) clearly demonstrate that its prescribed measures will actually achieve the reductions necessary to attain the CAP’s stated goals. CEQA Guidelines § 15183.5(b)(1)(D). As discussed above, the CAP provides no basis for such a conclusion.

The DEIR proposes a mitigation measure that deletes Implementation Program COS-EE, purportedly on the ground that project-specific review may ensure greater emissions reductions over time than compliance with generic measures in the General Plan and CAP. *See* DEIR at 2-34 and 2-35, MM GHG-3. We agree that Implementation Program COS-EE should be removed from the Draft Plan, and that rigorous review of the climate impacts of future discretionary projects should be required. Until such time as the General Plan identifies policies and programs that lead to quantifiable emission reductions adequate to achieve the Plan’s stated goals, streamlining environmental review would be unlawful. For this reason, CFROG requests not only that Implementation Program COS-EE be deleted, but also that the Draft Plan and CAP be revised (1) to remove other references to streamlined analysis of future projects (*see, e.g.*, Draft Plan at 12-4, B-3, B-5, B-24 to B-24, B-57), and (2) to expressly state that the General Plan and GHG Strategy are neither sufficient nor intended to be used to support streamlined environmental analysis under CEQA Guidelines section 15183.5. The DEIR similarly must be revised to remove references to CEQA streamlining based on the General Plan or CAP. *See, e.g.*, DEIR at 4.8-4.

II. The Draft Plan Must Ensure Lawful Application of Air Quality Thresholds.

As discussed in our June 5, 2019 comments, CFROG strongly supports retaining existing air quality thresholds in the Ojai Valley Area Plan. CFROG is pleased to see that these provisions have been carried forward into the Draft Plan as Goal OV-55 and Policy OV-55.1. Draft Plan at OV-30. However, as CFROG’s prior comments pointed out, the rest of the County is still subject to a much higher air quality threshold. June 5, 2019 Comments at 12. Those prior comments recommended a policy that would commit the County to adopting more stringent air quality thresholds outside the Ojai Planning Area. *Id.* That policy should be considered as an additional mitigation measure for the Draft Plan’s impacts on air quality.

Furthermore, all County air quality thresholds must be interpreted and applied in a manner consistent with CEQA. Our June 5, 2019 comments detailed the ways in which the current Air Quality Assessment Guidelines violate CEQA. June 5, 2019 Comments at 6-10. For this reason, CFROG appreciates the clarifications in Policy HAZ-10.11. In keeping with the revised policy, both the Air Quality Assessment Guidelines and the Initial Study Assessment Guidelines must be revised in a manner that reflects CEQA's requirements as outlined in our June 5, 2019 comments.

III. The DEIR for the 2040 General Plan Fails to Comply with CEQA.

A. The DEIR's Proposed Measures to Weaken General Plan GHG Reduction Policies Lack Support.

The Draft Plan includes policies that would reduce GHG emissions from both trucking and flaring associated with oil and gas production. The DEIR proposes "mitigation measures" that would water down both policies, but fails to establish any legal or evidentiary basis for doing so.

1. Mitigation Measure PR-2 (Weakening Pipeline Requirements)

Currently, oil and produced water from local oil wells are largely transported by truck. Trucking these oil production by-products creates safety hazards on County roads, exposes residents to toxic diesel pollution, and causes substantial amounts of greenhouse gas emissions due to truck vehicle miles travelled. In response to direction from the County Board of Supervisors, the Draft Plan includes Policy COS-7.7: Conveyance for Oil and Produced Water, which addresses this problem by requiring newly permitted oil wells to use pipelines instead of trucks to transport oil and produced water.

The DEIR concludes that, because oil operators located beyond a two-mile radius of a major oil transmission pipeline are likely small producers not extracting a large amount of oil, the added costs to these oil companies of constructing pipeline connections make this policy infeasible to implement and may lead to a loss of petroleum resources. DEIR at 4.12-26. The DEIR therefore proposes Mitigation Measure PR-2, which would revise Policy COS-7.7 to allow trucking if the project proponent demonstrates that conveying water or gas by pipeline would be infeasible. *Id.* at 4.12-31. There are numerous flaws with the DEIR's approach.

First, the DEIR provides no evidence that the cost of constructing pipelines would make continued extraction economically impractical. *See Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1352, 1357 (evidence must show

alternative is economically impracticable, not merely more expensive, to support finding of infeasibility). The DEIR cites one project that would have required a 6- to 10-mile pipeline as an example (DEIR at 4.12-23 to 4.12-24), but it provides no comprehensive economic analysis or other evidence to support its assumption that all operators more than two miles from an existing pipeline likely would have to transport oil and water by truck. *See id.* at 4.12-25 to 4.12-26. Therefore, the DEIR's proposal lacks the evidentiary support CEQA requires.

The DEIR's assumption that all operators located more than two miles from a pipeline are "smaller oil producing operations that are not extracting a large amount of oil" (DEIR at 4.12-26) particularly lacks factual support. Indeed, a review of oil and gas wells located in Ventura County on the California Geologic Energy Management Division ("CalGEM", formerly DOGGR) website provides evidence to the contrary. For example, two of the largest clusters of active oil wells outside the two-mile radius from major transmission lines in the County are in the Timber Canyon oilfield and in the Sespe oilfield. *See*, <https://maps.conservation.ca.gov/doggr/wellfinder/#/-119.00532/34.42770/12> and DEIR at 4.12-25, Figure 4.12-4. Carbon California owns both the Timber Canyon and Sespe oilfields and operates oil wells in both fields. *See* Carbon Energy Corporation Corporate Overview 2019, at 13 attached as Exhibit 11. Carbon California does not fit the profile of a "smaller oil producing operations that are not extracting a large amount of oil." DEIR at 4.12-26. As indicated in a 2019 Air Pollution Control District filing, Carbon California represented that it produces \$300,000 of oil a month or 12% of Carbon's total California production income at Timber Canyon alone. Ventura County Air Pollution Control District, Order Granting Interim Variance, Hearing Board Case No. 878 at 4 (August 26, 2019), attached as Exhibit 12. A revised analysis must evaluate ownership of existing wells outside the two-mile radius from transmission lines, the existing number of wells that already reinject their waste water into wells or already transmit it via pipeline, and the degree to which oil operators can reasonably be expected to consolidate operations to make construction of new transmission lines feasible.

Second, the DEIR provides no criteria for determining whether a project applicant has adequately demonstrated that conveying oil and water by pipeline is infeasible. Instead, Mitigation Measure PR-2 would delegate the feasibility finding to unnamed planning staff. Under CEQA, the lead agency has to determine the feasibility of a project (or by extension, mitigation measures associated with the project) by making written, public findings when the project is approved. Pub. Resources Code § 21081(a); CEQA Guidelines §§ 15091, 15092. CEQA prohibits delegation of the responsibility to adopt findings regarding the feasibility of mitigation. CEQA Guidelines § 15025(b)(2). The

revised policy would delegate far more than the simple responsibility to implement mitigation. Rather, Mitigation Measure PR-2 would require County staff to make fundamental policy decisions that affect County residents' public and social health—decisions CEQA requires the County itself to make, in written findings on the record, supported by substantial evidence.

Third, and relatedly, Mitigation Measure PR-2 violate CEQA by improperly deferring formulation of mitigation. Again, the measure permits County staff to allow trucking of oil and produced water if “the proponent demonstrates” that conveyance by pipeline is infeasible. DEIR at 4.12-31. However, as noted above, the measure does not specify any criteria for infeasibility and provides no specific requirements for analysis or documentation related to feasibility. Absent any explicit criteria, County staff could allow trucking of oil and produced water whenever oil producers simply *claim* infeasibility—benefiting oil company profits while exacerbating climate change and saddling County residents with toxic air emissions and safety hazards. Indeed, just this week, the California Court of Appeal invalidated a mitigation measure that required applicants to take certain actions “to the extent feasible,” finding the measure both improperly deferred and inconsistent with CEQA’s purpose. *See King & Gardiner Farms, LLC v. County of Kern*, No. F077656 (Cal. App. 5 Dist., filed Feb. 25, 2020), slip op. at 40-41.

Generally, mitigation measures should not be deferred nor findings of feasibility delegated to staff. CEQA Guidelines, §§ 15126.4(a)(1)(B), 15025(b)(2). A lead agency may legally defer mitigation under CEQA only if it (1) “adopt[s] specific performance criteria that the mitigation measures were required to satisfy”; (2) shows that “practical considerations prevented the formulation of mitigation measures at the usual time in the planning process;” (3) “commit[s] itself to formulating the mitigation measures in the future.” *POET, LLC v. State Air Resources Bd.* (2013) 218 Cal.App.4th 681, 736.) With respect to the proposed revisions to Policy COS-7.7, the County fails to meet any of these requirements.

In sum, as revised by Mitigation Measure PR-2, Policy COS-7.7 would provide no guidance or concrete performance standards on how feasibility determinations must be made. Staff’s determinations, made long after the approval of the Draft Plan, would take place out of public view and without a hearing. “[P]ublic participation is an essential part of the CEQA process.” *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 467 (internal quotation omitted). Delegating fundamental feasibility findings to unelected staff, without any criteria or performance standards, violates CEQA.

2. Mitigation Measure PR-3 (Weakening Gas Collection Requirements and Flaring Limitations)

Mitigation Measure PR-3 suffers from the same fundamental deficiencies as Mitigation Measure PR-2, discussed above. Mitigation Measure PR-3 would revise Policy COS-7.8: Limited Gas Collection, Use, and Disposal. This policy as proposed in the Draft Plan requires that gases from all new discretionary oil and gas wells be collected for use, sale or proper disposal. Draft Plan, Appendix B at 6-13. The DEIR concludes that Policy COS-7.8 could prove too costly for new discretionary oil and gas wells located outside of a two-mile radius of a major gas transmission pipeline. DEIR at 4.12-30. The DEIR therefore proposes a mitigation measure that revises Policy COS-7.8 to allow flaring and venting outside of emergency situations if the proponent ‘demonstrates’ that conducting operations without flaring is deemed infeasible. *Id.* But here too, the DEIR fails to provide evidentiary support for its assumptions, improperly delegates fundamental feasibility findings to unelected staff, and improperly defers mitigation by failing to provide criteria or performance standards for evaluating claims of infeasibility. For the same reasons discussed above in connection with Mitigation Measure PR-2, the DEIR’s approach does not comport with CEQA.

In sum, Mitigation Measures PR-2 and PR-3 provide no specific performance criteria that prescribe how the mitigation measure’s goals will be met, let alone provide adequate direction for County staff. As proposed, the mitigation measures would create a loophole allowing oil companies to escape compliance with Policies COS-7.7 and 7.8 simply by claiming that the cost of a pipeline connection or of gas collection is too high. Because Mitigation Measures PR-2 and PR-3 have no concrete performance standards for determinations of feasibility or how the measures’ goals can be achieved, offer no reason as to why the mitigation could not have been developed, and commit only to the most illusory of measures, mitigation is improperly deferred.

Accordingly, the County should maintain both policies as recommended by the Board of Supervisors and as presented in the Draft Plan. All newly permitted discretionary oil wells should be required to convey oil and produced water via pipelines, and all gases produced from new discretionary oil and gas wells should be collected for use, sale or proper disposal.

B. Merely Hortatory General Plan Policies Are Inadequate as Mitigation for CEQA Purposes.

Mitigation measures proposed in an EIR must be “fully enforceable” through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code §

21081.6(b); CEQA Guidelines § 15126.4(a)(2). Many of the General Plan's policies and programs relied on to mitigate impacts related to GHG emissions are vague, optional, directory, or otherwise unenforceable. These policies should be made mandatory. A few examples—out of numerous instances—include the following:

- LU-11.4 Sustainable Technologies: *The County shall encourage discretionary development on commercial and industrial- designated land to incorporate sustainable technologies....* Draft Plan Appendix B at B-31. (This policy is optional and unenforceable; the word “require” should replace “encourage.”)
- LU-18.5 Participation in Climate Change Planning: *The County shall encourage stakeholders in designated disadvantaged communities who are vulnerable to sea level rise or other climate change impacts to have the opportunity to learn about and participate in the decision-making process for adaptation planning within Ventura County.* Draft Plan Appendix B at B-32. (This policy is optional and unenforceable; the word “encourage” should be replaced with “provide opportunities for”; this policy should have an accompanying implementation program that specifies the sort of opportunities the County will provide to facilitate public participation.)
- PFS-2.1 Sustainable Plans and Operations: *The County shall encourage energy efficiency, greenhouse gas reduction features, and resiliency planning into County facility and service plans and operations.* Draft Plan Appendix B at B -43. (This policy is optional and unenforceable; the word “require” should replace “encourage.”)
- COS-7.4 Electrically-Powered Equipment for Oil and Gas Exploration and Production. *The County shall require discretionary development for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible....* Draft Plan Appendix B at B -49. (This policy is vague and unenforceable, improperly delegates feasibility findings to staff, and provides no criteria or performance standard for determining feasibility.)
- Program AG-K: *reduce the amount of water that needs to be treated, pumped and conveyed, which requires the use of energy”* Draft Plan at 4.8-41. (This policy is vague and unenforceable as it provides no guidance as to

quantities that could be treated, specific treatment methods, or other information on how the County would implement this program.)

Related Implementation Program K: Water-Saving Irrigation Techniques Program is equally unenforceable as it directs the County only to collaborate with and support the UC Cooperative Extension Office educational programs and does not require the agency to take any specific action.

- COS-M Oil and Gas Tax: *The County shall evaluate the feasibility of establishing a local tax on oil and gas operations located in the unincorporated county.* Draft Plan Appendix B at B53. (This policy is vague, unenforceable and voluntary as it does not commit the County to taking any concrete steps toward implementing a tax beyond evaluating its feasibility. The policy should be revised to state “The County shall, by January 1, 2022, evaluate the feasibility of establishing a local tax on oil and gas operations located in the unincorporated county, and if the County determines any such tax is feasible, it shall, by January 1, 2023, develop and propose such a tax measure for voter approval.”)
- HAZ-10.1: Air Pollutant Reduction Consistent with the General Plan: The County shall strive to reduce air pollutants from stationary and mobile sources to protect human health and welfare, focusing efforts on shifting patterns and practices that contribute to the areas with the highest pollution exposures and health impacts. Draft Plan Appendix B at B59. (This policy is optional and unenforceable; the words “achieve substantial reductions of” should replace “strive to reduce.”)

A general plan’s goals and policies are frequently somewhat vague and aspirational. However, the County may rely on such policies to mitigate environmental impacts under CEQA *only if* they represent firm, enforceable commitments. *See Napa Citizens for Honest Gov. v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 358 (citing *Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351, 377). CEQA requires that mitigation measures actually be implemented—not merely adopted and then disregarded. *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1186-87; *Federation of Hillside & Canyon Assns. v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261.

Here, the proposed Plan’s vague and noncommittal policies and programs (and policies for which no implementation programs are identified) do not enforceably commit

the County to specific actions and thus fail to mitigate impacts. Moreover, DEIR proposed Mitigation Measure GHG-4 (New Implementation Program HAZ-X: Greenhouse Gas Reduction Policy Enhancement) fails to remedy the aforementioned failures. Mitigation Measure GHG-4 directs the Climate Emergency Council, to be established under Policy COS-CC, to develop subprograms that “may” include expansions to programs in the General Plan. DEIR at 4.8-47. Aside from the fact that the measure itself indicates that expansion of emission reduction programs is uncertain through use of the word “may,” this mitigation measure again defers identification of feasible, effective measures needed to reduce significant impacts. As discussed above, this approach is unlawful. CEQA Guidelines, §§ 15126.4(a)(1)(B).

Because the DEIR cannot ensure that the referenced policies will in fact be implemented to mitigate the proposed Plan’s impacts, and because the proposed mitigation further defers identification of mitigation, the policies and measures cannot serve as CEQA mitigation. *See Anderson First*, 130 Cal.App.4th at 1186-87.

C. The DEIR Has An Obligation to Consider Additional General Plan Policies That Would Mitigate the Significant Environmental Effects of Oil and Gas Development.

As indicated in our earlier comments, CFROG is concerned about the effects of oil and gas drilling on communities within the County and more broadly. The drilling and maintenance of oil and gas wells contribute to: local air pollution, climate change, contamination of water supplies, and risks to public health and safety. To this end, the County General Plan should do more to ensure protection of the County’s natural resources and to preserve quality of life for all the County’s residents.

1. Land Use Element

a. Climate and Public Health Alternative: Prohibit New Oil and Gas Development

Continued and expanded oil and gas production runs counter to the state’s 2030 and 2050 GHG reduction goals. *See* Health & Safety Code §§ 38550, 38566; Executive Order S-3-05. Expanded production also runs directly counter to state efforts to reduce both demand and supply of fossil fuels and to achieve carbon neutrality by 2045. Accordingly, in its comments on the Preliminary Draft Plan, CFROG recommended policies that would prohibit new oil and gas development in the County. *See* June 5, 2019 Comments at 3-5.

As those policies were not evaluated in the DEIR, CFROG once again proposes that the following new policies³ be added to the General Plan Land Use Element as mitigation measures and/or as part of a “Climate and Public Health Alternative” that would reduce the significant impacts of oil and gas development:

Policy LU-xx Prohibition of New Oil and Gas Extraction. The development, construction, installation, or use of any new facility, appurtenance, or above-ground equipment, whether temporary or permanent, mobile or fixed, accessory or principal, for petroleum extraction is prohibited on all lands within the County’s unincorporated area as a reasonable means of reducing greenhouse gas emissions and protecting the health and welfare of residents consistent with federal and state law.

Existing oil and gas operations would become nonconforming uses under this policy. Those uses, in turn, should be phased out according to a schedule that acknowledges vested rights and constitutional limitations while simultaneously supporting statewide efforts to reduce both supply and demand of fossil fuels. CFROG thus recommends that the following policies and implementation program be added to the General Plan, again either as mitigation measures or as part of an alternative that would reduce significant environmental impacts:

Policy LU-xx Existing Oil and Gas Facilities. Oil and gas extraction land uses lawfully existing on *[the effective date of the General Plan Update]* may continue as nonconforming uses to the extent allowed under State and local law until they are phased out pursuant to Policy LU-xx. Such uses, while they are continuing, shall not be enlarged, increased, extended, or otherwise expanded or intensified.

Policy LU-xx Phase-Out of Nonconforming Oil and Gas Operations. Nonconforming oil and gas extraction land uses shall be terminated within the shortest period of time necessary to ensure recovery of capital investments and compliance with constitutional limitations.

Implementation Program LU-X: To implement Policies LU-xx, xx, and xx [Prohibition, Existing Facilities, and Phase-Out], on or before January 1, 2022, the County shall develop and propose for adoption an ordinance providing for amortization of non-conforming oil and gas land uses, notice and hearing requirements, and any other provisions necessary to phase out such uses in a manner consistent with state and federal

³ The policies proposed in this letter are substantively equivalent to the policies proposed in CFROG’s June 5, 2019 Comments, although the specific wording of some proposals has been revised.

law. The ordinance shall contain provisions sufficient to ensure that all non-conforming oil and gas uses will be discontinued no later than 2045 unless discontinuance is expressly prohibited or precluded by state or federal law.

b. Discretionary Review and Permitting

In the absence of a complete prohibition on new wells, the County should require all new oil wells and proposed expansions at existing facilities to obtain discretionary permits. As discussed in our prior comments, under current Ventura County policies and practices, the vast majority of oil and gas development in the County is not subject to local CEQA review or conformance with current County policies and regulations. This is because the County requires only a zoning clearance for any additional oil wells drilled within the extensive areas covered by antiquated special use permits. Under current County practices, these zoning clearances are considered to be ministerial and thus do not trigger CEQA's environmental review and mitigation requirements. We also understand that the County has not been requiring compliance with updated regulations for these clearances.

CFROG appreciates that the Board of Supervisors recently directed County staff to prepare an ordinance requiring discretionary review of new and expanded oil and gas operations at facilities subject to antiquated special use permits. However, CFROG strongly believes that a policy requiring such review should be included in the General Plan.

The Draft Plan includes policies requiring new or modified *discretionary* oil and gas development to comply with current policies, standards, and conditions (Policy COS-7.3) and for new discretionary oil and gas development to use electrically-powered equipment (Policy COS-7.4) and to restore and revegetate the site after production (Policy COS-7.5). However, these policies apply only if a Project is subject to issuance of a discretionary permit. Because the Draft Plan does not require discretionary review for all new and expanded oil and gas operations, the Draft Plan and its DEIR fail to ensure that such operations will comply with new policies and programs to reduce GHG emissions, as well as address other impacts.

CFROG proposes the following policies to ensure that any new or expanded wells undergo discretionary review.

Policy LU-xx Renewal of Oil and Gas Facility Permits. All applications for renewal of oil and gas facility permits shall undergo discretionary review and shall be subject to updated air emissions requirements and other standards and conditions related

to oil and gas operations. Terms of renewed permits shall be limited in duration to the reasonably expected life of the wells.

Policy LU-xx Expansion of Existing Oil and Gas Operations. Proposed changes to or expansions of existing oil and gas sites, facilities, or activities shall undergo discretionary review to ensure compliance with updated regulations and appropriate environmental review pursuant to the California Environmental Quality Act.

Policy LU-xx Discretionary Review of All New Wells. Discretionary review shall be required for the drilling or construction of any new well, and for the re-drilling or deepening of any existing well, unless any such drilling, construction, re-drilling, or deepening is specifically identified by location and number or specifically authorized in an active discretionary permit. Policy LU-xx Inspection and Monitoring of Oil and Gas Facilities. Approved expansions of existing oil and gas operations shall be conditioned to require monitoring through installation of continuous emission monitoring systems (CEMS) for air quality emissions and continuous effluent quality monitoring system (CEQMS) for water pollution to detect emissions and plumes in real time.

These proposed policies are intended not only to support adoption of the ordinance that the Board of Supervisors directed staff to develop in September 2019, but also to reinforce existing County Code provisions requiring new oil and gas development to be authorized by a discretionary conditional use permit. *See* Non-Coastal Zoning Ordinance [“NCZO”], §§ 8105-4 and 8105-5, “Mineral Resource Development,” and “Oil and Gas Exploration and Production”; Coastal Zoning Ordinance [“CZO”], § 8174-5, under heading “Oil and Gas: Exploration and Production”). Similarly, these policies would support County Code provisions requiring discretionary approval in through permit modification for any material change to an existing permit. *See* NCZO, § 8111-6.1; CZO, § 8181-10.4.) These policies would reduce the overall impacts of oil and gas development by ensuring discretionary review, and site-specific mitigation and monitoring following CEQA review.

Likewise, we propose the following General Plan policy to address oil and gas facility operations and expansions under Antiquated Conditional Use Permits.

Policy LU-xx Oil and Gas Facilities Operating with Antiquated Conditional Use Permits. All oil and gas exploration and production operations, including legally existing operations lacking discretionary permits under the County Zoning Ordinance, are automatically subject to all requirements of the County Zoning Ordinance, General Plan, and other local regulations and standards relating to oil and gas exploration, extraction,

and production, except to the extent that application of such regulations or standards would impair a vested right under state law.

This policy is feasible as evidenced by County Counsel's position⁴ regarding the feasibility of amending the County Code to include a provision requiring antiquated conditional use permits to be and consistent with the Board's direction to staff to update the County Code accordingly. Letter Report from County Counsel, Leroy Smith, to the County Board of Supervisors dated September 10, 2019, at 4, attached as Exhibit 13.

Finally, CFROG previously proposed a policy that would prohibit extreme extraction methods like well stimulation treatments (including fracking) and cyclic steaming for tar sands production. June 5, 2019 Comments at 6. The DEIR did not evaluate this proposed policy. This policy should be evaluated as a mitigation measure for air quality, greenhouse gases, toxic and seismic hazards, and water quality and supply, all of which are adversely affected by extreme extraction.

Policy LU-xx Prohibit Extreme Extraction. The development, construction, installation, or use of any facility, appurtenance, or above-ground equipment, whether temporary or permanent, mobile or fixed, accessory or principal, for well stimulation treatments, cyclic steaming, and steam flooding are prohibited on all lands within the County's unincorporated area.

2. Conservation and Open Space Element

a. Oil and Gas Resources

The Conservation and Open Space Element's proposed policies related to oil and gas resources are also lacking specificity and enforceability. CFROG proposes the revisions to the following proposed General Plan policies:

COS-7.5 Restoration and Revegetation of Sites Used for Oil and Gas Exploration, Extraction, and Production. The County shall require that discretionary development for oil and gas exploration activities and all existing oil and gas development undergoing permit review be conditioned to require the restoration and revegetation of the site if the exploration does not result in oil and gas production facilities or when production activities are terminated.

⁴ "The County has a good legal argument that it can, in general, require newly proposed oil and gas development under antiquated permits to obtain authorization through a discretionary permit modification." See Exhibit 13, at 4.

COS-7.6 Abandoned Oil and Gas Well Identification. The County shall evaluate discretionary development to identify any abandoned oil and gas wells ~~on the project site~~ on all oil and gas operation sites.

In addition, CFROG proposes the following new policies be added to the Conservation and Open Space Element:

Policy COS-xx Nonconforming Oil and Gas Operations. The County shall actively work to discontinue nonconforming oil and gas extraction uses.

Policy COS-xx Review of Existing Permits. The County shall review all oil and gas permits that are 10 years or older to ensure that they are compliant with current standards and regulations to the maximum extent permitted by law.

Policy COS-xx Abandoned Oil and Gas Well Remediation. To prevent contamination of groundwater and leaks to the surface, the County shall require all abandoned oil and gas wells to be cleared of all equipment, plugged, capped and fully remediated in accordance with State and federal requirements within 60 days of ceasing operations.

Policy COS-xx Reuse of Abandoned Oil Fields. The County shall require the reclamation of abandoned oil fields to productive second uses.

Policy COS-xx Off-shore Oil Drilling. The County shall oppose any proposals for new or expanded off-shore oil drilling in the vicinity of Ventura County.

b. Energy Resource Conservation

CFROG recommends the following revisions to the proposed Energy Resource Conservation Policies:

Policy COS-8.1 Reduce Reliance on Fossil Fuels. The County shall promote the development and use of renewable energy resources (e.g., solar, thermal, wind, tidal, bioenergy, hydroelectricity) to reduce dependency on petroleum-based energy sources by developing and implementing incentives for alternative energy development and use.

Policy COS-8.7 Sustainable Building Practices. The County shall ~~promote~~ establish and require sustainable building practices that incorporate a “whole systems”

approach for design and construction that consumes less energy, water, and other nonrenewable resources, such as by facilitating passive ventilation and effective use of daylight.

Policy COS-8.8 Renewable Energy Features in Discretionary Development. The County shall ~~encourage~~ require the integration of features that support the generation, transmission, efficient use, and storage of renewable energy sources in discretionary development.

Policy COS-8.9 Urban Tree Canopy Improvements for Energy Conservation. The County shall ~~encourage~~ require all discretionary development to include the planting of shade trees on each property and within parking areas to reduce radiation heat production.

In addition, CFROG proposes that the County add the following new policies related to energy resource conservation to further reduce GHG emissions:

Policy COS-xx Carbon-free Economy. The County will prioritize and facilitate a rapid transition to a carbon-free economy countywide.

Policy COS-xx Non-fossil Fuels for County Facilities and Fleets. The County will actively pursue a rapid transition to a diversity of non-fossil fuel alternatives for all County facilities and vehicle fleets.

Policy COS-xx Non-fossil Fuels Manufacturing and Distribution. The County will actively pursue, through the development of incentives and streamlined permit review, increasing a diversity of renewable energy manufacturing and distribution facilities countywide.

3. Hazards and Safety Element

The Draft Plan's Hazards and Public Safety element recognizes the threats being faced by the County, particularly climate change and seismic activity. Unfortunately, as CFROG pointed out in prior comments, the measures outlined in the Draft Plan are insufficient to protect County residents from these inevitable hazards and other adverse effects of oil and gas activity.

a. Protection from Seismic Hazards.

The Draft Plan fails to provide adequate protection from identified hazards related to oil and gas pipelines. Specifically, Policy HAZ-4.2 requires oil and gas pipelines to avoid intersecting active faults to the extent possible. However, the policy includes no specific measures for pipelines that must cross a fault line to address steps that must be taken to prevent spills from ruptured lines. CFROG suggests additional policies for the County to consider that would address this omission:

Policy HAZ-xx Safety Standards for Cross Fault Line Pipelines. Gas or crude oil transmission and distribution pipelines which cross active or potentially active fault lines shall be subject to additional safety standards, including emergency shutoff capabilities.

Similarly, in proposed Policy HAZ-4.8, the County attempts to prohibit hazardous material storage facilities within areas prone to severe ground shaking. Yet, there is no mention of the detrimental effects of “fracking” or the injection of wastewater into underground geological formations for storage and disposal. Numerous studies have linked fracking to increased seismic activity. In a county crisscrossed by numerous active and potentially active faults, it is only reasonable for the County to consider the effects of fracking on increasing the likelihood of seismic events and the potential dangers associated with this method of resource extraction.

Additionally, the injection of wastewater into underground formations is also linked to increased seismic events, which could trigger a leak within the formation, which in turn may endanger the groundwater quality in the County. *See*, <https://www.usgs.gov/faqs/does-production-natural-gas-shales-cause-earthquakes-if-so-how-are-earthquakes-related-these> ; “The 2013–2016 induced earthquakes in Harper and Sumner Counties, southern Kansas,” Bulletin of the Seismological Society of America. Justin L. Rubinstein, William L. Ellsworth, and Sara L. Dougherty, available at <https://pubs.er.usgs.gov/publication/70195671> , abstract attached as Exhibit 14; *see also* “Studies link earthquakes to fracking in the Central and Eastern US,” Seismological Society of America, ScienceDaily April 26, 2019, available at <https://www.sciencedaily.com/releases/2019/04/190426110601.htm> , attached as Exhibit 15. Thus, we recommend the County add a policy requiring any fracking or wastewater disposal project to study the potential impacts of triggering seismic events and the impacts if a seismic event does occur. Such activities should not be allowed without a thorough understanding of the potential consequences and with plans in place to limit those negative consequences. To this extent, CFROG suggests adding a new policy to ensure that all injection into subsurface formations is done with a substantial understanding of the potential effects.

Policy HAZ-xx Seismic and Geotechnical Studies for Well Injection. Require that applicant provide additional seismic and other geotechnical studies which demonstrate that there will be no increased risk of earthquakes, subsidence or related geologic issues resulting from extraction, drilling or injection activities, when within a fault zone.

b. Compliance with Local, State, and Federal Regulations and Standards.

Proposed Policy HAZ-7.1 requires all discretionary permits for proposed oil and gas exploration and production projects to comply with local, state, and federal oil spill prevention regulations. This is insufficient. The County must do more to ensure its residents are safe and the environment protected from oil and gas exploration and production projects. As mentioned above, the County must include specific and quantifiable mitigation measures for existing development as well. While the policy contemplates compliance with local standards, the County does not have any standards in place to supplement federal and state regulations to address the specific problems being faced in Ventura County.

Additionally, state and federal regulations have changed and been updated. If a conditional use permit has been issued more than five years ago, the County should require inspection and enforcement of the existing conditions and evaluation if imposing new conditions would significantly improve the safety of such projects. Permits for operations involving hazardous substances also should be subject to discretionary renewal. To that end, CFROG suggests the County include the following policies in the draft plan:

Policy HAZ-xx Maintain Compliance with Local, State, and Federal Oil Spill Prevention Regulations. Review all oil exploration and production development which has been approved more than five (5) years prior to the effective date of this General Plan for consistency with applicable local, state, and federal oil spill prevention regulations. Establish mitigation activities as needed to maintain the standards and conditions required when the permit was issued.

Policy HAZ-xx Review of Permits Involving Hazardous Materials. Permits for any oil exploration and production projects, and associated production facilities, involving the transport or use of hazardous materials must be effective for no longer than five years, and must be reviewed and either renewed, further conditioned, or denied prior to expiration.

c. Increased Bonding Requirements to Ensure Proper Plugging and Abandonment, and Remediation of Oil Production and Exploration Sites.

Based on the wide array of impacts associated with oil and gas development, CFROG suggests that the County increase the bonding requirement to cover potential negative consequences from spills, failure to properly plug and abandon wells, and failure to properly remediate and restore the well site to other beneficial uses. The increased bonding requirement should be linked to proper plugging and abandonment after extraction has been finished. The oil and gas producers should plug the well and implement an abandonment plan. Such plans should be required prior to approval of the discretionary development and must be followed in the event that the well is deemed inactive. Additionally, the Hazards element fails to address the potential dangers associated with improperly abandoned wells. This omission creates a risk of leaks and spills that could harm County residents that may encounter an abandoned oil and gas well unknowingly. CFROG suggests the draft General Plan include a new policy to increase the bonding requirement as a condition of approval to ensure proper plugging, abandonment, and remediation of oil and gas production and exploration sites.

Policy HAZ-xx Increased Bonding Requirement and Remediation Plans. Enforce decommissioning and abandonment standards for oil extraction and exploration projects as a condition of approval. Require applicants to include a cost estimate for decommissioning and site restoration work following the cessation of extraction activities, and to post a bond for the estimated amount. Conduct an inspection after decommissioning and site restoration to ensure that all remediation activities have been satisfactorily completed. Require operators to dismantle all structures that cannot be effectively reused, and to recycle all materials as much as possible. Require that all hazardous waste, including electronics or toxic materials, is disposed of in accordance with applicable health and environmental safety standards.

d. Inspection and Enforcement of Existing CUP Conditions.

With technological advances and changes to state and federal oil and gas exploration and production regulations, the County should prioritize inspection and enforcement of the conditions of approval for existing oil and gas exploration and production sites. This is particularly true with respect to safety and oil spill prevention measures. To this effect, CFROG suggests including a new policy to inspect oil pipelines and enforce existing CUP conditions.

Policy HAZ-xx Annual Inspection and Enforcement of Existing CUP Conditions. Require annual inspections and enforcement of CUP conditions, including ensuring the most up to date spill prevention and safety technology.

e. Real-Time Detection and Monitoring of Emissions and Plumes.

CFROG suggests the County add a policy to the Draft Plan to require monitoring of oil and gas exploration and production sites, including the pipelines used to convey the oil and gas, through the use of cameras or other technology to detect emissions and plumes in real time:

Policy HAZ-xx Inspection and Monitoring of Oil and Gas Facilities. New discretionary oil and gas development and any proposed expansion of or changes to existing oil and gas operations shall be conditioned to require monitoring through installation of continuous emission monitoring systems (CEMS) for air quality emissions and continuous effluent quality monitoring system (CEQMS) for water pollution, or equivalent monitoring measures (including but not limited to thermal imaging cameras) capable of detecting and recording emissions and plumes in real time.

f. Pipeline Inventory and Maintenance Records.

The Draft Plan indicates that oil and gas transport lines have been mapped on the County's GIS. Draft Plan at 7-21. In addition to mapping these facilities, however, the County should also keep accurate records of maintenance and control technology for these pipelines. It is important to track the age of the pipelines and the technology installed on these pipelines to prevent spills from ruptures. By having this information at hand, the County will have the tools to prioritize specific pipelines for maintenance, and in a seismic event, the ability to identify the pipelines requiring immediate attention. Also, if one pipeline fails, by comparing the age and technology on the pipeline, the County can identify those other pipelines in similar conditions that will need to be replaced prior to another failure. CFROG suggests the addition of a new policy to require oil and gas producers to furnish the County with the relevant records on the maintenance and technology installed on those pipelines.

Policy HAZ-xx (Pipeline Inventory and Maintenance Records). Require all oil and gas producers with active pipelines to furnish the County with accurate and up to date maintenance and safety technology records.

IV. The DEIR's Proposed Buffer Requirements For Oil and Gas Operations Are Insufficient to Protect Public Health.

The Draft Plan proposes setbacks from oil and gas operations to protect sensitive receptors from toxic pollutants. Draft Plan at 6-12. Proposed General Plan policy COS-7.2: Oil Well Distance Criteria would require new discretionary oil wells to be located 1,500 from residences and 2,500 feet from schools. DEIR Mitigation Measure PR-1 proposes revisions to this policy to limit the buffer to 1,500 feet from all sensitive receptors. DEIR at 2-40 and 4.12-18. The GPU DEIR indicates that there are currently 23 active and idle oil wells within 2,500 feet of schools and 715 active wells within 1,500 feet of homes in the County. DEIR at 4.12-14.

A number of recent studies and literature reviews have discussed impacts from oil and gas development, including emissions of criteria and toxic air pollutants, water pollution, noise, light, and biological hazards like Valley Fever.⁵ Many of these studies provide a foundation supporting the establishment of setbacks and for imposing setbacks of at least 2,500 feet from oil and gas operations.

For example, a literature review conducted by Nicole J. Wong, MPH, suggests that far greater setback distances are necessary to protect against adverse health outcomes,

⁵ In addition to the studies discussed in detail below, numerous studies and literature reviews have detailed harm from fracking and other forms of oil and gas development. *See, e.g.*, Concerned Health Professionals of NY and Physicians for Social Responsibility, *Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)* (6th ed. June 2019), attached as Exhibit 16; Kristina Marusic, *After a decade of research, here's what scientists know about the health impacts of fracking*, Environmental Health News (April 15, 2019), available at <https://www.ehn.org/health-impacts-of-fracking-2634432607.html> (visited Feb. 25, 2020). Notably, although these studies focused on the health effects of fracking, a comprehensive review of well stimulation techniques (including fracking) by the California Council on Science and Technology ("CCST") concluded that "[a]ll forms of oil and gas development, not just that enabled by well stimulation, may cause similar public health risks." Seth D. C. Shonkoff, et al., *Chapter Six: Potential Impacts of well Stimulation on Human Health in California*, in Jane C. S. Long, et al., California Council on Science and Technology, *An Independent Scientific Assessment of Well Stimulation in California, Volume II: Potential Environmental Impacts of Hydraulic Fracturing and Acid Stimulations at 375* (updated July 2016), available at <https://ccst.us/wp-content/uploads/160708-sb4-vol-II-6-1.pdf> (visited Feb. 25, 2020).

particularly from exposure to air pollutants.⁶ Based on studies showing adverse health effects from air and water pollution at distances well over one-half mile, Ms. Wong concluded that “a 2,500-foot setback recommendation is on the *lower end* of the range of distances where research has determined harmful health and quality of life impacts of toxic emissions and exposures.”⁷

In another example, a study⁸ considered the minimum distance that might be required in case of a blow-out or explosion event by investigating historical evacuation data. This study determined that the average evacuation zone for such incidences is 0.8 miles, or 4,224 feet.⁹ In addition, the Environmental Health Project (EHP), a public health organization consisting of a consortium of experts in environmental studies and public health, agreed that 1.0 to 1.25-mile distance (6,600 feet) from unconventional oil and gas development (i.e., fracking) is an acceptable minimum to protect human health. Additionally, the study recommends greater setback distances for settings where vulnerable subpopulations might gather, such as schools, day care centers, and hospitals.

In sum, these recent reviews, and the numerous scientific studies considered therein, provide scientific and factual support for development of setbacks in excess of 2,500 feet. An setback of at least 2,500 feet is necessary to protect the health and safety of County residents.

Mitigation Measure PR-1 properly expands the list of “sensitive use structures” to which Policy COS-7.2 would apply. DEIR at 4.12-18. However, the measure would reduce the buffer distance from schools from 2,500 feet to 1,500 feet. As discussed above, ample scientific information indicates that a 1,500-foot buffer is likely insufficient to protect public health and safety.

⁶ Nicole J. Wong, MPH, *Existing Scientific Literature on Setback Distances from Oil and Gas Development Sites* (version 2, Nov. 2017), available at <http://www.stand.la/research--reports.html>, attached as Exhibit 17.

⁷ *Id.* at 1; see also *id.* at 6 (Table 1) (comparing distances at which several studies documented potential adverse health outcomes with 2,500-foot proposed setback distance) (emphasis added).

⁸ Haley, M., McCawley, M., Epstein, A. C., Arrington, B., & Bjerke, E. F. (2016). *Adequacy of current state setbacks for directional high-volume hydraulic fracturing in the Marcellus, Barnett, and Niobrara Shale Plays*. ENVIRONMENTAL HEALTH PERSPECTIVES, 124(9), 1323, available at <https://ehp.niehs.nih.gov/doi/full/10.1289/ehp.1510547>

⁹ *Id.* at 3.

In particular, reducing the proposed buffer distance from schools as proposed in Mitigation Measure PR-1 would be both unsupported and unwise. Children are often outdoors at schools, daycare centers, and recreation facilities, where they can be exposed to significant hazards. For example, on March 6, 2006, a small earthquake caused a break in an idle well bore in Upper Ojai, causing oily brine to flow to the surface for months. *See* DOGGR, 2006 Annual Report of the State Oil & Gas Supervisor at 26 (2007), excerpt attached as Exhibit 18; *see also* The Next Big One, VC Reporter (Aug. 22, 2013), at <https://vcreporter.com/2013/08/the-next-big-one/> (visited Feb. 25, 2020); Jhon Arbelaez, Shaye Wolf, and Andrew Grinberg, On Shaky Ground: Fracking, Acidizing, and Increased Earthquake Risk in California at 13 (March 2014), attached as Exhibit 19. Drilling near schools and daycares could expose many more children to similar (or far worse) hazards. Therefore, CFROG respectfully requests that the County revise Policy COS-7.2 to require a minimum setback distance of 2,500 feet from *all* sensitive receptors, including schools, daycares, residences, and medical facilities.

Finally, Policy COS-7.2 would apply only to “new discretionary oil and gas wells.” DEIR at 4.12-18; Draft Plan at 6-12.¹⁰ The proposed policy thus leaves numerous residents with no protection from existing oil and gas wells. *See* DEIR at 4.12-16 (Figure 4.12-2). Although CFROG recognizes that some of these existing wells may be subject to vested rights, existing operations should nonetheless be amortized and phased out as soon as legally possible.

Accordingly, the County should evaluate an additional mitigation measure consisting of the following policy and implementation program:

Policy COS-xx Phase-Out of Existing Oil and Gas Operations Near Sensitive Uses. Existing oil and gas exploration and production activities located closer than the minimum distance from sensitive use structures established by Policy COS-7.2 shall be terminated within the shortest period of time possible, consistent with protection of any vested rights and applicable constitutional limitations.

Implementation Program COS-X: To implement Policy COS-xx [Phase-Out], on or before January 1, 2023, the County shall develop and propose for adoption an ordinance providing for amortization of existing oil and gas exploration and production

¹⁰ As proposed in the Draft Plan, Policy COS-7.2 applies only to “oil wells,” while in the DEIR, the policy would apply to “oil and gas wells.” The policy clearly should apply to both oil and gas wells.

activities located closer than the minimum distance from sensitive use structures established by Policy COS-7.2, notice and hearing requirements, and any other provisions necessary to phase out such uses as quickly as possible in a manner consistent with state and federal law.

V. The DEIR Improperly Eliminated and Failed to Analyze Alternatives That Would Reduce or Avoid Significant Impacts.

The DEIR does not comply with the requirements of CEQA because it fails to undertake a legally sufficient study of alternatives to the Project. A proper analysis of alternatives is essential to comply with CEQA's mandate that, where feasible, significant environmental damage be avoided. Pub. Resources Code § 21002 (projects should not be approved if there are feasible alternatives that would substantially lessen environmental impacts); CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(f). The primary purpose of CEQA's alternatives requirement is to explore options that will reduce or avoid adverse impacts on the environment. *Watsonville Pilots Assn. v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1089. Therefore, the discussion of alternatives must focus on project alternatives that are capable of avoiding or substantially lessening the significant effects of the project, even if such alternatives would impede to some degree the attainment of the project objectives or would be more costly. CEQA Guidelines § 15126.6(b); *see also Watsonville Pilots*, 183 Cal.App.4th at 1089 (“[T]he key to the selection of the range of alternatives is to identify alternatives that meet most of the project's objectives but have a reduced level of environmental impacts”).

As a preliminary matter, the DEIR's failure to disclose the extent and severity of the Project's climate impacts necessarily distorts the document's analysis of Project alternatives. As a result, the alternatives are evaluated against an inaccurate representation of the Project's impacts. Proper identification and analysis of alternatives is impossible until Project impacts are fully disclosed. Moreover, as discussed above, the document's analysis is incomplete and/or inaccurate so that it is simply not possible to conduct a comparative evaluation of the Project's and the alternatives' impacts.

In any case, the DEIR improperly circumscribes its analysis of potential Project alternatives and makes no serious attempt to describe an alternative that avoids or substantially minimizes the climate impacts of the Project. Comments on the Notice of Preparation for the EIR, including comments from CFROG, urged the County to analyze alternatives that would reduce oil and gas production. CFROG also requested that the County add policies and programs that would achieve similar purposes in its comments on the Preliminary Draft Plan. See June 5, 2019 Comments at 3-5, 25-30.

The DEIR identifies three alternatives that would address climate impacts related to GHG emissions. These include: the Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative, the Eliminate or Reduce Existing Oil and Gas Wells or Production Alternative, and the Carbon Neutrality Alternative. As discussed in more detail below, the DEIR, however, declined to evaluate any of these proposals as alternatives, and instead rejected them all as infeasible. The DEIR's refusal to evaluate these additional policies, either as alternatives or mitigation measures, was improper.

A. Alternatives That Would Reduce Oil and Gas Production Were Improperly Rejected.

The DEIR rejected alternatives that would limit oil and gas production on two grounds. First, the DEIR found such alternatives “focuse[d] on one specific land use and [did] not comprehensively address most of the basic project objectives.” DEIR at 6-9. Yet the DEIR does not identify a single project objective that would not be met by an alternative that provides a comprehensive plan for development in the County while simultaneously reducing reliance on oil and gas exploration and production. Such an alternative would still satisfy most if not all of the objectives listed in the DEIR. It would also avoid or substantially lessen significant impacts of oil and gas development. Nothing in CEQA contemplates or permits elimination of an alternative that meets most project objectives solely on the basis that it would reduce environmental impacts associated with a subset of land uses. And even if CEQA did preclude analysis of alternatives that primarily focus on a subset of land uses, the alternatives' provisions still could serve as mitigation measures for the significant effects of those land uses. Either way, the DEIR fails to justify its elimination of these provisions from detailed consideration.

Second, the DEIR claims eliminating or reducing existing oil and gas operations would “present legal and economic feasibility issues.” DEIR at 6-9. This claim, however, is entirely conclusory and lacks any supporting explanation or analysis. It is also wrong.

Reducing both new and existing oil and gas operations in the County is legally feasible. Nearly a century of case law confirms that local governments may determine where oil and gas operations occur, and may even prohibit such operations altogether. *See, e.g., Higgins v. Santa Monica* (1964) 62 Cal.2d 24; *Beverly Oil*, 40 Cal.2d 552; *Pacific Palisades Assn. v. City of Huntington Beach* (1925) 196 Cal. 211; *Hermosa Beach Stop Oil Coalition*, 86 Cal.App.4th 534; *Friel v. Los Angeles County* (1959) 172 Cal.App.2d 142. A 1976 opinion of the Attorney General (59 Ops. Cal. Atty. Gen. 461) suggested that while some local attempts to regulate the precise manner of oil and gas production might be preempted, local governments generally retain their traditional authority to control land use and protect public health; the Attorney General concluded in

this context that an ordinance completely prohibiting oil and gas development probably would *not* be preempted. *See id.* at 478, 484.

Moreover, although many existing oil and gas wells in the County may be subject to vested rights, the County may constitutionally require the elimination of vested nonconforming land uses provided owners and operators are given an opportunity to come into compliance during a reasonable amortization period commensurate with the investment involved. *National Advertising Co. v. County of Monterey* (1970) 1 Cal.3d 875, 879. California courts have long recognized amortization periods as valid means to balance the competing interests of a property owner's property rights and a local agency's need to implement zoning changes to benefit public health and welfare. *Gage*, 127 Cal.App.2d at 460; *see also United Bus. Com. v. City of San Diego* (1979) 91 Cal.App.3d 156, 180 (reasonable amortization period satisfies due process requirements); *Livingston Rock and Gravel Co. v. Los Angeles* (1954) 43 Cal.2d 121, 126-28. Other jurisdictions follow this exact approach; for example, the Los Angeles Planning and Zoning Code currently provides a 20-year amortization period for termination of nonconforming oil and gas operations. L.A. Municipal Code § 12.23(C)(4). The DEIR has not demonstrated that reduction or elimination of existing operations is legally infeasible, and thus fails to comply with CEQA as a matter of law. *See City of San Diego v. Board of Trustees of California State University* (2015) 61 Cal.4th 945, 956.

Finally, although the DEIR cites unspecified "economic infeasibility issues," it fails to provide any evidence or analysis to back up its conclusions. An EIR must contain facts and analysis, not just the "bare conclusions of a public agency." *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 736 (quoting *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.)

B. The DEIR Improperly Disclaims the County's Authority to Fight Climate Change.

The DEIR omits detailed consideration of a "carbon neutrality" alternative based primarily on the assumption that the County lacks the authority and the ability to undertake the fundamental changes necessary to avoid the very worst impacts of climate disruption. DEIR at 6-10 to 6-12. Nobody disputes that confronting the climate crisis will require daunting social and economic transformations. Yet this entire section of the DEIR effectively claims that solving the problem is too difficult, too expensive, and ultimately someone else's responsibility. Simply throwing up our hands and allowing the climate crisis to overtake our communities, however, should never be an option.

Nobody would argue that the County must create a carbon-free economy all on its own. The point, rather, is that prompt and decisive action at all levels of government will be necessary to achieve this goal. The DEIR recites a litany of necessary actions, but it makes no effort to distinguish which actions lie wholly or partially within the County's control. The fact that a "coordinated effort of multiple levels of government" may be needed (DEIR at 6-11) does not provide the County with an excuse to claim it has no responsibility to participate. Nor does the DEIR's weak complaint that taking actions within the County's control (such as improving public transit) "may have financial constraints" (*id.*) suffice to demonstrate that all such actions are infeasible. The California Supreme Court has twice rejected public agencies' attempts to disclaim their portion of responsibility for mitigation that required coordination among different agencies and levels of government based on unsupported claims of legal infeasibility. *See City of San Diego*, 61 Cal.4th 945; *City of Marina v. Board of Trustees of California State University* (2006) 39 Cal.4th 341.

A "carbon neutral" alternative would consist of actions the County could take in implementing its General Plan. The DEIR paints a caricature of such an alternative in order to reject it. Whatever the effort required, failure to work toward and achieve a carbon-free economy by mid-century will expose Ventura County to almost incalculable social and economic damage. The County cannot wait until 2040 or beyond for someone else to do the hard work. It has to start now, with a frank and serious look at alternatives that would commit the County to doing its fair share to avoid catastrophe.

VI. Conclusion

We appreciate your consideration of these comments. CFROG looks forward to continuing to work with the Planning Commission, Board of Supervisors, and County staff throughout the General Plan Update process.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



Kevin P. Bundy

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Attachments:

Exhibit 1 Washington Post, “California climate change: Fires, floods and a fight over free parking,” December 5, 2019

Exhibit 2 Stats.2019, ch. 23, Item 0555-001-3228 (Budget Act - Assembly Bill No. 74)

Exhibit 3 Carbon Neutrality Studies Scope of Work, Study 1

Exhibit 4 Carbon Neutrality Studies Scope of Work, Study 2

Exhibit 5 DOGGR 2017 (annual report)

Exhibit 6 Ventura County Air Pollution Control District, Part 70 Permit No. 00012, Section No. 2 at 1 (Table No.2) (May 14, 2019)

Exhibit 7 Bloomberg News, “NASA Flew Gas Detectors Above California, Found ‘Super Emitters’”, November 7, 2019

Exhibit 8 “A Third of California Methane Traced to a Few Super-Emitters,”
<https://climate.nasa.gov/news...>

Exhibit 9 Myhre, G., et al., 2013: Anthropogenic and Natural Radiative Forcing. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press

Exhibit 10 Ventura County Methane Plum Data

Exhibit 11 Carbon Energy Corporation Corporate Overview 2019

Exhibit 12 Ventura County Air Pollution Control District, Order Granting Interim Variance, Hearing Board Case No. 878

Exhibit 13 Letter Report from County Counsel, Leroy Smith, to the County Board of Supervisors

Exhibit 14 “The 2013–2016 induced earthquakes in Harper and Sumner Counties, southern Kansas” Bulletin of the Seismological Society of America. Justin L. Rubinstein, William L. Ellsworth, and Sara L. Dougherty [abstract]

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Exhibit 15 “Studies Link earthquakes to fracking in the Central and Eastern US,”
Seismological Society of America. Science Daily April 26, 2019

Exhibit 16 Concerned Health Professionals of NY and Physicians for Social
Responsibility, *Compendium of Scientific, Medical, and Media Findings Demonstrating
Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)* (6th ed. June
2019)

Exhibit 17 Nicole J. Wong, MPH, *Existing Scientific Literature on Setback Distances
from Oil and Gas Development Sites* (version 2, Nov. 2017)

Exhibit 18 DOGGR 2006 Annual Report of the State Oil & Gas Supervisor at 26 (2007)
[excerpt]

Exhibit 19 Jhon Arbelaez, Shaye Wolf, and Andrew Grinberg, *On Shaky Ground:
Fracking, Acidizing, and Increased Earthquake Risk in California* (March 2014)

cc: Climate First: Replacing Oil & Gas

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February 27, 2020

Via E-Mail

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Re: County of Ventura 2040 General Plan and Draft Environmental
Impact Report – State Clearinghouse No: 2019011026

Dear Ms. Curtis:

This firm represents Climate First: Replacing Oil & Gas (“CFROG”) on matters related to the 2040 General Plan (“the Draft Plan”) and its draft environmental impact report (“DEIR”). As detailed below, the Draft Plan fails to take meaningful, feasible steps to confront climate change. The DEIR also falls far short of the requirements of the California Environmental Quality Act (“CEQA”) (Public Resources Code section 21000 *et seq.*) and CEQA Guidelines (California Code of Regulations, title 14 section 15000 *et seq.*).

As you know, CFROG’s primary concerns include the effect of oil and gas development on Ventura County’s climate, natural resources, and quality of life. Proximity to oil and gas exploration, extraction, processing, and transportation exposes countless County residents to ongoing harm, exacting a tremendous toll on public health and safety. Moreover, the County is already experiencing severe impacts from climate change, and those impacts are likely to intensify in coming years. As CFROG has pointed out in prior letters, overwhelming scientific evidence shows humanity has only a few years remaining in which to dramatically draw down fossil fuel emissions if we are to preserve a decent chance of avoiding even more severe and lasting disruptions.

Unfortunately, like its predecessor, the Draft Plan does little to promote the policy transitions required to meet this challenge. If anything, the Draft Plan's approach to oil and gas policy largely continues a business-as-usual approach to petroleum extraction. This is so despite the Draft Plan's recognition that the County must reduce greenhouse gas emissions by roughly 60 percent over the next 20 years in order to keep up with reductions demanded by state climate policy.

As explained in CFROG's prior comments,¹ although CFROG recognizes the history and economic importance of the County's oil industry, the time for a transition to cleaner alternative sources of energy and economic sustenance is now. With that principle in mind, CFROG previously submitted recommendations of specific policies and programs to be adopted as part of the General Plan, or if they are not adopted, that they be considered as mitigation measures and/or alternatives in the DEIR for the General Plan. We are disappointed that many of CFROG's recommended policies and programs have neither been included in the Plan nor discussed in the DEIR.

The County's General Plan update process is a critically important planning exercise because so much is at stake. The climate change crisis alone mandates a dramatic refocus away from the business-as-usual approach of facilitating oil and gas extraction in the County. A recent analysis of more than a century of temperature data indicates that temperatures from Santa Barbara southward are warming at double the rate of the continental United States. Washington Post, "California climate change: Fires, floods and a fight over free parking," December 5, 2019, attached as Exhibit 1. Ventura County has suffered an average temperature increase of 4.7 degrees Fahrenheit since preindustrial times and ranks as the fastest-warming county in the lower 48 states. *Id.*

While the Draft Plan contains some laudable policies, it nonetheless fails to demonstrate a serious commitment to tackling this ecological and social crisis. Many of

¹ This firm previously submitted comments on the Preliminary Draft General Plan Update ("Preliminary Draft") dated June 5, 2019. In that letter we described many substantive flaws in the Preliminary Draft, many of which the County disregarded in preparing the Draft Plan. We also recommended numerous new and amended policies and asked that they be considered as mitigation measures and/or alternatives in the DEIR; most of these recommendations, however, are not addressed at all in the DEIR. Consequently, most of the comments in the June 5 letter remain applicable to the current Draft Plan and DEIR. Our June 5, 2019 letter and accompanying exhibits and references are therefore incorporated herein by reference.

the Draft Plan's policies are merely advisory and lack the enforceable detail necessary to achieve real greenhouse gas reductions. The DEIR, for its part, proposes to water down many of the Draft Plan's provisions even further.

The Draft Plan and DEIR are out of touch with both climate science and state policy. The State of California has begun active planning for a managed transition away from fossil fuels. The 2019 Budget Act allocated significant funding for studies outlining a long-term reduction in both demand for and supply of fossil fuels, in service of the state's goal of achieving carbon neutrality by 2045. *See* Stats.2019, ch. 23, Item 0555-001-3228 (Assembly Bill No. 74), attached as Exhibit 2. The state has adopted a scope of work for each study and the planning effort is underway. *See* Carbon Neutrality Studies Scope of Work, Studies 1 and 2, attached as Exhibits 3, 4. The Draft Plan's commitment to expanded oil and gas operations in Ventura County is contrary to these statewide efforts and profoundly counterproductive.

The 2040 General Plan update offers a critical opportunity to support statewide and global efforts by shifting away from dependence on oil and gas production and expanding renewable energy production and consumption. Such a shift would have tremendous benefits, including reduced air pollution and greenhouse gas ("GHG") emissions, lower energy consumption, fewer impacts to public health and safety, and greater water quality protection. In other words, a shift in direction would provide either an alternative or a series of mitigation measures that could further reduce or avoid many of the Draft Plan's significant environmental impacts.

Unfortunately, the Draft Plan and DEIR fail to provide for any such shift, and instead assume continued expansion of oil and gas extraction, even as statewide production continues to decline and the rest of California begins to plan for a post-carbon future. Indeed, the DEIR admits the Draft Plan will not achieve the County's fair share of reductions needed to meet either short-term or longer-term state climate goals. The Draft Plan's business-as-usual approach will create long term environmental damage, affecting residents and future generations throughout the region.

Finally, as detailed below, the DEIR fails to meet CEQA's requirements. For example, the DEIR fundamentally fails to identify or analyze credible, feasible mitigation measures or alternatives that could reduce or avoid the Draft Plan's significant environmental impacts. CEQA requires enforceable, concrete commitments to mitigation and consideration of a range of potentially feasible alternative approaches that could avoid significant impacts. The DEIR, in contrast, primarily offers vague, voluntary, and unenforceable policies, particularly with respect to anticipated greenhouse gas emissions.

As a result, the DEIR fails to describe measures that could avoid or substantially lessen the proposed Plan's numerous significant impacts.

I. The County's Climate Action Plan Is Ineffective At Reducing GHG Emissions.

As acknowledged in the DEIR for the Draft Plan, the County has a considerable number of oil and gas operations in the unincorporated areas. Draft Plan at 6-12. These facilities contribute to climate disruption. Further expanding local oil and gas development will add even more carbon to the atmosphere, undercut California's efforts to reduce emissions, and further limit our ability to avoid the worst effects of climate change. The General Plan Update—and, in particular, the provisions of the Plan comprising the County's Greenhouse Gas Strategy or Climate Action Plan ("CAP")—offers an important opportunity to reduce emissions from oil and gas development.

Unfortunately, the CAP as described in Appendix B to the Draft Plan largely passes up this opportunity. As explained in more detail below, the CAP presents incomplete and inaccurate data regarding anticipated GHG emissions under the proposed Plan. In addition, the CAP lacks specific, enforceable measures necessary to achieve the established targets and goals for emission reductions. As a result, the CAP is ineffective in reducing anticipated GHG emissions, and the DEIR's conclusions regarding the Draft Plan's climate impacts are without support.

A. The Baseline Inventory of GHG Emissions Is Incomplete and Inaccurate.

As we pointed out in our prior letter on the Preliminary Draft, the baseline inventory of County GHG emissions is the foundation of the CAP. Without a complete and accurate inventory, the County cannot accurately project future business-as-usual ("BAU") emissions or measure the effectiveness of reduction measures in meeting identified targets and goals. Effective policies cannot be built on a flawed inventory. Unfortunately, the CAP inventory remains incomplete, internally inconsistent, and inaccurate.

According to the CAP, 2015 stationary source emissions totaled 275,096 MTCO_{2e}. Draft Plan, Appendix B at B-7 (Table B-2), B-8. This estimate purportedly was derived "by scaling the statewide emissions reported for oil and gas production to the local level using the proportion of oil and gas production in the unincorporated area relative to the statewide total." *Id.* at B-8.

The estimate in the CAP is not clearly supported by data in the DEIR. Appendix D to the DEIR appears to take two different approaches to estimation of stationary source emissions. The first approach (in a spreadsheet entitled “Estimating Ventura County Stationary Source Emissions from Oil and Gas”) estimates a total of 284,693 MTCO_{2e}. DEIR, Appendix D at 43. The second approach (apparently using two spreadsheets, one entitled “Statewide Stationary Source Emissions from Oil and Gas” and the second entitled “State Report on Well County and Production of Oil, Gas, and Water by County – 2015”) arrives at the “scaled” emissions estimate of 275,096 MTCO_{2e} discussed in the CAP. DEIR, Appendix D at 44-45. Neither the CAP nor the DEIR appears to explain the discrepancy between the two estimates.

Further inconsistencies in the inventory are similarly unexplained. For example, estimates under the first approach described above show zero emissions from natural gas “fuel combustion” in the County. DEIR, Appendix D at 43. Statewide figures supporting the second approach, however, show that natural gas combustion is by far the single greatest source of CO₂ emissions from the oil and gas sector (13,750,201 MTCO_{2e}, or 69.4% of statewide total CO_{2e} emissions). *Id.* at 44. Neither the CAP nor the DEIR appears to contain any evidence that unlike the rest of the state, not a single oil and gas operation in Ventura County consumes natural gas. As we pointed out in our letter on the Preliminary Draft Plan, cyclic steaming and steam flooding operations—which often burn natural gas to generate steam—are currently occurring in the County, including in the Oxnard oilfield. DOGGR 2017 (annual report) at 22 (attached as Exhibit 5) to comments on Preliminary Draft Plan). In fact, the Ventura County Air Pollution Control District recently issued a permit to California Resources Production Corporation authorizing operation of steam generators “fired on PUC Natural gas, with PUC natural gas mixed with produced gas as secondary fuel.” VCAPCD, Part 70 Permit No. 00012, Section No. 2 at 1 (Table No.2) (May 14, 2019), attached as Exhibit 6; *see also* VCAPCD Rule 74.15.B.1(3)(a) (allowing steam generators to use “alternate fuel” only “due to the curtailment of natural gas service to the individual unit by the natural gas supplier” and only during “the period of natural gas curtailment”). Steam generators in Ventura County clearly use natural gas in the production of oil. The inventory’s omission of natural gas combustion emissions is thus inaccurate and unsupported.

The “scaled” estimate of emissions from County oil and gas operations also appears unreasonably low. DEIR Appendix D concludes that Ventura County produces 4.2% of the state’s oil and 5.1% of the state’s associated gas. DEIR, Appendix D at 45. Yet DEIR Appendix D also concludes that Ventura County contributes only about 1.4% of the statewide GHG emissions from oil and gas (275,096 MTCO_{2e} out of the statewide total of 19,803,975 MTCO_{2e}). Again, neither the CAP nor the DEIR explains why

“scaled” Ventura County emissions are so low compared to the volumes of oil and gas produced.

This stark discrepancy further underscores a point we made in our prior comments: the Preliminary Draft Plan failed to explain or provide evidentiary support for the “scaled” estimate, i.e., for calculating Ventura County emissions as a percentage of statewide emissions from the oil and gas sector rather than based on information specific to exploration and production in Ventura County. Neither the CAP nor the DEIR supplies the missing explanation. Local oil and gas operations may or may not be consistent with statewide averages in terms of the energy (and associated emissions) required for extraction. However, additional justification and explanation of this methodological choice, based on information specific to Ventura County, is necessary—particularly in light of the DEIR’s apparent conclusion that County oil and gas emissions are significantly lower than anywhere else in the state, even on a “scaled” basis.

The CAP inventory also continues to omit other sources of GHG emissions from oil and gas production. For example, the inventory does not include emissions from the transport of oil and gas production, particularly freight rail and ocean freight emissions. Draft Plan, Appendix B at B-8. Nor does the inventory include any “downstream” emissions from refining or combustion of County-produced oil and gas. As explained in our prior letter, these emissions should have been included because the County controls activities related to exploration and production of oil and gas. Without these activities, emissions from transportation, refining, and combustion of oil and gas produced in the County would not occur. Where, as here, “downstream” emissions are foreseeable and capable of estimation, they should be disclosed. *Cf. Sierra Club v. Federal Energy Regulatory Com.* (D.C. Cir. 2017) 867 F.3d1357; *Mid States Coalition for Progress v. Surface Transportation Bd.* (8th Cir. 2003) 345 F.3d 520. Nor can the County avoid responsibility for disclosing and analyzing rail and ocean freight emissions simply because it may lack authority to prevent or mitigate the effects of these activities directly. See *Association of Irrigated Residents v. Kern County Bd. of Supervisors* (2017) 17 Cal.App.5th 708, 750-52 (federal preemption of railroad regulation did not extend to responsibility for disclosure and analysis of environmental effects of railroad operations under CEQA).

It is also unclear whether the emissions inventory includes aviation emissions. The DEIR includes emission factors for aviation gas and jet fuel. DEIR, Appendix D at 47 and 49. However, the inventory does not appear to include any emissions from aircraft. *Id.* at 27 and 28. Moreover, although the inventory appears to include some emissions from vessels, harborcraft, and cargo handling equipment (*id.* at 27), it is not clear that the inventory includes all emissions related to operations at the Port of Hueneme.

Finally, recent data collected by the National Aeronautics and Space Administration (“NASA”), indicates that emissions from a handful of sites (or “super emitters”) account for the vast majority of California’s methane emissions. *See*, Bloomberg News article, “NASA Flew Gas Detectors Above California, Found ‘Super Emitters’”, November 7, 2019, attached as Exhibit 7; <https://climate.nasa.gov/news/2930/a-third-of-california-methane-traced-to-a-few-super-emitters/> news article, attached as Exhibit 8; and <https://methane.jpl.nasa.gov/>. Of the “super emitters” identified around the State, oil and gas operations accounted for 26 percent of all source emissions.

Several of these “super emitters” are located in Ventura County. *See* Ventura County Methane Plume Data, attached as Exhibit 9. They include, but are not limited to, the Ventura Oil Field, Rincon Oil Field, Bardsdale Oil Field, and South Mountain Oil Field, which were all mapped as emitting methane plumes. Methane is a greenhouse gas that is at least 85 times more potent than carbon dioxide at trapping heat and contributing to global warming over the 20-year period covered by the General Plan.² Therefore, addressing these emissions is critical for the County to meet emission reduction targets required under State law.

Despite this available data, the County’s Draft Plan and DEIR failed to disclose these emissions, analyze their impacts, or identify feasible measures to ensure emission reductions over the life of the Plan. The result is a CAP that presents flawed baseline data of GHG emissions that undermines the entire planning process. Without an accurate baseline inventory, the DEIR’s projected future emissions from the oil and gas sector (see

² Current scientific evidence concerning the global warming potential of methane over different time scales is discussed in detail in CFROG’s comments on the Preliminary Draft Plan. *See* June 5, 2019 Comments at 16-18 and cited references. Specifically, according to the Intergovernmental Panel on Climate Change’s most recent Assessment Report, methane is 85-87 times more potent than carbon dioxide over a 20-year time period, accounting for climate-carbon feedbacks and additional warming from methane oxidation. Myhre, G., et al., 2013: Anthropogenic and Natural Radiative Forcing at 714 (Table 8.7). In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Available at https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf. An excerpt from the IPCC report is attached as Exhibit 10.

DEIR, Appendix D at 45) have no evidentiary basis. Inasmuch as the County permits oil and gas operations in unincorporated lands in the County, the County has an obligation to consider these emissions and take concrete steps to limit them in the future. The failure to do so renders the CAP fatally flawed. A revised CAP must correct this flaw and include a comprehensive inventory of all emissions, including all emissions from oil and gas operations.

B. Emission Forecasts are Inadequately Supported.

Projections of “business as usual” emissions from the oil and gas sector in the CAP and DEIR lack adequate justification and support. The DEIR assumes oil and gas production will increase by more than one million barrels per year between 2015 and 2040. DEIR Appendix D at 45. Stationary sources are projected not only to remain a significant source of emissions in the County, but also to continue increasing, through 2050. Draft Plan at B-10 (Table B-4).

Appendix B appears to use “County-specific demographic” projections—presumably population growth—as the basis for its future emissions projections, although the precise methodology used is not explained. *See* Draft Plan at B-10. The DEIR similarly bases its projections on “growth rates for population, employment and housing” forecast by the Southern California Association of Governments.” DEIR at 4.8-5. Yet neither document explains why stationary source emissions from in-County oil and gas development would be expected to increase due to County population growth. As we noted in our prior comments, the document offers no basis for assuming that local oil and gas development is driven by local population growth in the same manner as transportation or residential or commercial development. Put another way, neither the Draft Plan nor the DEIR offer evidence that local *demand* for oil and gas drives local *production* of oil and gas (or, put another way, that local oil and gas production tracks generic projections of County growth in a linear fashion).

Nor do the Draft Plan or DEIR provide any evidence to support the assumption that County oil and gas production will continue to increase through 2050. *See* DEIR, Appendix D at 45. California production has been declining for many years. *See, e.g.*, U.S. Energy Information Administration, California Field Production of Crude Oil 1980-2018 (attached as Exhibit 3 to June 5, 2019 letter); DOGGR 2017 (attached as Exhibit 2 to June 5, 2019 letter) at 5. The DEIR’s assumptions thus appear contrary to the evidence. To the extent some other assumptions lie behind the projected increase in emissions—for example, that production might increase as a result of new or expanded enhanced oil recovery technologies—Appendix B fails to explain what they are.

In fact, Appendix B's projected increase in production is contrary to state policy and trends. Statewide efforts to decarbonize the electrical grid, electrify the transportation sector, and increase building energy efficiency should reduce local demand for oil and gas significantly over the next several decades. As discussed above, the state is actively planning to transition away from fossil fuels—including reductions in both demand and supply—by 2045. *See* Exhibits 2, 3, 4 [Budget Act; Carbon Neutrality Studies Scope of Work 1 and 2]. Unfortunately, the discussion of statewide legislation and policy that could reduce fossil fuel demand and emissions in coming years (Draft Plan at B-11) is incomplete; for example, it does not include Zero Net Energy improvements to the Building Code or incentives for electric vehicles. Nor does Appendix B mention the state's Short-Lived Climate Pollutant strategy. In short, Appendix B's forecast increase in stationary source emissions lacks adequate support and analysis.

Finally, planning for continued expansion of Ventura County oil and gas production flies in the face of both overwhelming climate science and clear state policy. Nowhere do the Draft Plan or the DEIR adequately disclose or analyze the consequences of this approach or its blatant inconsistency with statewide GHG reduction plans and programs. *See* CEQA Guidelines, § 15125(d).

C. The Draft Plan Presents Vague Measures That Cannot Produce the Necessary Emission Reductions and Improperly Defers Development of Implementation Programs.

Appendix B's most fundamental weakness may be its failure to identify a set of GHG reduction measures that comes anywhere close to achieving the County's desired targets and goals. The Draft Plan offers only a vague assurance that the "County shall reduce GHG emissions" through "combination of measures included in the GHG Strategy" (Draft Plan at B-15; Policy COS-10.4), but never addresses how that "combination of measures" will reduce emissions by the amounts necessary.

Indeed, many of the "CAP" measures collected in Appendix B from various other elements of the General Plan represent only soft, unquantifiable commitments to "encourage" or "promote" various actions (see section II.B below for specific examples). Although hortatory, qualitative measures of this sort may be appropriate to supplement more concrete requirements, identification of specific, enforceable measures and quantification of resulting emissions reductions are required to demonstrate consistency with quantitative targets and goals. Enforceable, concrete commitments to mitigation also are required under CEQA. Neither the Draft Plan nor the DEIR contains adequate measures of this kind.

D. The CAP and DEIR Fail to Provide Adequate Mitigation to Reduce the Plan's Emissions.

The DEIR acknowledges that GHG emissions under the proposed Plan would be significant, even with proposed mitigation measures. DEIR at 4.8-49. The DEIR also acknowledges that the Draft Plan would result in future GHG emissions that exceed the State's 2030 and post-2030 targets for emission reduction. DEIR at 4.8-52. However, the DEIR fails to identify feasible mitigation measures that will lessen these significant impacts.

Under CEQA, mitigation measures proposed in an EIR must be "fully enforceable" through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code § 21081.6(b); CEQA Guidelines §15126.4(a)(2). As the DEIR itself admits, a substantial number of the programs and policies proposed in the Plan will not result in quantifiable emissions reductions and thus cannot be counted on to mitigate the Plan's significant GHG impacts. DEIR at 4.8-50. As discussed in more detail in section III.B of this letter below, the programs and policies in the General Plan are unlikely to reduce the Project's impacts because of their voluntary, flexible, and unenforceable nature. Here, the proposed policies are vague and include directory terms like "as appropriate," "where feasible" and "support," rather than mandatory terms like "require," "reduce," and "deny."

Moreover, the Draft Plan and DEIR fail to adequately address methane emissions from the oil and gas sector. The Plan includes programs to address methane emissions from the waste (e.g., PFS-L), water (e.g., Program WR-G) and agriculture (e.g., Programs AG-I, AG-J, and AG-K) sectors. DEIR at 4.8-44. The Plan, however, omits policies, programs, or mitigation measures to reduce methane emissions from oil and gas operations. This omission should be corrected through additional mitigation measures that will effectively limit expansion of oil and gas operations in the County and actively transition the County's economy away from fossil fuels. See, sections III B and C of this letter below for specific policy recommendations related to GHG emissions reductions.

Finally, the DEIR improperly attempts to avoid responsibility for proposing mitigation by claiming the County has no authority "to enforce measures that may potentially infringe upon private property rights, reduce the economic competitiveness of local businesses, or inhibit the ability for residents to travel between residences, jobs, and amenities." DEIR at 4.8-49; *see also id.* at 4.8-39, 4.8-52. While the County obviously must operate within constitutional limits, the DEIR's attempt to disclaim any authority to control activities within its jurisdiction is overbroad to the point of abdication. For more than a century, courts have recognized that local governments may exercise their police

powers despite resulting impingements upon property rights and economic competitiveness. *See, e.g., Hadacheck v. Sebastian* (1915) 239 U.S. 394, 409-10. Moreover, to the extent the DEIR is claiming that any additional mitigation (particularly with respect to existing land uses) would be legally infeasible, its conclusory statements regarding lack of authority fall far short of CEQA's requirements. *See, e.g., City of San Diego v. Board of Trustees of California State University* (2015) 61 Cal.4th 945, 956 ("An EIR that incorrectly disclaims the power and duty to mitigate identified environmental effects based on erroneous legal assumptions is not sufficient as an informative document.") (internal quotation omitted). "In mitigating the effects of its projects, a public agency has access to all of its discretionary powers . . . includ[ing] such actions as adopting changes to proposed projects, imposing conditions on their approval, adopting plans or ordinances to control a broad class of projects, and choosing alternative projects." *Id.* at 959. The DEIR's attempt to abdicate the County's regulatory and police power authority has no legal basis and cannot support any finding of infeasibility.

The DEIR also appears to conclude that the County may weigh the Draft Plan's asserted economic and other benefits against its environmental consequences without first proposing and adopting all feasible measures to mitigate or avoid significant effects. *See* DEIR at 4.8-49, 4.8-52. This conclusion rests on a misinterpretation of CEQA. An agency must properly find that mitigation and alternatives are infeasible *before* engaging in any balancing of benefits and harms. *See* Pub. Resources Code § 21081(a)(3), (b); CEQA Guidelines § 15092(b)(2). The County may not disclaim its responsibility to develop feasible mitigation by prematurely claiming that the project's benefits outweigh its environmental drawbacks.

E. The Draft Plan's "GHG Strategy" Does Not Satisfy the Requirements for CEQA Streamlining.

As pointed out in our prior comments, the Draft Plan (and the portions of the Draft Plan comprising the "GHG Strategy" or CAP) fails to provide any basis for streamlining analysis of the cumulative climate impacts of subsequent projects based on consistency with the General Plan or CAP. *See* CEQA Guidelines § 15183.5. The DEIR correctly proposes to eliminate one express reference to streamlining based on the CAP. The Draft Plan and the County's Initial Study Assessment Guidelines, however, should be revised to make explicit that neither the General Plan nor the CAP contains sufficient specific, enforceable GHG reduction measures to support streamlined CEQA review of future projects.

Proposed Implementation Program COS-EE (Draft Plan at B-20) would allow streamlined GHG emissions analysis for projects demonstrating that: the project is

consistent with current general plan and zoning designations; that the project incorporates all applicable GHG reduction measures in Appendix B to the General Plan; and the project “clearly demonstrates the method, timing, and process for which the project will comply with applicable GHG reduction measures and/or conditions of approval. Draft Plan, Appendix B at B-20 and B-2. As drafted, however, the CAP falls far short of the requirements of CEQA Guidelines section 15183.5. In order to support a determination that CAP consistency eliminates significant climate effects, a CAP must (among other things) clearly demonstrate that its prescribed measures will actually achieve the reductions necessary to attain the CAP’s stated goals. CEQA Guidelines § 15183.5(b)(1)(D). As discussed above, the CAP provides no basis for such a conclusion.

The DEIR proposes a mitigation measure that deletes Implementation Program COS-EE, purportedly on the ground that project-specific review may ensure greater emissions reductions over time than compliance with generic measures in the General Plan and CAP. *See* DEIR at 2-34 and 2-35, MM GHG-3. We agree that Implementation Program COS-EE should be removed from the Draft Plan, and that rigorous review of the climate impacts of future discretionary projects should be required. Until such time as the General Plan identifies policies and programs that lead to quantifiable emission reductions adequate to achieve the Plan’s stated goals, streamlining environmental review would be unlawful. For this reason, CFROG requests not only that Implementation Program COS-EE be deleted, but also that the Draft Plan and CAP be revised (1) to remove other references to streamlined analysis of future projects (*see, e.g.*, Draft Plan at 12-4, B-3, B-5, B-24 to B-24, B-57), and (2) to expressly state that the General Plan and GHG Strategy are neither sufficient nor intended to be used to support streamlined environmental analysis under CEQA Guidelines section 15183.5. The DEIR similarly must be revised to remove references to CEQA streamlining based on the General Plan or CAP. *See, e.g.*, DEIR at 4.8-4.

II. The Draft Plan Must Ensure Lawful Application of Air Quality Thresholds.

As discussed in our June 5, 2019 comments, CFROG strongly supports retaining existing air quality thresholds in the Ojai Valley Area Plan. CFROG is pleased to see that these provisions have been carried forward into the Draft Plan as Goal OV-55 and Policy OV-55.1. Draft Plan at OV-30. However, as CFROG’s prior comments pointed out, the rest of the County is still subject to a much higher air quality threshold. June 5, 2019 Comments at 12. Those prior comments recommended a policy that would commit the County to adopting more stringent air quality thresholds outside the Ojai Planning Area. *Id.* That policy should be considered as an additional mitigation measure for the Draft Plan’s impacts on air quality.

Furthermore, all County air quality thresholds must be interpreted and applied in a manner consistent with CEQA. Our June 5, 2019 comments detailed the ways in which the current Air Quality Assessment Guidelines violate CEQA. June 5, 2019 Comments at 6-10. For this reason, CFROG appreciates the clarifications in Policy HAZ-10.11. In keeping with the revised policy, both the Air Quality Assessment Guidelines and the Initial Study Assessment Guidelines must be revised in a manner that reflects CEQA's requirements as outlined in our June 5, 2019 comments.

III. The DEIR for the 2040 General Plan Fails to Comply with CEQA.

A. The DEIR's Proposed Measures to Weaken General Plan GHG Reduction Policies Lack Support.

The Draft Plan includes policies that would reduce GHG emissions from both trucking and flaring associated with oil and gas production. The DEIR proposes "mitigation measures" that would water down both policies, but fails to establish any legal or evidentiary basis for doing so.

1. Mitigation Measure PR-2 (Weakening Pipeline Requirements)

Currently, oil and produced water from local oil wells are largely transported by truck. Trucking these oil production by-products creates safety hazards on County roads, exposes residents to toxic diesel pollution, and causes substantial amounts of greenhouse gas emissions due to truck vehicle miles travelled. In response to direction from the County Board of Supervisors, the Draft Plan includes Policy COS-7.7: Conveyance for Oil and Produced Water, which addresses this problem by requiring newly permitted oil wells to use pipelines instead of trucks to transport oil and produced water.

The DEIR concludes that, because oil operators located beyond a two-mile radius of a major oil transmission pipeline are likely small producers not extracting a large amount of oil, the added costs to these oil companies of constructing pipeline connections make this policy infeasible to implement and may lead to a loss of petroleum resources. DEIR at 4.12-26. The DEIR therefore proposes Mitigation Measure PR-2, which would revise Policy COS-7.7 to allow trucking if the project proponent demonstrates that conveying water or gas by pipeline would be infeasible. *Id.* at 4.12-31. There are numerous flaws with the DEIR's approach.

First, the DEIR provides no evidence that the cost of constructing pipelines would make continued extraction economically impractical. *See Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1352, 1357 (evidence must show

alternative is economically impracticable, not merely more expensive, to support finding of infeasibility). The DEIR cites one project that would have required a 6- to 10-mile pipeline as an example (DEIR at 4.12-23 to 4.12-24), but it provides no comprehensive economic analysis or other evidence to support its assumption that all operators more than two miles from an existing pipeline likely would have to transport oil and water by truck. *See id.* at 4.12-25 to 4.12-26. Therefore, the DEIR's proposal lacks the evidentiary support CEQA requires.

The DEIR's assumption that all operators located more than two miles from a pipeline are "smaller oil producing operations that are not extracting a large amount of oil" (DEIR at 4.12-26) particularly lacks factual support. Indeed, a review of oil and gas wells located in Ventura County on the California Geologic Energy Management Division ("CalGEM", formerly DOGGR) website provides evidence to the contrary. For example, two of the largest clusters of active oil wells outside the two-mile radius from major transmission lines in the County are in the Timber Canyon oilfield and in the Sespe oilfield. *See*, <https://maps.conservation.ca.gov/doggr/wellfinder/#/-119.00532/34.42770/12> and DEIR at 4.12-25, Figure 4.12-4. Carbon California owns both the Timber Canyon and Sespe oilfields and operates oil wells in both fields. *See* Carbon Energy Corporation Corporate Overview 2019, at 13 attached as Exhibit 11. Carbon California does not fit the profile of a "smaller oil producing operations that are not extracting a large amount of oil." DEIR at 4.12-26. As indicated in a 2019 Air Pollution Control District filing, Carbon California represented that it produces \$300,000 of oil a month or 12% of Carbon's total California production income at Timber Canyon alone. Ventura County Air Pollution Control District, Order Granting Interim Variance, Hearing Board Case No. 878 at 4 (August 26, 2019), attached as Exhibit 12. A revised analysis must evaluate ownership of existing wells outside the two-mile radius from transmission lines, the existing number of wells that already reinject their waste water into wells or already transmit it via pipeline, and the degree to which oil operators can reasonably be expected to consolidate operations to make construction of new transmission lines feasible.

Second, the DEIR provides no criteria for determining whether a project applicant has adequately demonstrated that conveying oil and water by pipeline is infeasible. Instead, Mitigation Measure PR-2 would delegate the feasibility finding to unnamed planning staff. Under CEQA, the lead agency has to determine the feasibility of a project (or by extension, mitigation measures associated with the project) by making written, public findings when the project is approved. Pub. Resources Code § 21081(a); CEQA Guidelines §§ 15091, 15092. CEQA prohibits delegation of the responsibility to adopt findings regarding the feasibility of mitigation. CEQA Guidelines § 15025(b)(2). The

revised policy would delegate far more than the simple responsibility to implement mitigation. Rather, Mitigation Measure PR-2 would require County staff to make fundamental policy decisions that affect County residents' public and social health—decisions CEQA requires the County itself to make, in written findings on the record, supported by substantial evidence.

Third, and relatedly, Mitigation Measure PR-2 violate CEQA by improperly deferring formulation of mitigation. Again, the measure permits County staff to allow trucking of oil and produced water if “the proponent demonstrates” that conveyance by pipeline is infeasible. DEIR at 4.12-31. However, as noted above, the measure does not specify any criteria for infeasibility and provides no specific requirements for analysis or documentation related to feasibility. Absent any explicit criteria, County staff could allow trucking of oil and produced water whenever oil producers simply *claim* infeasibility—benefiting oil company profits while exacerbating climate change and saddling County residents with toxic air emissions and safety hazards. Indeed, just this week, the California Court of Appeal invalidated a mitigation measure that required applicants to take certain actions “to the extent feasible,” finding the measure both improperly deferred and inconsistent with CEQA’s purpose. *See King & Gardiner Farms, LLC v. County of Kern*, No. F077656 (Cal. App. 5 Dist., filed Feb. 25, 2020), slip op. at 40-41.

Generally, mitigation measures should not be deferred nor findings of feasibility delegated to staff. CEQA Guidelines, §§ 15126.4(a)(1)(B), 15025(b)(2). A lead agency may legally defer mitigation under CEQA only if it (1) “adopt[s] specific performance criteria that the mitigation measures were required to satisfy”; (2) shows that “practical considerations prevented the formulation of mitigation measures at the usual time in the planning process;” (3) “commit[s] itself to formulating the mitigation measures in the future.” *POET, LLC v. State Air Resources Bd.* (2013) 218 Cal.App.4th 681, 736.) With respect to the proposed revisions to Policy COS-7.7, the County fails to meet any of these requirements.

In sum, as revised by Mitigation Measure PR-2, Policy COS-7.7 would provide no guidance or concrete performance standards on how feasibility determinations must be made. Staff’s determinations, made long after the approval of the Draft Plan, would take place out of public view and without a hearing. “[P]ublic participation is an essential part of the CEQA process.” *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 467 (internal quotation omitted). Delegating fundamental feasibility findings to unelected staff, without any criteria or performance standards, violates CEQA.

2. Mitigation Measure PR-3 (Weakening Gas Collection Requirements and Flaring Limitations)

Mitigation Measure PR-3 suffers from the same fundamental deficiencies as Mitigation Measure PR-2, discussed above. Mitigation Measure PR-3 would revise Policy COS-7.8: Limited Gas Collection, Use, and Disposal. This policy as proposed in the Draft Plan requires that gases from all new discretionary oil and gas wells be collected for use, sale or proper disposal. Draft Plan, Appendix B at 6-13. The DEIR concludes that Policy COS-7.8 could prove too costly for new discretionary oil and gas wells located outside of a two-mile radius of a major gas transmission pipeline. DEIR at 4.12-30. The DEIR therefore proposes a mitigation measure that revises Policy COS-7.8 to allow flaring and venting outside of emergency situations if the proponent ‘demonstrates’ that conducting operations without flaring is deemed infeasible. *Id.* But here too, the DEIR fails to provide evidentiary support for its assumptions, improperly delegates fundamental feasibility findings to unelected staff, and improperly defers mitigation by failing to provide criteria or performance standards for evaluating claims of infeasibility. For the same reasons discussed above in connection with Mitigation Measure PR-2, the DEIR’s approach does not comport with CEQA.

In sum, Mitigation Measures PR-2 and PR-3 provide no specific performance criteria that prescribe how the mitigation measure’s goals will be met, let alone provide adequate direction for County staff. As proposed, the mitigation measures would create a loophole allowing oil companies to escape compliance with Policies COS-7.7 and 7.8 simply by claiming that the cost of a pipeline connection or of gas collection is too high. Because Mitigation Measures PR-2 and PR-3 have no concrete performance standards for determinations of feasibility or how the measures’ goals can be achieved, offer no reason as to why the mitigation could not have been developed, and commit only to the most illusory of measures, mitigation is improperly deferred.

Accordingly, the County should maintain both policies as recommended by the Board of Supervisors and as presented in the Draft Plan. All newly permitted discretionary oil wells should be required to convey oil and produced water via pipelines, and all gases produced from new discretionary oil and gas wells should be collected for use, sale or proper disposal.

B. Merely Hortatory General Plan Policies Are Inadequate as Mitigation for CEQA Purposes.

Mitigation measures proposed in an EIR must be “fully enforceable” through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code §

21081.6(b); CEQA Guidelines § 15126.4(a)(2). Many of the General Plan's policies and programs relied on to mitigate impacts related to GHG emissions are vague, optional, directory, or otherwise unenforceable. These policies should be made mandatory. A few examples—out of numerous instances—include the following:

- LU-11.4 Sustainable Technologies: *The County shall encourage discretionary development on commercial and industrial- designated land to incorporate sustainable technologies....* Draft Plan Appendix B at B-31. (This policy is optional and unenforceable; the word “require” should replace “encourage.”)
- LU-18.5 Participation in Climate Change Planning: *The County shall encourage stakeholders in designated disadvantaged communities who are vulnerable to sea level rise or other climate change impacts to have the opportunity to learn about and participate in the decision-making process for adaptation planning within Ventura County.* Draft Plan Appendix B at B-32. (This policy is optional and unenforceable; the word “encourage” should be replaced with “provide opportunities for”; this policy should have an accompanying implementation program that specifies the sort of opportunities the County will provide to facilitate public participation.)
- PFS-2.1 Sustainable Plans and Operations: *The County shall encourage energy efficiency, greenhouse gas reduction features, and resiliency planning into County facility and service plans and operations.* Draft Plan Appendix B at B -43. (This policy is optional and unenforceable; the word “require” should replace “encourage.”)
- COS-7.4 Electrically-Powered Equipment for Oil and Gas Exploration and Production. *The County shall require discretionary development for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible....* Draft Plan Appendix B at B -49. (This policy is vague and unenforceable, improperly delegates feasibility findings to staff, and provides no criteria or performance standard for determining feasibility.)
- Program AG-K: *reduce the amount of water that needs to be treated, pumped and conveyed, which requires the use of energy”* Draft Plan at 4.8-41. (This policy is vague and unenforceable as it provides no guidance as to

quantities that could be treated, specific treatment methods, or other information on how the County would implement this program.)

Related Implementation Program K: Water-Saving Irrigation Techniques Program is equally unenforceable as it directs the County only to collaborate with and support the UC Cooperative Extension Office educational programs and does not require the agency to take any specific action.

- COS-M Oil and Gas Tax: *The County shall evaluate the feasibility of establishing a local tax on oil and gas operations located in the unincorporated county.* Draft Plan Appendix B at B53. (This policy is vague, unenforceable and voluntary as it does not commit the County to taking any concrete steps toward implementing a tax beyond evaluating its feasibility. The policy should be revised to state “The County shall, by January 1, 2022, evaluate the feasibility of establishing a local tax on oil and gas operations located in the unincorporated county, and if the County determines any such tax is feasible, it shall, by January 1, 2023, develop and propose such a tax measure for voter approval.”)
- HAZ-10.1: Air Pollutant Reduction Consistent with the General Plan: The County shall strive to reduce air pollutants from stationary and mobile sources to protect human health and welfare, focusing efforts on shifting patterns and practices that contribute to the areas with the highest pollution exposures and health impacts. Draft Plan Appendix B at B59. (This policy is optional and unenforceable; the words “achieve substantial reductions of” should replace “strive to reduce.”)

A general plan’s goals and policies are frequently somewhat vague and aspirational. However, the County may rely on such policies to mitigate environmental impacts under CEQA *only if* they represent firm, enforceable commitments. *See Napa Citizens for Honest Gov. v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 358 (citing *Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351, 377). CEQA requires that mitigation measures actually be implemented—not merely adopted and then disregarded. *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1186-87; *Federation of Hillside & Canyon Assns. v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261.

Here, the proposed Plan’s vague and noncommittal policies and programs (and policies for which no implementation programs are identified) do not enforceably commit

the County to specific actions and thus fail to mitigate impacts. Moreover, DEIR proposed Mitigation Measure GHG-4 (New Implementation Program HAZ-X: Greenhouse Gas Reduction Policy Enhancement) fails to remedy the aforementioned failures. Mitigation Measure GHG-4 directs the Climate Emergency Council, to be established under Policy COS-CC, to develop subprograms that “may” include expansions to programs in the General Plan. DEIR at 4.8-47. Aside from the fact that the measure itself indicates that expansion of emission reduction programs is uncertain through use of the word “may,” this mitigation measure again defers identification of feasible, effective measures needed to reduce significant impacts. As discussed above, this approach is unlawful. CEQA Guidelines, §§ 15126.4(a)(1)(B).

Because the DEIR cannot ensure that the referenced policies will in fact be implemented to mitigate the proposed Plan’s impacts, and because the proposed mitigation further defers identification of mitigation, the policies and measures cannot serve as CEQA mitigation. *See Anderson First*, 130 Cal.App.4th at 1186-87.

C. The DEIR Has An Obligation to Consider Additional General Plan Policies That Would Mitigate the Significant Environmental Effects of Oil and Gas Development.

As indicated in our earlier comments, CFROG is concerned about the effects of oil and gas drilling on communities within the County and more broadly. The drilling and maintenance of oil and gas wells contribute to: local air pollution, climate change, contamination of water supplies, and risks to public health and safety. To this end, the County General Plan should do more to ensure protection of the County’s natural resources and to preserve quality of life for all the County’s residents.

1. Land Use Element

a. Climate and Public Health Alternative: Prohibit New Oil and Gas Development

Continued and expanded oil and gas production runs counter to the state’s 2030 and 2050 GHG reduction goals. *See* Health & Safety Code §§ 38550, 38566; Executive Order S-3-05. Expanded production also runs directly counter to state efforts to reduce both demand and supply of fossil fuels and to achieve carbon neutrality by 2045. Accordingly, in its comments on the Preliminary Draft Plan, CFROG recommended policies that would prohibit new oil and gas development in the County. *See* June 5, 2019 Comments at 3-5.

As those policies were not evaluated in the DEIR, CFROG once again proposes that the following new policies³ be added to the General Plan Land Use Element as mitigation measures and/or as part of a “Climate and Public Health Alternative” that would reduce the significant impacts of oil and gas development:

Policy LU-xx Prohibition of New Oil and Gas Extraction. The development, construction, installation, or use of any new facility, appurtenance, or above-ground equipment, whether temporary or permanent, mobile or fixed, accessory or principal, for petroleum extraction is prohibited on all lands within the County’s unincorporated area as a reasonable means of reducing greenhouse gas emissions and protecting the health and welfare of residents consistent with federal and state law.

Existing oil and gas operations would become nonconforming uses under this policy. Those uses, in turn, should be phased out according to a schedule that acknowledges vested rights and constitutional limitations while simultaneously supporting statewide efforts to reduce both supply and demand of fossil fuels. CFROG thus recommends that the following policies and implementation program be added to the General Plan, again either as mitigation measures or as part of an alternative that would reduce significant environmental impacts:

Policy LU-xx Existing Oil and Gas Facilities. Oil and gas extraction land uses lawfully existing on *[the effective date of the General Plan Update]* may continue as nonconforming uses to the extent allowed under State and local law until they are phased out pursuant to Policy LU-xx. Such uses, while they are continuing, shall not be enlarged, increased, extended, or otherwise expanded or intensified.

Policy LU-xx Phase-Out of Nonconforming Oil and Gas Operations. Nonconforming oil and gas extraction land uses shall be terminated within the shortest period of time necessary to ensure recovery of capital investments and compliance with constitutional limitations.

Implementation Program LU-X: To implement Policies LU-xx, xx, and xx [Prohibition, Existing Facilities, and Phase-Out], on or before January 1, 2022, the County shall develop and propose for adoption an ordinance providing for amortization of non-conforming oil and gas land uses, notice and hearing requirements, and any other provisions necessary to phase out such uses in a manner consistent with state and federal

³ The policies proposed in this letter are substantively equivalent to the policies proposed in CFROG’s June 5, 2019 Comments, although the specific wording of some proposals has been revised.

law. The ordinance shall contain provisions sufficient to ensure that all non-conforming oil and gas uses will be discontinued no later than 2045 unless discontinuance is expressly prohibited or precluded by state or federal law.

b. Discretionary Review and Permitting

In the absence of a complete prohibition on new wells, the County should require all new oil wells and proposed expansions at existing facilities to obtain discretionary permits. As discussed in our prior comments, under current Ventura County policies and practices, the vast majority of oil and gas development in the County is not subject to local CEQA review or conformance with current County policies and regulations. This is because the County requires only a zoning clearance for any additional oil wells drilled within the extensive areas covered by antiquated special use permits. Under current County practices, these zoning clearances are considered to be ministerial and thus do not trigger CEQA's environmental review and mitigation requirements. We also understand that the County has not been requiring compliance with updated regulations for these clearances.

CFROG appreciates that the Board of Supervisors recently directed County staff to prepare an ordinance requiring discretionary review of new and expanded oil and gas operations at facilities subject to antiquated special use permits. However, CFROG strongly believes that a policy requiring such review should be included in the General Plan.

The Draft Plan includes policies requiring new or modified *discretionary* oil and gas development to comply with current policies, standards, and conditions (Policy COS-7.3) and for new discretionary oil and gas development to use electrically-powered equipment (Policy COS-7.4) and to restore and revegetate the site after production (Policy COS-7.5). However, these policies apply only if a Project is subject to issuance of a discretionary permit. Because the Draft Plan does not require discretionary review for all new and expanded oil and gas operations, the Draft Plan and its DEIR fail to ensure that such operations will comply with new policies and programs to reduce GHG emissions, as well as address other impacts.

CFROG proposes the following policies to ensure that any new or expanded wells undergo discretionary review.

Policy LU-xx Renewal of Oil and Gas Facility Permits. All applications for renewal of oil and gas facility permits shall undergo discretionary review and shall be subject to updated air emissions requirements and other standards and conditions related

to oil and gas operations. Terms of renewed permits shall be limited in duration to the reasonably expected life of the wells.

Policy LU-xx Expansion of Existing Oil and Gas Operations. Proposed changes to or expansions of existing oil and gas sites, facilities, or activities shall undergo discretionary review to ensure compliance with updated regulations and appropriate environmental review pursuant to the California Environmental Quality Act.

Policy LU-xx Discretionary Review of All New Wells. Discretionary review shall be required for the drilling or construction of any new well, and for the re-drilling or deepening of any existing well, unless any such drilling, construction, re-drilling, or deepening is specifically identified by location and number or specifically authorized in an active discretionary permit. Policy LU-xx Inspection and Monitoring of Oil and Gas Facilities. Approved expansions of existing oil and gas operations shall be conditioned to require monitoring through installation of continuous emission monitoring systems (CEMS) for air quality emissions and continuous effluent quality monitoring system (CEQMS) for water pollution to detect emissions and plumes in real time.

These proposed policies are intended not only to support adoption of the ordinance that the Board of Supervisors directed staff to develop in September 2019, but also to reinforce existing County Code provisions requiring new oil and gas development to be authorized by a discretionary conditional use permit. *See* Non-Coastal Zoning Ordinance [“NCZO”], §§ 8105-4 and 8105-5, “Mineral Resource Development,” and “Oil and Gas Exploration and Production”; Coastal Zoning Ordinance [“CZO”], § 8174-5, under heading “Oil and Gas: Exploration and Production”). Similarly, these policies would support County Code provisions requiring discretionary approval in through permit modification for any material change to an existing permit. *See* NCZO, § 8111-6.1; CZO, § 8181-10.4.) These policies would reduce the overall impacts of oil and gas development by ensuring discretionary review, and site-specific mitigation and monitoring following CEQA review.

Likewise, we propose the following General Plan policy to address oil and gas facility operations and expansions under Antiquated Conditional Use Permits.

Policy LU-xx Oil and Gas Facilities Operating with Antiquated Conditional Use Permits. All oil and gas exploration and production operations, including legally existing operations lacking discretionary permits under the County Zoning Ordinance, are automatically subject to all requirements of the County Zoning Ordinance, General Plan, and other local regulations and standards relating to oil and gas exploration, extraction,

and production, except to the extent that application of such regulations or standards would impair a vested right under state law.

This policy is feasible as evidenced by County Counsel's position⁴ regarding the feasibility of amending the County Code to include a provision requiring antiquated conditional use permits to be and consistent with the Board's direction to staff to update the County Code accordingly. Letter Report from County Counsel, Leroy Smith, to the County Board of Supervisors dated September 10, 2019, at 4, attached as Exhibit 13.

Finally, CFROG previously proposed a policy that would prohibit extreme extraction methods like well stimulation treatments (including fracking) and cyclic steaming for tar sands production. June 5, 2019 Comments at 6. The DEIR did not evaluate this proposed policy. This policy should be evaluated as a mitigation measure for air quality, greenhouse gases, toxic and seismic hazards, and water quality and supply, all of which are adversely affected by extreme extraction.

Policy LU-xx Prohibit Extreme Extraction. The development, construction, installation, or use of any facility, appurtenance, or above-ground equipment, whether temporary or permanent, mobile or fixed, accessory or principal, for well stimulation treatments, cyclic steaming, and steam flooding are prohibited on all lands within the County's unincorporated area.

2. Conservation and Open Space Element

a. Oil and Gas Resources

The Conservation and Open Space Element's proposed policies related to oil and gas resources are also lacking specificity and enforceability. CFROG proposes the revisions to the following proposed General Plan policies:

COS-7.5 Restoration and Revegetation of Sites Used for Oil and Gas Exploration, Extraction, and Production. The County shall require that discretionary development for oil and gas exploration activities and all existing oil and gas development undergoing permit review be conditioned to require the restoration and revegetation of the site if the exploration does not result in oil and gas production facilities or when production activities are terminated.

⁴ "The County has a good legal argument that it can, in general, require newly proposed oil and gas development under antiquated permits to obtain authorization through a discretionary permit modification." See Exhibit 13, at 4.

COS-7.6 Abandoned Oil and Gas Well Identification. The County shall evaluate discretionary development to identify any abandoned oil and gas wells ~~on the project site~~ on all oil and gas operation sites.

In addition, CFROG proposes the following new policies be added to the Conservation and Open Space Element:

Policy COS-xx Nonconforming Oil and Gas Operations. The County shall actively work to discontinue nonconforming oil and gas extraction uses.

Policy COS-xx Review of Existing Permits. The County shall review all oil and gas permits that are 10 years or older to ensure that they are compliant with current standards and regulations to the maximum extent permitted by law.

Policy COS-xx Abandoned Oil and Gas Well Remediation. To prevent contamination of groundwater and leaks to the surface, the County shall require all abandoned oil and gas wells to be cleared of all equipment, plugged, capped and fully remediated in accordance with State and federal requirements within 60 days of ceasing operations.

Policy COS-xx Reuse of Abandoned Oil Fields. The County shall require the reclamation of abandoned oil fields to productive second uses.

Policy COS-xx Off-shore Oil Drilling. The County shall oppose any proposals for new or expanded off-shore oil drilling in the vicinity of Ventura County.

b. Energy Resource Conservation

CFROG recommends the following revisions to the proposed Energy Resource Conservation Policies:

Policy COS-8.1 Reduce Reliance on Fossil Fuels. The County shall promote the development and use of renewable energy resources (e.g., solar, thermal, wind, tidal, bioenergy, hydroelectricity) to reduce dependency on petroleum-based energy sources by developing and implementing incentives for alternative energy development and use.

Policy COS-8.7 Sustainable Building Practices. The County shall ~~promote~~ establish and require sustainable building practices that incorporate a “whole systems”

approach for design and construction that consumes less energy, water, and other nonrenewable resources, such as by facilitating passive ventilation and effective use of daylight.

Policy COS-8.8 Renewable Energy Features in Discretionary Development. The County shall ~~encourage~~ require the integration of features that support the generation, transmission, efficient use, and storage of renewable energy sources in discretionary development.

Policy COS-8.9 Urban Tree Canopy Improvements for Energy Conservation. The County shall ~~encourage~~ require all discretionary development to include the planting of shade trees on each property and within parking areas to reduce radiation heat production.

In addition, CFROG proposes that the County add the following new policies related to energy resource conservation to further reduce GHG emissions:

Policy COS-xx Carbon-free Economy. The County will prioritize and facilitate a rapid transition to a carbon-free economy countywide.

Policy COS-xx Non-fossil Fuels for County Facilities and Fleets. The County will actively pursue a rapid transition to a diversity of non-fossil fuel alternatives for all County facilities and vehicle fleets.

Policy COS-xx Non-fossil Fuels Manufacturing and Distribution. The County will actively pursue, through the development of incentives and streamlined permit review, increasing a diversity of renewable energy manufacturing and distribution facilities countywide.

3. Hazards and Safety Element

The Draft Plan's Hazards and Public Safety element recognizes the threats being faced by the County, particularly climate change and seismic activity. Unfortunately, as CFROG pointed out in prior comments, the measures outlined in the Draft Plan are insufficient to protect County residents from these inevitable hazards and other adverse effects of oil and gas activity.

a. Protection from Seismic Hazards.

The Draft Plan fails to provide adequate protection from identified hazards related to oil and gas pipelines. Specifically, Policy HAZ-4.2 requires oil and gas pipelines to avoid intersecting active faults to the extent possible. However, the policy includes no specific measures for pipelines that must cross a fault line to address steps that must be taken to prevent spills from ruptured lines. CFROG suggests additional policies for the County to consider that would address this omission:

Policy HAZ-xx Safety Standards for Cross Fault Line Pipelines. Gas or crude oil transmission and distribution pipelines which cross active or potentially active fault lines shall be subject to additional safety standards, including emergency shutoff capabilities.

Similarly, in proposed Policy HAZ-4.8, the County attempts to prohibit hazardous material storage facilities within areas prone to severe ground shaking. Yet, there is no mention of the detrimental effects of “fracking” or the injection of wastewater into underground geological formations for storage and disposal. Numerous studies have linked fracking to increased seismic activity. In a county crisscrossed by numerous active and potentially active faults, it is only reasonable for the County to consider the effects of fracking on increasing the likelihood of seismic events and the potential dangers associated with this method of resource extraction.

Additionally, the injection of wastewater into underground formations is also linked to increased seismic events, which could trigger a leak within the formation, which in turn may endanger the groundwater quality in the County. *See*, <https://www.usgs.gov/faqs/does-production-natural-gas-shales-cause-earthquakes-if-so-how-are-earthquakes-related-these> ; “The 2013–2016 induced earthquakes in Harper and Sumner Counties, southern Kansas,” Bulletin of the Seismological Society of America. Justin L. Rubinstein, William L. Ellsworth, and Sara L. Dougherty, available at <https://pubs.er.usgs.gov/publication/70195671> , abstract attached as Exhibit 14; *see also* “Studies link earthquakes to fracking in the Central and Eastern US,” Seismological Society of America, ScienceDaily April 26, 2019, available at <https://www.sciencedaily.com/releases/2019/04/190426110601.htm> , attached as Exhibit 15. Thus, we recommend the County add a policy requiring any fracking or wastewater disposal project to study the potential impacts of triggering seismic events and the impacts if a seismic event does occur. Such activities should not be allowed without a thorough understanding of the potential consequences and with plans in place to limit those negative consequences. To this extent, CFROG suggests adding a new policy to ensure that all injection into subsurface formations is done with a substantial understanding of the potential effects.

Policy HAZ-xx Seismic and Geotechnical Studies for Well Injection. Require that applicant provide additional seismic and other geotechnical studies which demonstrate that there will be no increased risk of earthquakes, subsidence or related geologic issues resulting from extraction, drilling or injection activities, when within a fault zone.

b. Compliance with Local, State, and Federal Regulations and Standards.

Proposed Policy HAZ-7.1 requires all discretionary permits for proposed oil and gas exploration and production projects to comply with local, state, and federal oil spill prevention regulations. This is insufficient. The County must do more to ensure its residents are safe and the environment protected from oil and gas exploration and production projects. As mentioned above, the County must include specific and quantifiable mitigation measures for existing development as well. While the policy contemplates compliance with local standards, the County does not have any standards in place to supplement federal and state regulations to address the specific problems being faced in Ventura County.

Additionally, state and federal regulations have changed and been updated. If a conditional use permit has been issued more than five years ago, the County should require inspection and enforcement of the existing conditions and evaluation if imposing new conditions would significantly improve the safety of such projects. Permits for operations involving hazardous substances also should be subject to discretionary renewal. To that end, CFROG suggests the County include the following policies in the draft plan:

Policy HAZ-xx Maintain Compliance with Local, State, and Federal Oil Spill Prevention Regulations. Review all oil exploration and production development which has been approved more than five (5) years prior to the effective date of this General Plan for consistency with applicable local, state, and federal oil spill prevention regulations. Establish mitigation activities as needed to maintain the standards and conditions required when the permit was issued.

Policy HAZ-xx Review of Permits Involving Hazardous Materials. Permits for any oil exploration and production projects, and associated production facilities, involving the transport or use of hazardous materials must be effective for no longer than five years, and must be reviewed and either renewed, further conditioned, or denied prior to expiration.

c. Increased Bonding Requirements to Ensure Proper Plugging and Abandonment, and Remediation of Oil Production and Exploration Sites.

Based on the wide array of impacts associated with oil and gas development, CFROG suggests that the County increase the bonding requirement to cover potential negative consequences from spills, failure to properly plug and abandon wells, and failure to properly remediate and restore the well site to other beneficial uses. The increased bonding requirement should be linked to proper plugging and abandonment after extraction has been finished. The oil and gas producers should plug the well and implement an abandonment plan. Such plans should be required prior to approval of the discretionary development and must be followed in the event that the well is deemed inactive. Additionally, the Hazards element fails to address the potential dangers associated with improperly abandoned wells. This omission creates a risk of leaks and spills that could harm County residents that may encounter an abandoned oil and gas well unknowingly. CFROG suggests the draft General Plan include a new policy to increase the bonding requirement as a condition of approval to ensure proper plugging, abandonment, and remediation of oil and gas production and exploration sites.

Policy HAZ-xx Increased Bonding Requirement and Remediation Plans. Enforce decommissioning and abandonment standards for oil extraction and exploration projects as a condition of approval. Require applicants to include a cost estimate for decommissioning and site restoration work following the cessation of extraction activities, and to post a bond for the estimated amount. Conduct an inspection after decommissioning and site restoration to ensure that all remediation activities have been satisfactorily completed. Require operators to dismantle all structures that cannot be effectively reused, and to recycle all materials as much as possible. Require that all hazardous waste, including electronics or toxic materials, is disposed of in accordance with applicable health and environmental safety standards.

d. Inspection and Enforcement of Existing CUP Conditions.

With technological advances and changes to state and federal oil and gas exploration and production regulations, the County should prioritize inspection and enforcement of the conditions of approval for existing oil and gas exploration and production sites. This is particularly true with respect to safety and oil spill prevention measures. To this effect, CFROG suggests including a new policy to inspect oil pipelines and enforce existing CUP conditions.

Policy HAZ-xx Annual Inspection and Enforcement of Existing CUP Conditions. Require annual inspections and enforcement of CUP conditions, including ensuring the most up to date spill prevention and safety technology.

e. Real-Time Detection and Monitoring of Emissions and Plumes.

CFROG suggests the County add a policy to the Draft Plan to require monitoring of oil and gas exploration and production sites, including the pipelines used to convey the oil and gas, through the use of cameras or other technology to detect emissions and plumes in real time:

Policy HAZ-xx Inspection and Monitoring of Oil and Gas Facilities. New discretionary oil and gas development and any proposed expansion of or changes to existing oil and gas operations shall be conditioned to require monitoring through installation of continuous emission monitoring systems (CEMS) for air quality emissions and continuous effluent quality monitoring system (CEQMS) for water pollution, or equivalent monitoring measures (including but not limited to thermal imaging cameras) capable of detecting and recording emissions and plumes in real time.

f. Pipeline Inventory and Maintenance Records.

The Draft Plan indicates that oil and gas transport lines have been mapped on the County's GIS. Draft Plan at 7-21. In addition to mapping these facilities, however, the County should also keep accurate records of maintenance and control technology for these pipelines. It is important to track the age of the pipelines and the technology installed on these pipelines to prevent spills from ruptures. By having this information at hand, the County will have the tools to prioritize specific pipelines for maintenance, and in a seismic event, the ability to identify the pipelines requiring immediate attention. Also, if one pipeline fails, by comparing the age and technology on the pipeline, the County can identify those other pipelines in similar conditions that will need to be replaced prior to another failure. CFROG suggests the addition of a new policy to require oil and gas producers to furnish the County with the relevant records on the maintenance and technology installed on those pipelines.

Policy HAZ-xx (Pipeline Inventory and Maintenance Records). Require all oil and gas producers with active pipelines to furnish the County with accurate and up to date maintenance and safety technology records.

IV. The DEIR's Proposed Buffer Requirements For Oil and Gas Operations Are Insufficient to Protect Public Health.

The Draft Plan proposes setbacks from oil and gas operations to protect sensitive receptors from toxic pollutants. Draft Plan at 6-12. Proposed General Plan policy COS-7.2: Oil Well Distance Criteria would require new discretionary oil wells to be located 1,500 from residences and 2,500 feet from schools. DEIR Mitigation Measure PR-1 proposes revisions to this policy to limit the buffer to 1,500 feet from all sensitive receptors. DEIR at 2-40 and 4.12-18. The GPU DEIR indicates that there are currently 23 active and idle oil wells within 2,500 feet of schools and 715 active wells within 1,500 feet of homes in the County. DEIR at 4.12-14.

A number of recent studies and literature reviews have discussed impacts from oil and gas development, including emissions of criteria and toxic air pollutants, water pollution, noise, light, and biological hazards like Valley Fever.⁵ Many of these studies provide a foundation supporting the establishment of setbacks and for imposing setbacks of at least 2,500 feet from oil and gas operations.

For example, a literature review conducted by Nicole J. Wong, MPH, suggests that far greater setback distances are necessary to protect against adverse health outcomes,

⁵ In addition to the studies discussed in detail below, numerous studies and literature reviews have detailed harm from fracking and other forms of oil and gas development. *See, e.g.*, Concerned Health Professionals of NY and Physicians for Social Responsibility, *Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)* (6th ed. June 2019), attached as Exhibit 16; Kristina Marusic, *After a decade of research, here's what scientists know about the health impacts of fracking*, Environmental Health News (April 15, 2019), available at <https://www.ehn.org/health-impacts-of-fracking-2634432607.html> (visited Feb. 25, 2020). Notably, although these studies focused on the health effects of fracking, a comprehensive review of well stimulation techniques (including fracking) by the California Council on Science and Technology ("CCST") concluded that "[a]ll forms of oil and gas development, not just that enabled by well stimulation, may cause similar public health risks." Seth D. C. Shonkoff, et al., *Chapter Six: Potential Impacts of well Stimulation on Human Health in California*, in Jane C. S. Long, et al., California Council on Science and Technology, *An Independent Scientific Assessment of Well Stimulation in California, Volume II: Potential Environmental Impacts of Hydraulic Fracturing and Acid Stimulations at 375* (updated July 2016), available at <https://ccst.us/wp-content/uploads/160708-sb4-vol-II-6-1.pdf> (visited Feb. 25, 2020).

particularly from exposure to air pollutants.⁶ Based on studies showing adverse health effects from air and water pollution at distances well over one-half mile, Ms. Wong concluded that “a 2,500-foot setback recommendation is on the *lower end* of the range of distances where research has determined harmful health and quality of life impacts of toxic emissions and exposures.”⁷

In another example, a study⁸ considered the minimum distance that might be required in case of a blow-out or explosion event by investigating historical evacuation data. This study determined that the average evacuation zone for such incidences is 0.8 miles, or 4,224 feet.⁹ In addition, the Environmental Health Project (EHP), a public health organization consisting of a consortium of experts in environmental studies and public health, agreed that 1.0 to 1.25-mile distance (6,600 feet) from unconventional oil and gas development (i.e., fracking) is an acceptable minimum to protect human health. Additionally, the study recommends greater setback distances for settings where vulnerable subpopulations might gather, such as schools, day care centers, and hospitals.

In sum, these recent reviews, and the numerous scientific studies considered therein, provide scientific and factual support for development of setbacks in excess of 2,500 feet. An setback of at least 2,500 feet is necessary to protect the health and safety of County residents.

Mitigation Measure PR-1 properly expands the list of “sensitive use structures” to which Policy COS-7.2 would apply. DEIR at 4.12-18. However, the measure would reduce the buffer distance from schools from 2,500 feet to 1,500 feet. As discussed above, ample scientific information indicates that a 1,500-foot buffer is likely insufficient to protect public health and safety.

⁶ Nicole J. Wong, MPH, *Existing Scientific Literature on Setback Distances from Oil and Gas Development Sites* (version 2, Nov. 2017), available at <http://www.stand.la/research--reports.html>, attached as Exhibit 17.

⁷ *Id.* at 1; see also *id.* at 6 (Table 1) (comparing distances at which several studies documented potential adverse health outcomes with 2,500-foot proposed setback distance) (emphasis added).

⁸ Haley, M., McCawley, M., Epstein, A. C., Arrington, B., & Bjerke, E. F. (2016). *Adequacy of current state setbacks for directional high-volume hydraulic fracturing in the Marcellus, Barnett, and Niobrara Shale Plays*. ENVIRONMENTAL HEALTH PERSPECTIVES, 124(9), 1323, available at <https://ehp.niehs.nih.gov/doi/full/10.1289/ehp.1510547>

⁹ *Id.* at 3.

In particular, reducing the proposed buffer distance from schools as proposed in Mitigation Measure PR-1 would be both unsupported and unwise. Children are often outdoors at schools, daycare centers, and recreation facilities, where they can be exposed to significant hazards. For example, on March 6, 2006, a small earthquake caused a break in an idle well bore in Upper Ojai, causing oily brine to flow to the surface for months. *See* DOGGR, 2006 Annual Report of the State Oil & Gas Supervisor at 26 (2007), excerpt attached as Exhibit 18; *see also* The Next Big One, VC Reporter (Aug. 22, 2013), at <https://vcreporter.com/2013/08/the-next-big-one/> (visited Feb. 25, 2020); Jhon Arbelaez, Shaye Wolf, and Andrew Grinberg, On Shaky Ground: Fracking, Acidizing, and Increased Earthquake Risk in California at 13 (March 2014), attached as Exhibit 19. Drilling near schools and daycares could expose many more children to similar (or far worse) hazards. Therefore, CFROG respectfully requests that the County revise Policy COS-7.2 to require a minimum setback distance of 2,500 feet from *all* sensitive receptors, including schools, daycares, residences, and medical facilities.

Finally, Policy COS-7.2 would apply only to “new discretionary oil and gas wells.” DEIR at 4.12-18; Draft Plan at 6-12.¹⁰ The proposed policy thus leaves numerous residents with no protection from existing oil and gas wells. *See* DEIR at 4.12-16 (Figure 4.12-2). Although CFROG recognizes that some of these existing wells may be subject to vested rights, existing operations should nonetheless be amortized and phased out as soon as legally possible.

Accordingly, the County should evaluate an additional mitigation measure consisting of the following policy and implementation program:

Policy COS-xx Phase-Out of Existing Oil and Gas Operations Near Sensitive Uses. Existing oil and gas exploration and production activities located closer than the minimum distance from sensitive use structures established by Policy COS-7.2 shall be terminated within the shortest period of time possible, consistent with protection of any vested rights and applicable constitutional limitations.

Implementation Program COS-X: To implement Policy COS-xx [Phase-Out], on or before January 1, 2023, the County shall develop and propose for adoption an ordinance providing for amortization of existing oil and gas exploration and production

¹⁰ As proposed in the Draft Plan, Policy COS-7.2 applies only to “oil wells,” while in the DEIR, the policy would apply to “oil and gas wells.” The policy clearly should apply to both oil and gas wells.

activities located closer than the minimum distance from sensitive use structures established by Policy COS-7.2, notice and hearing requirements, and any other provisions necessary to phase out such uses as quickly as possible in a manner consistent with state and federal law.

V. The DEIR Improperly Eliminated and Failed to Analyze Alternatives That Would Reduce or Avoid Significant Impacts.

The DEIR does not comply with the requirements of CEQA because it fails to undertake a legally sufficient study of alternatives to the Project. A proper analysis of alternatives is essential to comply with CEQA's mandate that, where feasible, significant environmental damage be avoided. Pub. Resources Code § 21002 (projects should not be approved if there are feasible alternatives that would substantially lessen environmental impacts); CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(f). The primary purpose of CEQA's alternatives requirement is to explore options that will reduce or avoid adverse impacts on the environment. *Watsonville Pilots Assn. v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1089. Therefore, the discussion of alternatives must focus on project alternatives that are capable of avoiding or substantially lessening the significant effects of the project, even if such alternatives would impede to some degree the attainment of the project objectives or would be more costly. CEQA Guidelines § 15126.6(b); *see also Watsonville Pilots*, 183 Cal.App.4th at 1089 (“[T]he key to the selection of the range of alternatives is to identify alternatives that meet most of the project's objectives but have a reduced level of environmental impacts”).

As a preliminary matter, the DEIR's failure to disclose the extent and severity of the Project's climate impacts necessarily distorts the document's analysis of Project alternatives. As a result, the alternatives are evaluated against an inaccurate representation of the Project's impacts. Proper identification and analysis of alternatives is impossible until Project impacts are fully disclosed. Moreover, as discussed above, the document's analysis is incomplete and/or inaccurate so that it is simply not possible to conduct a comparative evaluation of the Project's and the alternatives' impacts.

In any case, the DEIR improperly circumscribes its analysis of potential Project alternatives and makes no serious attempt to describe an alternative that avoids or substantially minimizes the climate impacts of the Project. Comments on the Notice of Preparation for the EIR, including comments from CFROG, urged the County to analyze alternatives that would reduce oil and gas production. CFROG also requested that the County add policies and programs that would achieve similar purposes in its comments on the Preliminary Draft Plan. See June 5, 2019 Comments at 3-5, 25-30.

The DEIR identifies three alternatives that would address climate impacts related to GHG emissions. These include: the Limit Active and Idle Wells and Reduce Oil Well Emissions Alternative, the Eliminate or Reduce Existing Oil and Gas Wells or Production Alternative, and the Carbon Neutrality Alternative. As discussed in more detail below, the DEIR, however, declined to evaluate any of these proposals as alternatives, and instead rejected them all as infeasible. The DEIR's refusal to evaluate these additional policies, either as alternatives or mitigation measures, was improper.

A. Alternatives That Would Reduce Oil and Gas Production Were Improperly Rejected.

The DEIR rejected alternatives that would limit oil and gas production on two grounds. First, the DEIR found such alternatives “focuse[d] on one specific land use and [did] not comprehensively address most of the basic project objectives.” DEIR at 6-9. Yet the DEIR does not identify a single project objective that would not be met by an alternative that provides a comprehensive plan for development in the County while simultaneously reducing reliance on oil and gas exploration and production. Such an alternative would still satisfy most if not all of the objectives listed in the DEIR. It would also avoid or substantially lessen significant impacts of oil and gas development. Nothing in CEQA contemplates or permits elimination of an alternative that meets most project objectives solely on the basis that it would reduce environmental impacts associated with a subset of land uses. And even if CEQA did preclude analysis of alternatives that primarily focus on a subset of land uses, the alternatives' provisions still could serve as mitigation measures for the significant effects of those land uses. Either way, the DEIR fails to justify its elimination of these provisions from detailed consideration.

Second, the DEIR claims eliminating or reducing existing oil and gas operations would “present legal and economic feasibility issues.” DEIR at 6-9. This claim, however, is entirely conclusory and lacks any supporting explanation or analysis. It is also wrong.

Reducing both new and existing oil and gas operations in the County is legally feasible. Nearly a century of case law confirms that local governments may determine where oil and gas operations occur, and may even prohibit such operations altogether. *See, e.g., Higgins v. Santa Monica* (1964) 62 Cal.2d 24; *Beverly Oil*, 40 Cal.2d 552; *Pacific Palisades Assn. v. City of Huntington Beach* (1925) 196 Cal. 211; *Hermosa Beach Stop Oil Coalition*, 86 Cal.App.4th 534; *Friel v. Los Angeles County* (1959) 172 Cal.App.2d 142. A 1976 opinion of the Attorney General (59 Ops. Cal. Atty. Gen. 461) suggested that while some local attempts to regulate the precise manner of oil and gas production might be preempted, local governments generally retain their traditional authority to control land use and protect public health; the Attorney General concluded in

this context that an ordinance completely prohibiting oil and gas development probably would *not* be preempted. *See id.* at 478, 484.

Moreover, although many existing oil and gas wells in the County may be subject to vested rights, the County may constitutionally require the elimination of vested nonconforming land uses provided owners and operators are given an opportunity to come into compliance during a reasonable amortization period commensurate with the investment involved. *National Advertising Co. v. County of Monterey* (1970) 1 Cal.3d 875, 879. California courts have long recognized amortization periods as valid means to balance the competing interests of a property owner's property rights and a local agency's need to implement zoning changes to benefit public health and welfare. *Gage*, 127 Cal.App.2d at 460; *see also United Bus. Com. v. City of San Diego* (1979) 91 Cal.App.3d 156, 180 (reasonable amortization period satisfies due process requirements); *Livingston Rock and Gravel Co. v. Los Angeles* (1954) 43 Cal.2d 121, 126-28. Other jurisdictions follow this exact approach; for example, the Los Angeles Planning and Zoning Code currently provides a 20-year amortization period for termination of nonconforming oil and gas operations. L.A. Municipal Code § 12.23(C)(4). The DEIR has not demonstrated that reduction or elimination of existing operations is legally infeasible, and thus fails to comply with CEQA as a matter of law. *See City of San Diego v. Board of Trustees of California State University* (2015) 61 Cal.4th 945, 956.

Finally, although the DEIR cites unspecified "economic infeasibility issues," it fails to provide any evidence or analysis to back up its conclusions. An EIR must contain facts and analysis, not just the "bare conclusions of a public agency." *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 736 (quoting *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.)

B. The DEIR Improperly Disclaims the County's Authority to Fight Climate Change.

The DEIR omits detailed consideration of a "carbon neutrality" alternative based primarily on the assumption that the County lacks the authority and the ability to undertake the fundamental changes necessary to avoid the very worst impacts of climate disruption. DEIR at 6-10 to 6-12. Nobody disputes that confronting the climate crisis will require daunting social and economic transformations. Yet this entire section of the DEIR effectively claims that solving the problem is too difficult, too expensive, and ultimately someone else's responsibility. Simply throwing up our hands and allowing the climate crisis to overtake our communities, however, should never be an option.

Nobody would argue that the County must create a carbon-free economy all on its own. The point, rather, is that prompt and decisive action at all levels of government will be necessary to achieve this goal. The DEIR recites a litany of necessary actions, but it makes no effort to distinguish which actions lie wholly or partially within the County's control. The fact that a "coordinated effort of multiple levels of government" may be needed (DEIR at 6-11) does not provide the County with an excuse to claim it has no responsibility to participate. Nor does the DEIR's weak complaint that taking actions within the County's control (such as improving public transit) "may have financial constraints" (*id.*) suffice to demonstrate that all such actions are infeasible. The California Supreme Court has twice rejected public agencies' attempts to disclaim their portion of responsibility for mitigation that required coordination among different agencies and levels of government based on unsupported claims of legal infeasibility. *See City of San Diego*, 61 Cal.4th 945; *City of Marina v. Board of Trustees of California State University* (2006) 39 Cal.4th 341.

A "carbon neutral" alternative would consist of actions the County could take in implementing its General Plan. The DEIR paints a caricature of such an alternative in order to reject it. Whatever the effort required, failure to work toward and achieve a carbon-free economy by mid-century will expose Ventura County to almost incalculable social and economic damage. The County cannot wait until 2040 or beyond for someone else to do the hard work. It has to start now, with a frank and serious look at alternatives that would commit the County to doing its fair share to avoid catastrophe.

VI. Conclusion

We appreciate your consideration of these comments. CFROG looks forward to continuing to work with the Planning Commission, Board of Supervisors, and County staff throughout the General Plan Update process.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



Kevin P. Bundy

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Attachments:

Exhibit 1 Washington Post, “California climate change: Fires, floods and a fight over free parking,” December 5, 2019

Exhibit 2 Stats.2019, ch. 23, Item 0555-001-3228 (Budget Act - Assembly Bill No. 74)

Exhibit 3 Carbon Neutrality Studies Scope of Work, Study 1

Exhibit 4 Carbon Neutrality Studies Scope of Work, Study 2

Exhibit 5 DOGGR 2017 (annual report)

Exhibit 6 Ventura County Air Pollution Control District, Part 70 Permit No. 00012, Section No. 2 at 1 (Table No.2) (May 14, 2019)

Exhibit 7 Bloomberg News, “NASA Flew Gas Detectors Above California, Found ‘Super Emitters’”, November 7, 2019

Exhibit 8 “A Third of California Methane Traced to a Few Super-Emitters,”
<https://climate.nasa.gov/news...>

Exhibit 9 Myhre, G., et al., 2013: Anthropogenic and Natural Radiative Forcing. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press

Exhibit 10 Ventura County Methane Plum Data

Exhibit 11 Carbon Energy Corporation Corporate Overview 2019

Exhibit 12 Ventura County Air Pollution Control District, Order Granting Interim Variance, Hearing Board Case No. 878

Exhibit 13 Letter Report from County Counsel, Leroy Smith, to the County Board of Supervisors

Exhibit 14 “The 2013–2016 induced earthquakes in Harper and Sumner Counties, southern Kansas” Bulletin of the Seismological Society of America. Justin L. Rubinstein, William L. Ellsworth, and Sara L. Dougherty [abstract]

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Exhibit 15 “Studies Link earthquakes to fracking in the Central and Eastern US,”
Seismological Society of America. Science Daily April 26, 2019

Exhibit 16 Concerned Health Professionals of NY and Physicians for Social
Responsibility, *Compendium of Scientific, Medical, and Media Findings Demonstrating
Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)* (6th ed. June
2019)

Exhibit 17 Nicole J. Wong, MPH, *Existing Scientific Literature on Setback Distances
from Oil and Gas Development Sites* (version 2, Nov. 2017)

Exhibit 18 DOGGR 2006 Annual Report of the State Oil & Gas Supervisor at 26 (2007)
[excerpt]

Exhibit 19 Jhon Arbelaez, Shaye Wolf, and Andrew Grinberg, *On Shaky Ground:
Fracking, Acidizing, and Increased Earthquake Risk in California* (March 2014)

cc: Climate First: Replacing Oil & Gas

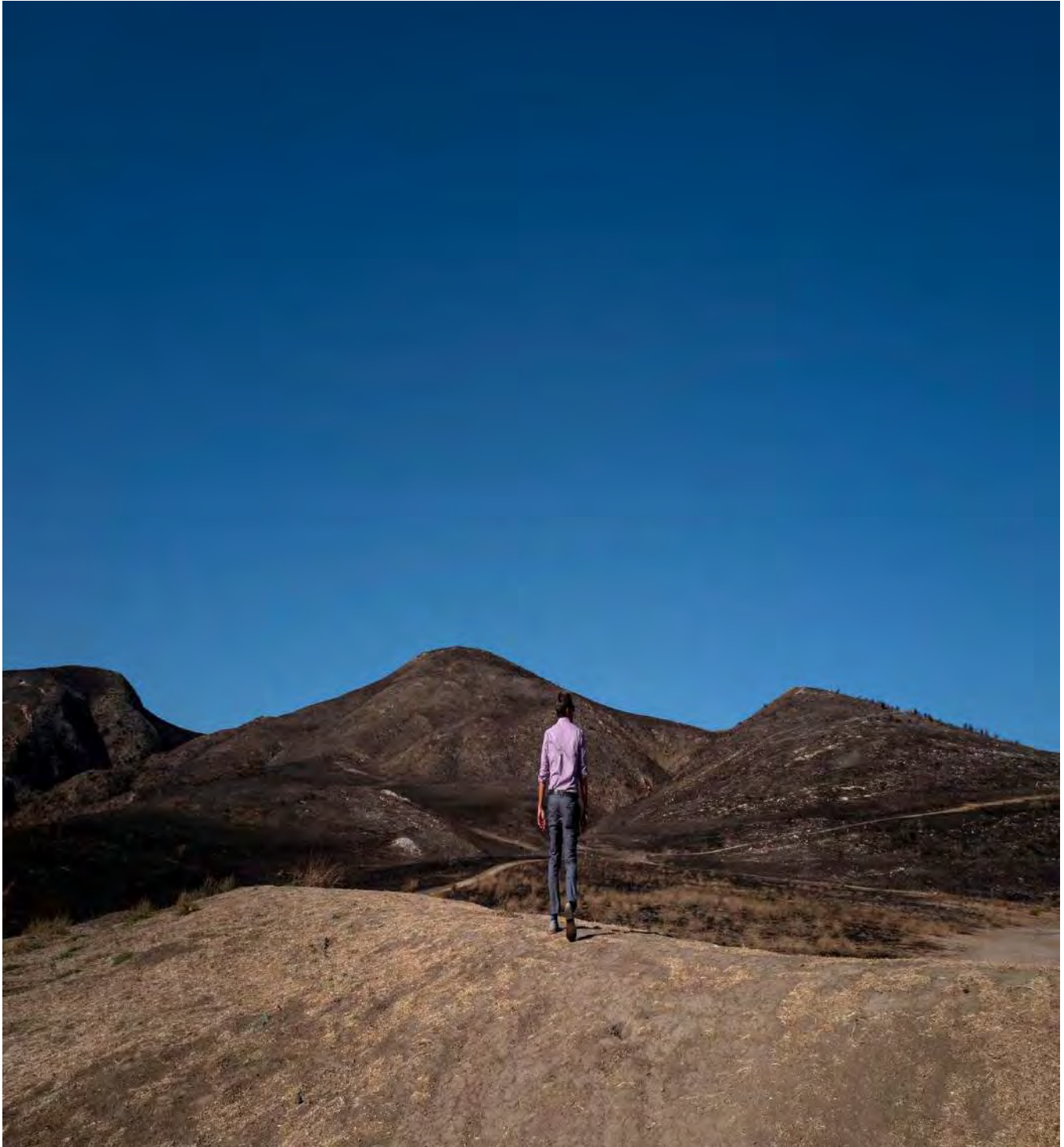
EXHIBIT 1

The Washington Post
**2°C: BEYOND
THE LIMIT**

°C ↔ °
F



2°C: Beyond the limit



**2°C: BEYOND
THE LIMIT**

By **Scott Wilson**
Photos by **Michael Robinson Chavez**
Graphics by **John Muyskens**

°C ↔ °
F



DEC. 5, 2019



SANTA BARBARA, Calif. — When the fire came this time, blowing in fast and ashy from the dry hills around her camping resort, manager Terri Bowman was ready.

The past few years had prepared her for what had once been unthinkable. First, the Sherpa Fire scorched the hills around the camp in June 2016. Then, unusually heavy rains sent a wall of mud through El Capitan Canyon in January 2017, washing two camp buildings and a car into the Pacific Ocean. The resort closed for four months.

Bowman spent \$250,000 shoring up the steep, loose hillsides of the canyon, which gives the resort its name. She also bought generators that she put to use in September, when Southern California Edison cut off power for a day to reduce the risk of fire.

Then, in late October, plumes of smoke from the Real Fire appeared above the canyon walls. Bowman and her staff hurried from cabin to yurt to cabin, telling guests to leave. They dialed cellphone numbers collected as part of an emergency evacuation plan at check-in. They guided cars and buses along a one-lane road toward the highway, including a class of first-graders forced to cancel a weekend retreat.

2°C: BEYOND THE LIMIT The only casualty was her bottom line.

°C ↔ °
F



“We just kind of shifted into action, we were so used to it,” said Bowman, resigned to the new realities in the canyon where she has done business for nearly two decades. “Relatively nothing happened here until 2016. Since then, it has been an annual event.”

Life in Southern California, once as mild and predictable as the weather, is being transformed as the climate grows hotter, drier and in some regions windier, fueling more intense wildfires, deadly mudslides and prolonged extreme drought.

The changing natural world is in turn forcing a fundamental social reckoning, altering the choice of crops on some of the nation’s most bountiful farms, erasing the certainty of electrical power in some of its wealthiest homes and exposing the limits of environmental activism among some of its most liberal voters.

The cradle of the Earth Day movement is confronting the consequences of a warming Earth.

The coastal curve that bends south from Santa Barbara through the Los Angeles metroplex to the arroyos along the Mexican border is warming at double the rate of the continental United States, according to a Washington Post analysis of more than a century of temperature data. And during the past five years, the pace has accelerated.



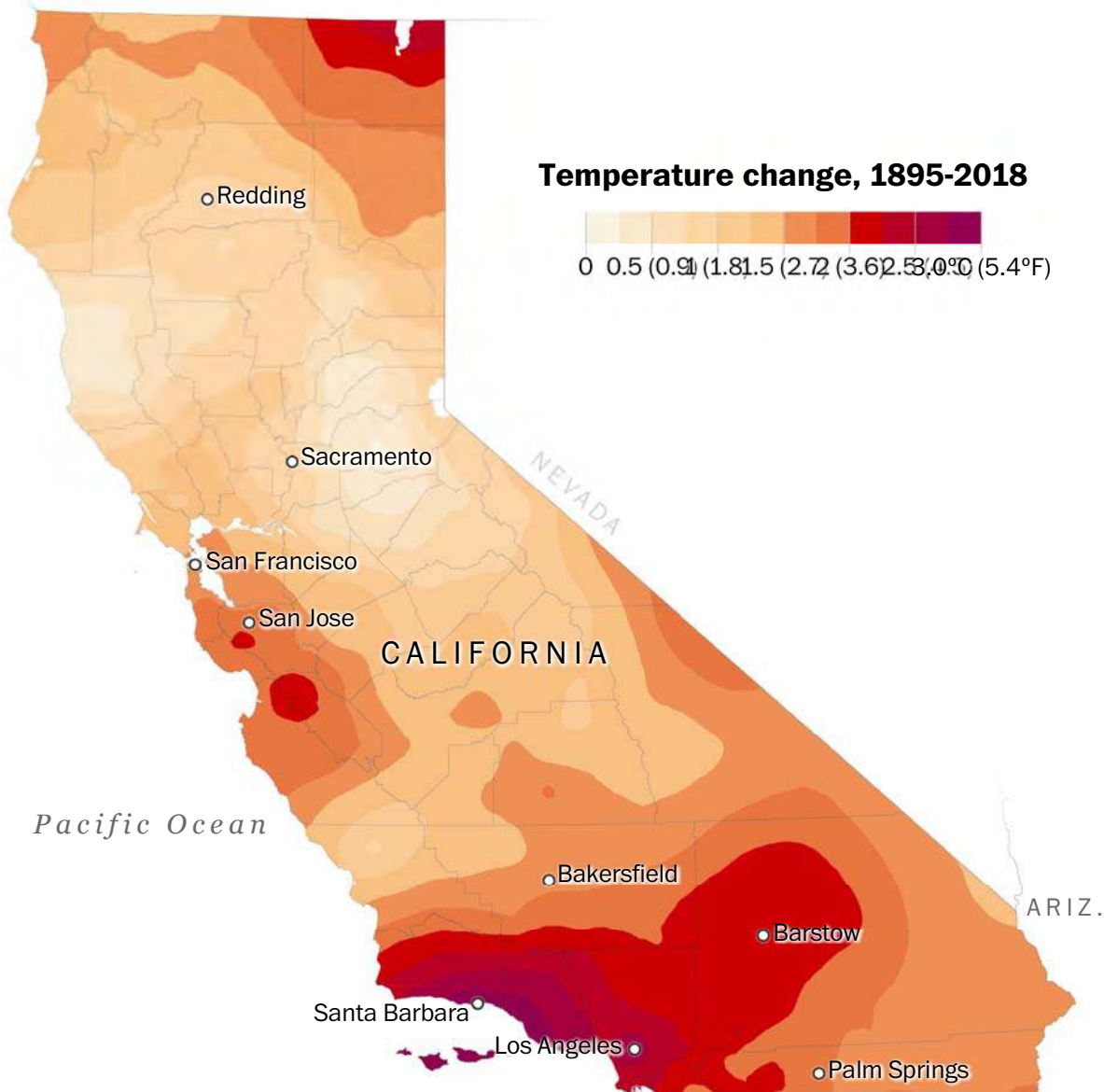
2°C: BEYOND

THE LIMIT *Click any temperature underlined in the story to convert between Celsius and Fahrenheit*

°C ↔ °



Since 1895, the average temperature in Santa Barbara County has warmed by 2.3 degrees Celsius (4.1 degrees Fahrenheit), according to The Post's analysis. Neighboring Ventura County has heated up even more rapidly. With an average temperature increase of 2.6 degrees Celsius (4.7 degrees Fahrenheit) since preindustrial times, Ventura ranks as the fastest-warming county in the Lower 48 states.



2°C: BEYOND THE LIMIT
100 MILES



Source: National Oceanic and Atmospheric Administration

Warming here already has exceeded the threshold set in the 2015 Paris climate accords, which President Barack Obama joined and the Trump administration has promised to leave. The agreement concluded that average warming worldwide should be held “well below” 2 degrees Celsius (3.6 degrees Fahrenheit) to avoid potentially catastrophic consequences — but it already has warmed by more than 1 degree Celsius (1.8 degrees Fahrenheit).

Across California, the growing heat and loss of moisture threatens the iconic coastal [redwood forests](#) and the Joshua trees of the southern desert. Bird populations have been ravaged by drought, with several once-prominent desert habitats losing 43 percent of their species in the past century, according to a [study published last year](#) in the Proceedings of the National Academy of Sciences.

Offshore, the warming ocean has depleted once-expansive kelp forests around the Channel Islands and has thrown oyster, crab and urchin harvests into disarray.

Thirteen [whales washed ashore](#) dead this year in the San Francisco Bay area, and when marine biologists went searching for answers, they found that many of them had empty stomachs.

CHOOSE A COUNTY



Annual temperature change, 1895-2018

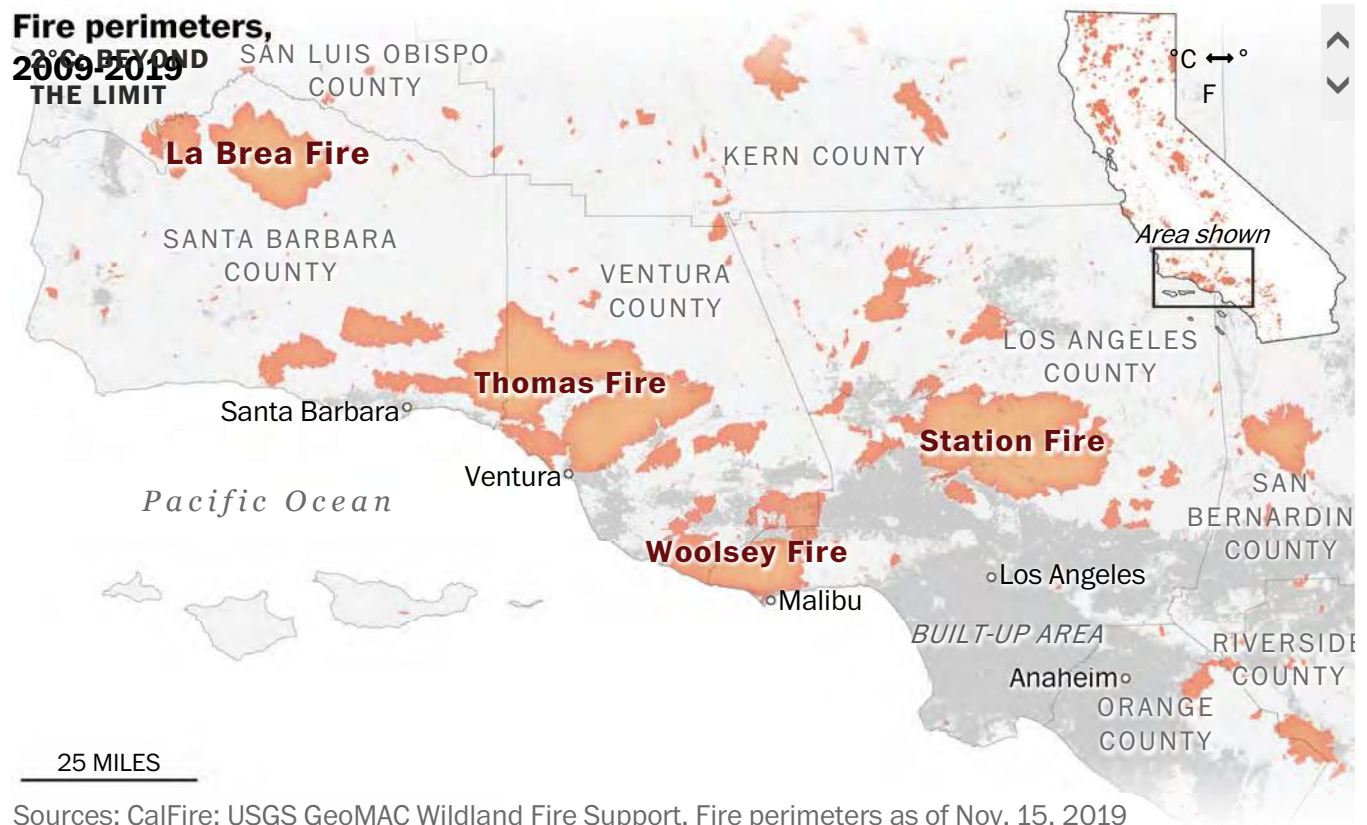
**2°C: BEYOND
THE LIMIT**°C ↔ °
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In Santa Barbara County, the dangers of this grave new world came into focus with the Thomas Fire in 2017. The blaze started in early December, late by traditional standards and a sign that the fire season is now effectively year-round. It was the largest in state history at the time, burning more than 281,000 acres.

Residents were forced to evacuate at the height of the holiday season in the wealthy, woodsy suburb of Montecito. Many were just getting back home when a severe storm forecast prompted a second evacuation order. Tired of living in hotels or crashing with friends, many people ignored it.

Stripped by fire, soaked by rain, the steep hillsides above town collapsed in the predawn hours of Jan. 9, 2018. The torrent of earth killed 23 people, carrying some out of their houses and all the way to the sea.

The twin disasters caused more than \$2 billion in damage and focused attention on the shifting climate.



“Before the fire and flood, people here thought of climate change in similar ways as they thought of the refugee crisis in other parts of the world — something important but remote,” said Santa Barbara County Supervisor Das Williams, whose district was hit hard by the fire and its aftermath. “Now, I’m confronted with the fact we had a mass casualty event that was climate enhanced.”

The possible remedies are improvisational — and, so far, largely ineffective.

Despite Santa Barbara’s heritage as the birthplace of the modern environmental movement, the county is falling far short of its own anti-pollution goals, which are meant to serve as a model for others to follow. The failure has activists here wondering: If a place with Santa Barbara’s predominantly green electorate and political class is unwilling or unable to change, who will?

2°C: BEYOND THE LIMIT This is a tourist town, a weekend resort for the Los Angeles wealthy, a place that has become shorthand for getaway glamour thanks to a once-popular daytime soap opera named for it. Several years ago, the county adopted goals consistent with California's overall target to cut the greenhouse gas emissions that cause global warming to zero over the next 25 years.

But the government here has bumped up against local business interests, from downtown retailers and restaurants to the oil industry, that oppose more environmental regulation and even such seemingly minor changes to civic life as a reduction in downtown parking. Those interests are often decisive in determining local elections.

The results, so far, have been dismal. In 2015, the county pledged to reduce greenhouse gas emissions by 15 percent compared with 2007 levels. Two years later, a progress report found that, rather than reducing those emissions, Santa Barbara was actually exceeding its 2007 levels by 14 percent.

"The city's legacy tells a story about how progressive it is on environmental matters," said Leah Stokes, a political science professor at the University of California at Santa Barbara, who specializes in energy and environmental politics. "But in our own backyard, we are not nearly as progressive as we think."

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The Thomas Fire in December 2017 was the first sign that Santa Barbara's climate had changed and that wildfires had become more severe. It burned 281,000 acres, and heavy rains a month later killed 23 people. (Stuart Palley for The Washington Post)

A state of change

Along Santa Barbara's Del Playa Drive, the cliffs above the Pacific Ocean are disappearing with the rising sea.

One apartment building, popular with UCSB students, was condemned three years ago after the cliffs beneath it crumbled into the water. Last fall, the city's planning department said in a report that, unless conditions change, erosion could claim up to 78 percent of the city's bluffside beaches by 2060.

Reilly Ehrlich, a senior psychology major, waited several years for a spot in her apartment at the edge of a precipice, now so eroded it is being braced

by netting. By the hammock and barbecue out back is a sign attached to the fence. It shows a stick figure falling backward off a cartoon cliff, warning people to keep their distance.

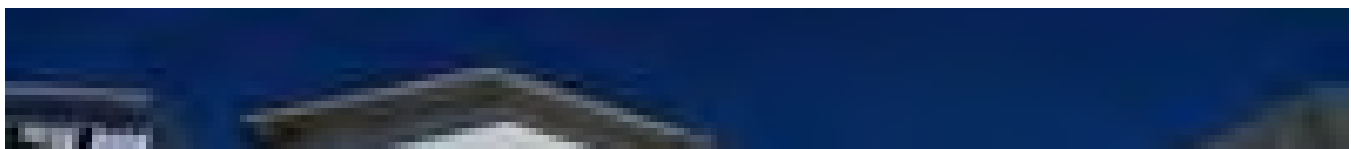
“It’s crazy waking up to this view,” Ehrlich said, the blue Santa Barbara Channel sparkling behind her. “But we always talk about how this house will not be here in 20 years.”

Scientists have no clear answer for why this region is heating up so fast. But they say a century of urbanization in Los Angeles and Orange counties probably plays a role, bringing more traffic up and down the region’s single north-south coastal highway.

Temperature inversions — the appearance of a layer of warm air in the upper atmosphere — are commonplace regionwide but today hold in the larger amounts of smog and heat. Scientists here say the warming waters offshore are beginning to resemble tropical oceans that, according to local fishermen and farmers, are intensifying the dry winds that cascade down the steep coastal range and deepen the effects of drought.

A shift in weather patterns has affected the morning cloud cover known as the marine layer, pushing the foggy early-summer “June gloom” into a late-summer “Fog-gust.” The marine layer also has thinned out, declining by as much as 50 percent since 1970, according to A. Park Williams, a research professor at Columbia University’s Lamont-Doherty Earth Observatory.

That results in less coastal moisture, and more risk of fire.





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Amber Stevens, right, a student at UCSB, plays with friends in Isla Vista. The cliffs below the apartments used as student housing are disappearing as a rising ocean slowly erodes them.

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Some of the cliffs overlooking the Santa Barbara Channel have been reinforced with netting and concrete columns.

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In neighboring Ventura County, the fastest warming in the Lower 48 states, high tides and rough seas are eating away at this seaside parking lot.

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For the past three autumns, tens of thousands of people have packed up family photos, home deeds and marriage licenses to evacuate in fearful, fire-driven migrations, from the Sierra Nevada to San Diego. More than 6,000 residents were forced from their homes here Nov. 25, when the Cave Fire flared up in the Santa Ynez Mountains, burning thousands of acres of chaparral-covered hillside.

Wildfires have long been a fact of life here, but today's fires are simply more intense. The three most severe in state history — measured by acreage burned, homes destroyed and lives lost — have happened in the past two years. In the coastal counties running from Santa Barbara to San Diego, four of the five worst fire seasons of the past half century have burned in the last two decades.

State Sen. Henry Stern (D-Canoga Park), whose home burned in the 2018 Woolsey Fire in Malibu, doesn't know anymore what to tell his constituents north of Los Angeles, who have experienced several fires and electricity outages this fall.

"I feel like I am failing them," he said.

Seeking to reduce fire risk and financial liability, utilities have begun intentionally cutting off power. This year alone, nearly 3 million Californians were left in the dark for days. State officials say generator sales have soared 1,400 percent.

“What we have seen is a complete lack of preparedness,” said Trent
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THE RUBBINS, chief executive of Santa Barbara-based Global Power Supply, F
where customer calls for generator sales and rentals quadrupled in
October. “This is like climate change writ small — you know it’s coming, but
you are not preparing.”

What has surprised those who live, work and study the climate in Santa
Barbara is how precipitously the warming is happening. A recent [study](#) of
the Santa Barbara-area climate projected that “the number of extremely
hot days will likely double by 2050.”

“It’s been hard to connect the dots,” said Santa Barbara County Supervisor
Joan Hartmann, whose district includes parts of the Santa Ynez Valley,
where she has had a home for two decades. Hartmann said she had never
been forced to evacuate by fire until last year. She has since had to leave
home twice.

Now she and her neighbors meet regularly, often in living rooms over a
glass of the valley’s famous pinot noir, to discuss the confounding climate.

“We’re asking each other, ‘Who has the horses if something happens? Who
is frail and needs extra help?’ ” she said. “This is also about social resilience
now, about neighborhoods looking for ways to protect themselves.”

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Rapid warming and extreme weather have affected the coastal sweep from Santa Barbara to San Diego counties. The 2018 Woolsey Fire in Malibu killed three people and torched over 1,600 buildings. (Kyle Grillot for The Washington Post)

‘Global weirding’

On July 6, 2018, a huge high-pressure system over Colorado helped spin a mass of hot air into Southern California.

By 11 a.m., temperatures reached 90 degrees Fahrenheit (32.2 degrees Celsius), so Guner Tautrim, whose family has farmed Orella Ranch for seven generations, worked with his father to spray down their pigs, chickens and horses with water before taking refuge inside.

“The crazy thing happened around 3 p.m., when the temperature just started going up and up,” Tautrim said.

It spiked to 115 degrees Fahrenheit (46.1 degrees Celsius), then, nearly as abruptly, cooled down after sunset. Such an hours-long super spike had happened only once before in Santa Barbara — 149 years ago.

“I call what’s happening here ‘global weirding,’ ” said Tautrim, whose farm was deeded through a Spanish land grant more than two centuries ago.

The damage was severe: Dozens of Tautrim’s animals died in the heat, and his neighbors saw entire avocado harvests fail. Some scorched orchards have yet to recover, and the hills behind his redwood house are parched to the color of desert sand.

Those losses add up.

Last year, Santa Barbara farmers and ranchers took in \$1.5 billion in revenue, a nearly 5 percent decline from the previous year, according to an annual report that began with an introduction titled: “2018 — A year of extreme weather and events.”

The unpredictability has prompted experimentation along the windblown Gaviota Coast, a 76-mile comma of beach and orchards that make up the largest stretch of undeveloped land in Southern California.

Set between the mountains and the sea, Eric Hvolboll’s La Paloma Ranch once filled with water during the rainy season, forming fishing ponds used by the Chumash tribes hundreds of years ago.

Now it is dry.

The ranch's 746 acres of slope and ravine, cropland and pasture have 2°C **BEYOND** $^{\circ}\text{C}$ \leftrightarrow $^{\circ}$
THE LIMIT thanks to a combination of drought and technology. The primary crop since 1969 has been avocado, profitable but water intensive in a place with very little water left. It was the first crop on the farm to need irrigation.

Now crawling up the hillside are neat rows of agave, the spiky plant that in Mexico produces tequila. It is among the least thirsty of crops and, in some ways, takes La Paloma Ranch back to the pre-irrigation days of Hvolboll's grandparents, who relied on the rain alone to grow garbanzo beans, walnuts and lima beans.



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La Paloma Ranch manager John Kleinwachter plants tropical crops that are more resilient to the county's drier, warmer climate.

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Agave is new to coastal Southern California, and the owners of La Paloma Ranch are not sure yet whether it's commercially viable.

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A small Ventura distillery has started selling liquor made from La Paloma's agave, the latest craft offering added to Southern California's homegrown wine and beer.

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“The question I had to ask was, ‘Is there a way we can make money and not use water?’” said Hvolboll, a lawyer by training. “We still don’t know if we can make money doing this.”

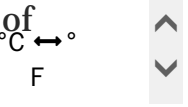
A small Ventura distillery turns the agave into craft tequila — though it can’t be labeled tequila because it isn’t from that region of Mexico. It is selling in small batches, and Hvolboll said he hopes to switch out some of his avocados for the durable plants.

“Our working assumption is that we are going to have less and less water,” said Hvolboll, 64. “Maybe not tomorrow, maybe not in my life. But we have to look at all options around that assumption.”

Four years ago, in the midst of the state’s historic drought, Jay Ruskey winnowed his avocado orchard. At the time, the reservoir in the valley

where much of Santa Barbara's water originates was at just 6 percent of capacity.

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"I don't think people had any idea how close we came to simply running out of water," Ruskey said.

He too, is turning to more tropical crops: finger limes native to Australia, dragon fruit, passion fruit, and now, coffee, which he sells under the brand Frinj. The coffee trees run downhill between his avocado trees, benefiting from the shade.

"These last 10 years have been very different from the first 20 years," said Ruskey, 47, who has owned his farm since 1990. "I could step aside, and someone would replace me. Or I can change."



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Jay Ruskey has winnowed his avocado orchard and turned to planting more exotic fruits on his farm, including the dragon fruit shown here.

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Ruskey is a local pioneer in growing coffee in Southern California. He markets his coffee under the Frinj brand and has clients with whom he consults as far south as San Diego.

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Avocado is a water-intensive crop. A drought four years ago persuaded Ruskey to diversify his plants.

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‘No teeth in these plans’

If there is a God-given civic right in which Santa Barbarans believe, it is bountiful and convenient free public parking.

Studies have found that there is no greater predictor of the number of cars on the road than the availability of free parking. And in Santa Barbara County, the biggest contributor to air pollution and greenhouse gas emissions is the car.

Environmentalists are lobbying to put an end to it and to even replace parking lots on prime downtown real estate with housing. But that

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campaign has so far failed to budge the city council on an issue the business community says is key to profitability.

“Parking is the third rail of Santa Barbara politics,” said Michael Chiacos, a native of the city who works with the nonprofit Community Environmental Council.

Sacrifices in service of environmental goals have been tough to come by in Santa Barbara, local environmentalists say — evidence, perhaps, of the county’s conflicted history.

Huge oil deposits make the region one of California’s primary producers and shape its politics, despite a seminal environmental disaster in January 1969. Then, a Unocal rig blowout cracked the sea floor, spilling 3 million barrels of oil, the third-largest spill in U.S. history. To this day, beachgoers find tar on their feet from the still-seeping oil.

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State forestry conservation crews, made up of inmates pictured here, clean up Santa Barbara's beaches on Feb. 6, 1969, after a gigantic oil spill. The accident inspired the Earth Day movement. (Wally Fong/AP)

The disaster gave rise to Earth Day, and much of the environmental expertise and activism that grew up around the movement is still based here. But Santa Barbara is often accused of caring more about how it looks than how it lives.

Several government-sanctioned architectural review boards make sure the city's breezy, Mediterranean aesthetic remains intact, supported by many staff members. But until recently, only one person was directly responsible for moving the city toward renewable energy sources.

The county conducts a full inventory of its greenhouse gas emissions only once every three years. And its Climate Action Plan imposes no mandatory regulations on businesses or individuals.

“There are no teeth in these plans. The rules are just words on paper,” said Tomás Morales Rebecchi, the senior Central Coast organizer for the nonprofit Food & Water Watch. “No one is there to enforce it.”

Williams, the county supervisor, once used the term “environmental poseurs” to describe the gap between Santa Barbara’s talk on the environment and its actions.

“We’re always willing to make changes that cost nothing, but never willing to take steps that really change things and that will cost something,” said Edward France, the former executive director of the Santa Barbara Bicycle Coalition.

There has been some progress. The city council recently voted to create a program that allows utility customers to select the source of their electricity. Residents will automatically receive 100 percent renewable power from desert solar panels, which can be more expensive, unless they choose not to participate.

But the oil industry still has clout. In 2014, it spent big to defeat a county referendum that would have banned “high-intensive” drilling operations such as fracking and steam injection. And county officials are actively considering a proposal to allow a major drilling expansion in the north, a move environmentalists say would directly contradict their climate goals.

“We’ve got this wave of new oil projects being proposed, but we also have a climate action plan,” said Linda Krop, chief counsel of the Environmental Defense Center, a local organization that emerged after the 1969 oil spill.

“You can’t responsibly approve one, and claim to be serious about the other.”
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Drill horses line Route 33 in Ventura County. The region’s push for a greener economy has at times been complicated by the big-money legacy of oil, which is bountiful along the coast and offshore.

Fire in the valley

On a warm late-September evening, several dozen farmers and ranchers gathered inside the stuffy gymnasium of Los Olivos Elementary School to learn about one of the more peculiar aspects of living in a place that is warming faster than most anywhere in the country.

Eric Daniels, regional policy and external affairs director for Pacific Gas and Electric, the state’s largest utility, had been invited to explain a

2°C: BEYOND THE LIMIT decision to begin cutting power to their homes in the hope of preventing wildfires caused by downed lines.



“My office has been inundated with questions about this,” Hartmann, the county supervisor, told the audience. “What is frustrating right now is that we need to protect our residents, but we do not have a say over these shutdowns.”

Daniels said PG&E would act only in times of extreme risk and would try to give people two-days’ notice before turning off electricity to their water pumps, refrigerated warehouses and homes.

“This will give you and your loved ones time to get your emergency kits ready,” he said.



Larry Saarloos, owner of Saarloos and Sons winery, spent hundreds of thousands of dollars on
2°C: BEYOND THE LIMIT prevention measures around his vineyard, only to find after a power outage that they **Climate**
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In the audience sat Larry Saarloos, a vintner who has spent more than \$100,000 building his own Maginot Line against wildfire. Over the past three years, Saarloos installed two fire hydrants, new alarms and an advanced system of sprinklers and cisterns on his 100-acre ranch, a mix of horses, cattle and grapes that his family turns into well-regarded syrah and cabernet sauvignon.

The price seemed a small one to pay as fall approached. One dry, breezy day in early September, two fires sparked nearby, their pillars of smoke bracketing his home. He turned to his wife, Linda, and assured her that all would be fine when he turned on the sprinklers to wet the place down.

But when he flipped the switch, nothing happened. The power had been cut by an equipment failure.

Mark Mesesan, a PG&E spokesman, said smoke and airborne debris had caused an electrical fault. "This is an area where we're working to improve," he said via email.

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The latest news about climate change, energy and the environment, delivered every Thursday.

To Saarloos, the experience was an unpleasant introduction to a confusing world.

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“Everything I just told you I did, the steps I took, meant absolutely nothing to the protection of my home when the fire came,” he said. “I might as well not have spent any money at all.”

Those who followed had questions, unanswerable now. Would PG&E, now bankrupt with billions of dollars in fire-related liability costs, reimburse them for lost produce? Would the state offer tax breaks for generator purchases? Or would they simply be left in the dark when the fires came?

“We’ve got a lot of folks working on those things right now,” said Matthew Pontes, the assistant county executive officer of Santa Barbara. “I hope we have some better answers for you soon.”



The Getty Fire in Los Angeles burned a dozen homes in late October, ahead of Halloween, this year, as temperatures soared above the 2°C (36°F) threshold near Brentwood.

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Chris Mooney contributed to this report.

METHODOLOGY

To analyze warming temperatures in the United States, The Washington Post used the [National Oceanic and Atmospheric Administration's Climate Divisional Database \(nClimDiv\)](#), which provides monthly temperature data at the national, state and county level between 1895 and 2018 for the Lower 48 states. NOAA does not provide this data for Hawaii, and its data for Alaska begins in 1925.

We calculated annual mean temperature trends in each state and county in the Lower 48 states using linear regression — analyzing both annual average temperatures and temperatures for the three-month winter season (December, January and February). While not the only approach for analyzing temperature changes over time, this is a widely used method.

Annual temperature averages in the interactive county feature are displayed as departures from the 1895-2018 average temperature for each county. These departures from the average are referred to as "temperature anomalies" by climate scientists.

To make the maps, we applied the same linear regression method for annual average temperatures to [NOAA's Gridded 5km GHCN-Daily Temperature and Precipitation Dataset \(nClimGrid\)](#), which is the basis for nClimDiv. For mapping purposes, the resolution of the data was increased using bilinear interpolation.

The nClimDiv and nClimGrid datasets were accessed June 10 and July 22 respectively.

Fire perimeters for 2019 from [USGS GeoMAC Wildland Fire Support](#) were accessed Nov. 15. Fire perimeters for past years are from [the California Department of Forestry and Fire Protection](#).

Credits

2°C: BEYOND THE LIMIT

Project by Trish Wilson. Editing by Lori Montgomery. Design and development by Madison Walls and Irfan Uraizee. Graphics editing by Monica Ulmanu. Photo editing by Olivier Laurent. Copy editing by Whitney Juckno.



Scott Wilson



Scott Wilson is a senior national correspondent for The Washington Post, covering California and the West. He has previously served as The Post's national editor, chief White House correspondent, deputy assistant managing editor for foreign news, and as a correspondent in Latin America and in the Middle East.

Michael Robinson Chavez



Michael Robinson Chavez, a staff photographer, recently won a Robert F. Kennedy Award for his coverage of social problems created by the drug trade plaguing Mexico. In 2018 he covered the rise of autocracy in Eastern Europe.

John Muyskens

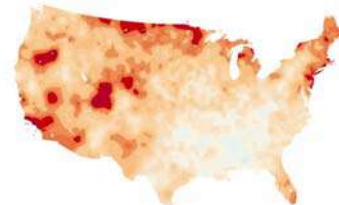


John Muyskens is a graphics editor at the Washington Post specializing in data reporting.

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2°C: BEYOND THE ENVIRONMENT

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EXHIBIT 2

Assembly Bill No. 74

CHAPTER 23

An act making appropriations for the support of the government of the State of California and for several public purposes in accordance with the provisions of Section 12 of Article IV of the Constitution of the State of California, relating to the state budget, to take effect immediately, budget bill.

[Approved by Governor June 27, 2019. Filed with Secretary of State June 27, 2019.]

I object to the following appropriations contained in Assembly Bill 74.

Item 0250-301-0001—For capital outlay, Judicial Branch. I delete this item.

I am eliminating the \$2,800,000 appropriation for the El Dorado County Courthouse. While I understand that there is a need to build this new courthouse, this expenditure authority is premature until the Judicial Council completes the statutorily-required statewide facilities needs assessment.

Item 0521-101-0001—For local assistance, Secretary of Transportation. I sustain this item.

Chapter 934, Statutes of 2018, requires the Transportation Agency, in consultation with the Natural Resources Agency, to conduct an assessment of the North Coast Railroad Authority to determine what is needed to dissolve the authority and dispense with its assets and liabilities, and to report on the assessment to the Legislature before July 1, 2020. I am sustaining the \$8,800,000 for expenses related to dissolving the North Coast Railroad Authority; however, these funds will not be released until the required assessment of assets and liabilities is completed. The Administration is committed to the dissolution of the North Coast Railroad Authority.

Item 0650-491—Reappropriation, Office of Planning and Research. I revise this item by deleting Provision 1.

This veto is technical in nature and deletes Provision 1 to conform to the Legislature's intent.

Item 7320-001-0001—For support of Public Employment Relations Board. I revise this item from \$17,251,000 to \$14,751,000 by reducing:

(1) 6070-Public Employment Relations Board from \$17,371,000 to \$14,871,000; and by deleting Provision 1.

I am deleting the \$2,500,000 legislative augmentation, which would provide additional resources to the Public Employment Relations Board. The expenditure authority is premature. A recent mission-based review of the Board resulted in adding 18 positions and \$4,300,000. My Administration will continue to monitor and review workload and backlogs and propose any needed changes.

I am also deleting Provision 1 to conform to this action.

With the above deletions, revisions, and reductions, I hereby approve Assembly Bill 74.

GAVIN NEWSOM, Governor

| Item | Amount |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Schedule: | |
| (1) 0340-Support..... | 1,354,000 |
| 0555-001-0193—For support of Secretary for Environmental Protection, payable from the Waste Discharge Permit Fund..... | 627,000 |
| Schedule: | |
| (1) 0340-Support..... | 627,000 |
| 0555-001-0226—For support of Secretary for Environmental Protection, payable from the California Tire Recycling Management Fund..... | 133,000 |
| Schedule: | |
| (1) 0340-Support..... | 133,000 |
| 0555-001-0235—For support of Secretary for Environmental Protection, payable from the Public Resources Account, Cigarette and Tobacco Products Surtax Fund..... | 96,000 |
| Schedule: | |
| (1) 0340-Support..... | 96,000 |
| 0555-001-0387—For support of Secretary for Environmental Protection, payable from the Integrated Waste Management Account, Integrated Waste Management Fund..... | 279,000 |
| Schedule: | |
| (1) 0340-Support..... | 279,000 |
| 0555-001-0439—For support of Secretary for Environmental Protection, payable from the Underground Storage Tank Cleanup Fund..... | 1,377,000 |
| Schedule: | |
| (1) 0340-Support..... | 1,377,000 |
| 0555-001-0679—For support of Secretary for Environmental Protection, payable from the State Water Quality Control Fund..... | 201,000 |
| Schedule: | |
| (1) 0340-Support..... | 201,000 |
| 0555-001-0890—For support of Secretary for Environmental Protection, payable from the Federal Trust Fund..... | 300,000 |
| Schedule: | |
| (1) 0340-Support..... | 300,000 |
| 0555-001-3058—For support of Secretary for Environmental Protection, payable from the Water Rights Fund..... | 37,000 |
| Schedule: | |
| (1) 0340-Support..... | 37,000 |
| 0555-001-3228—For support of Secretary for Environmental Protection, payable from the Greenhouse Gas Reduction Fund..... | 3,000,000 |

Item

Amount

Schedule:

(1) 0340-Support..... 3,000,000

Provisions:

1. Of the funds appropriated in this item, \$1,500,000 shall be available for a study to identify strategies to significantly reduce emissions from vehicles and to achieve carbon neutrality in the sector, including the transition to zero-emission light-duty vehicles, in particular, passenger vehicles, the transition to zero-emission heavy vehicles, and the adoption of other technology to significantly reduce emissions from heavy vehicles; the role of alternative fuels; and the impact of land use policy. The study shall include, but not be limited to, strategies for reducing vehicle miles traveled, including increasing transit ridership. The Secretary for Environmental Protection shall consult with the State Air Resources Board, Energy Resources Conservation and Development Commission, the Transportation Agency, the Office of Planning and Research, and the Governor’s Office of Business and Economic Development on the study.
2. Of the funds appropriated in this item, \$1,500,000 shall be available for a study to identify strategies to decrease demand and supply of fossil fuels, while managing the decline of fossil fuel use in a way that is economically responsible and sustainable. The Secretary for Environmental Protection shall contract with the University of California system to produce this study. An interagency state team led by the California Environmental Protection Agency shall further develop the scope of the study in order to evaluate pathways to achieve a carbon neutral economy by 2045, manage the decline of in-state production as the state’s fossil fuel demand decreases, and assess potential impacts to disadvantaged and low-income communities and strategies to address those impacts. The Secretary for Environmental Protection shall consult with the Natural Resources Agency, the Transportation Agency, the Labor and Workforce Development Agency, and the Office of Planning and Research on the study.

EXHIBIT 3

Study 1 Draft Scope of Work

CalEPA Contract with Regents of the University of California; Institute of Transportation Studies

Draft 12/18/19

Purpose: Governor Newsom affirmed the state’s goal of achieving carbon neutrality by 2045 in the 2019 Budget Act. To achieve our carbon neutrality goal, the state will need to reduce dramatically our greenhouse gas emissions while permanently removing carbon from the atmosphere. These efforts will include: managing strategic statewide reductions in fossil fuel demand and supply; electrifying key sectors and end uses; and making significant investments in transitioning the transportation sector and the electrical grid to zero carbon emissions. These shifts will need to take place alongside targeted investments in communities and in the state’s workforce to ensure that this transition maximizes equity, resiliency, health, and environmental quality across the state.

The transportation sector is an especially important priority for the state. When including fossil fuel extraction and refining, the transportation sector accounts for half of California’s greenhouse gas emissions. Additionally, California’s transportation sector relies primarily on petroleum fuels, significant amounts of which are produced and sourced from within the state.

Through the 2019 Budget Act, the Newsom Administration funded two studies to identify strategies to reduce the demand for and supply of fossil fuels, with the goal of dramatically reducing emissions across the transportation sector. The purpose of this agreement is to produce one of two comprehensive, integrated studies that identify paths to significantly reduce transportation-related fossil fuel demand and emissions, and, in parallel, manage a strategic, responsible decline in transportation-related fossil fuel supply. This agreement’s study will focus on managing the decline in demand.

The two integrated studies will share common guiding principles and will incorporate common workforce and affordability considerations. The studies will also share aligned scenarios and strategies that the state, local governments and others may consider and implement to support achieving the state’s carbon neutrality goal. To the extent possible and relevant to the unique characteristics of the state’s local and regional economies, the studies shall also draw upon lessons learned from other models of economic and social transitions.

The guiding principles underlying each of the two studies are:

- a. Equity. Equitably distribute all benefits associated with achieving carbon neutrality. Achieve environmental justice and shared prosperity in the context of a changing climate.

- b. Health. Improve and protect public health. Prioritize health, safety, and opportunity for the state’s most vulnerable and disadvantaged residents, and for communities disproportionately burdened by pollution.
- c. Environment. Improve and protect environmental quality across the state.
- d. Resilience and Adaptation. Develop resilience and adaptive capacity locally, across the state.
- e. High Road Jobs. Foster sustainable and diversified local and regional economies, and prioritize the creation of accessible high quality jobs for all communities, particularly the state’s most vulnerable and disadvantaged residents and resource-dependent communities.
- f. Affordability and Access. Deliver affordable, accessible, and reliable non-fossil fuel options and technologies.
- g. Minimize Impacts Beyond Our Borders. Minimize emissions leakage and external costs beyond the state’s borders, to the maximum extent possible.

CalEPA and its interagency partners will facilitate shared and equal access to decision making and related processes during the development of the studies.

Study 1 Reducing Transportation-Related Fossil Fuel Demand and Emissions

For purposes of the two studies, carbon neutrality means achieving a balance between sources and sinks of greenhouse gas (GHG) emissions. The focus of the studies will be to evaluate how to both reduce emissions from fossil energy and industrial sources and how to increase sinks.

This study shall be coordinated and integrated with the other study referred to above, here called “Study 2,” and shall not duplicate the work of Study 2. Study 2 will focus on strategies to manage the decline in transportation-related fossil fuel supply and will be led by researchers at the University of California, Santa Barbara (“UCSB Team”).

The two studies will coordinate the development of potential transportation-related GHG emissions trajectories in California and will develop a common set of scenarios that reduce transportation-related fossil fuel demand, and, in parallel, manage the decline in transportation-related fossil fuel supply.

Focus Areas: The contractor shall expend a majority of its time and effort in investigating these Focus Areas as elements of a roadmap to achieve carbon neutrality by 2045:

1. **Evaluate market characteristics of the transportation sector and policies already underway and/or under consideration** for California, including:
 - a. Current market characteristics and trends: global, regional and local trends in prices for and access to zero-emission vehicles between now and 2045; global trends in battery capacity/electric vehicle range; current number and percentage of zero-emission vehicles in light, medium and heavy duty fleets; length of time of ownership of internal combustion

engine vehicles; sales data from primary and secondary markets, to the extent possible; number of and geographic need for electric vehicle charging stations, hydrogen fueling stations, and gasoline stations; gasoline and electric prices; observed current and potential future barriers to access to and the selection of zero emission vehicles; factors driving changes in travel behavior; and factors affecting vehicle and ride sharing and public transit ridership options and cost

- b. Current employment characteristics and trends: existing jobs in terms of (1) number (by occupation and industry); (2) quality (e.g., wages, benefits, autonomy, voice); and (3) access (e.g., demography, geography, educational status, and educational or career pathways) across the transportation sector.
 - c. Current relevant policies: fuel standards; vehicle mandates and incentive programs, vehicle trade-in and rebate policies; incentives for developing refueling infrastructure for alternative fuels (electricity and hydrogen); purchasing and finance criteria; transportation network company regulations; land use policies; active and public transportation policies
2. **Scenarios for reducing transportation-related fossil fuel demand and emissions** that include all the strategies listed in sections 3 through 6. Analysis should include:
- a. Indicative milestones or targets, e.g., for fleet composition, transit ridership, and other influential indicators; where possible, these should be benchmarked against existing policies and goals
 - b. Reductions in transportation fuel demand corresponding with milestones and targets outlined above
 - c. Changes in travel demand and behavior due to changes in housing costs, supply and location; land use; transportation infrastructure; emergence of new mobility options; and other changes in society, technology and policy
 - d. Assessments of the health, social, environmental and economic benefits associated with a dramatic reduction in vehicle emissions across state, regional and local geographies, and with an overall reduction in vehicle miles traveled
 - e. Assessment of transportation access and needs, particularly for vulnerable communities and mobility disadvantaged travelers
 - f. Where possible, scenarios will include the net effect of combinations of levels of ambition in each strategy (i.e., different pathways to achieve zero or very low emissions)
3. Strategies to **accelerate the adoption of light-duty zero-emission vehicles (ZEVs)**, including:
- a. The role of purchase incentives and mandates for new and used ZEVs (e.g., applicability or eligibility; amount; timing, duration, and quantity)
 - b. Greenhouse gas emission performance standards and feebate policies
 - c. Incentives for dealers and automakers to expand availability of ZEVs
 - d. Market development, model availability and range

- e. Expanded charging (and hydrogen fueling) infrastructure and impacts on existing infrastructure, including electric and fossil fuel supply infrastructure
 - f. Strategies to transition existing light-duty fleets with a focus on those owned and used by low-income residents and the workforce
4. Strategies to **reduce vehicle miles traveled**, including:
- a. Strategies available to state and local governments to improve housing availability and affordability, and to focus economic activity near existing housing
 - b. Strategies to develop land-use policies and provide transportation alternatives
 - c. Strategies to increase public transit ridership
 - d. Strategies to increase active transportation, e.g., walking and bicycling
 - e. Strategies that consider the role of technologies including connected and automated vehicles, shared mobility, and micromobility services
 - f. Strategies that consider roadway and vehicle pricing mechanisms
 - g. Strategies that encourage ride sharing and vehicle sharing (greater load factors)
5. Strategies to **accelerate use of alternative fuel sources and similar technologies** for light-, medium-, and heavy-duty vehicles and other modes of transportation (e.g., aviation, rail and marine)
6. Strategies to **accelerate the transition to zero-emission medium- and heavy-duty vehicles (including off-road vehicles regulated by the state) and related freight infrastructure** (e.g., railyards, shipyards, ports and distribution and logistics centers)
7. Strategies to **increase economic opportunity, high quality job creation, and integrated skill delivery**, including:
- a. How the above scenarios (e.g., VMT reduction, ZEV adoption, alternative fuels scenarios, and new mobility and automation in transportation) will affect employment in industries including logistics, port operations, manufacturing, construction, operations and maintenance.
 - b. The role quality transportation will play in providing access to jobs and supporting other careers.
 - c. What projected labor market indicators (e.g., job numbers, quality, and access) for each milestone in the transitions identified above will tell us about the research and/or policies necessary to advance economic opportunity for all Californians, especially those in disadvantaged, low income and vulnerable communities.

EXHIBIT 4

Study 2 Draft Scope of Work

CalEPA Contract with the University of California, Santa Barbara

Draft 12/18/19

Purpose: Governor Newsom affirmed the state's goal of achieving carbon neutrality by 2045 in the 2019 Budget Act. To achieve our goal, the state will need to reduce dramatically our greenhouse gas emissions while permanently removing carbon from the atmosphere. These efforts will include managing strategic statewide reductions in fossil fuel demand and supply; electrifying key sectors and end uses; and making significant investments in transitioning the transportation sector and the electrical grid to zero carbon emissions. These shifts will need to take place alongside targeted investments in communities and in the state's workforce to ensure that this transition maximizes equity, resiliency, health, and environmental quality across the state.

The transportation sector is an especially important priority for the state. When including fossil fuel extraction and refining, the transportation sector accounts for half of California's greenhouse gas emissions. Additionally, California's transportation sector relies primarily on petroleum fuels, significant amounts of which are produced and sourced from within the state.

Through the 2019 Budget Act, the Newsom Administration funded two studies to identify strategies to reduce the demand for and supply of fossil fuels, with the goal of dramatically reducing emissions across the transportation sector. The purpose of this agreement is to produce one of two comprehensive, integrated studies that identify paths to significantly reduce transportation-related fossil fuel demand and emissions, and, in parallel, manage a strategic, responsible decline in transportation-related fossil fuel supply. This agreement's study will focus on managing the decline in supply.

The two integrated studies will share common guiding principles and will incorporate common workforce and affordability considerations. The studies will also share aligned scenarios and strategies that the state, local governments and others may consider and implement to support achieving the state's carbon neutrality goal. To the extent possible and relevant to the unique characteristics of the state's local and regional economies, the studies shall also draw upon lessons learned from other models of economic and social transitions.

The guiding principles underlying each of the two studies are:

- a. Equity. Equitably distribute all benefits associated with achieving carbon neutrality. Achieve environmental justice and shared prosperity in the context of a changing climate.

- b. Health. Improve and protect public health. Prioritize health, safety, and opportunity for the state’s most vulnerable and disadvantaged residents, and for communities disproportionately burdened by pollution.
- c. Environment. Improve and protect environmental quality across the state.
- d. Resilience and Adaptation. Develop resilience and adaptive capacity locally, across the state.
- e. High Road Jobs. Foster sustainable and diversified local and regional economies, and prioritize the creation of accessible high quality jobs for all communities, particularly the state’s most vulnerable and disadvantaged residents and resource-dependent communities.
- f. Affordability and Access. Deliver affordable, accessible, and reliable non-fossil fuel options and technologies.
- g. Minimize Impacts Beyond our Borders. Minimize emissions leakage and external costs beyond the state’s borders, to the maximum extent possible.

CalEPA and its interagency partners will facilitate shared and equal access to decision making and related processes during the development of the studies.

Study 2

Supply of Transportation Fuels

For purposes of the two studies, carbon neutrality means achieving a balance between sources and sinks of greenhouse gas (GHG) emissions. The focus of the studies will be to evaluate how to both reduce emissions from fossil energy and industrial sources and how to increase sinks.

This study shall be coordinated and integrated with the other study referred to above, here called “Study 1,” and shall not duplicate the work of Study 1. Study 1 will focus on strategies to reduce transportation-related fossil fuel demand and emissions and will be led by researchers at the University of California Institute of Transportation Studies (“ITS Team”).

The two studies will coordinate the development of potential transportation-related GHG emissions trajectories in California and will develop a common set of scenarios that reduce transportation-related fossil fuel demand, and, in parallel, manage the decline in transportation-related fossil fuel supply.

Focus Areas: The contractor shall expend a majority of its time and effort in investigating these Focus Areas as elements of a roadmap to achieve carbon neutrality by 2045:

1. **Evaluate key characteristics, trends and policies already underway and/or under consideration for California**, including:
 - a. Current emissions characteristics: overall emissions (e.g., GHG, criteria air pollutants and other toxic contaminants) associated with transportation-

related fossil fuel (“transportation fuels”) production (which includes extraction, refining and distribution) and GHG sinks associated with transportation fuels, e.g., carbon, capture and storage (CCS).

- b. Current market characteristics and trends: global prices and carbon footprint of transportation fuels; projected prices and supply of transportation fuels; fleet-specific transportation fuel use in California; percentage of imported transportation fuels refined in California; percentage of transportation fuel supply produced in state; and comparative carbon content from different transportation fuel sources used in California.
 - c. Current employment characteristics and trends: existing jobs in terms of (1) number (by occupation and industry); (2) quality (e.g., wages, benefits, autonomy, voice); and (3) access (e.g., demography, geography, educational status, and educational or career pathways) across transportation fuel production (i.e., extraction, refining and distribution).
 - d. Current distributional characteristics and trends: (1) distribution and geographic concentration of exposures to and health burdens and vulnerabilities associated with local pollution (e.g., from GHG emissions, criteria air pollutants and other toxic contaminants) and other health and safety risks; and (2) distribution of transportation fuel costs across the state.
 - e. Current relevant policies: (1) policies and strategies that impact the supply of transportation fuels, including those that manage the decline in supply and those that incentivize production (e.g., tax subsidies); (2) workforce policies; (3) local pollution reduction policies; (4) land use policies; (5) permitting criteria and issuance thresholds for transportation fuel production and use permits; and (6) policies that support low-income workers and residents.
2. **Identify scenarios to manage the decline of the state’s transportation fuel supply in conjunction with the fuel demand reduction** outlined in Study 1. Across these scenarios the study will identify and evaluate:
- a. Reductions in transportation fuel supply (1) for all transportation-related uses and (2) from all sources.
 - b. Health and safety benefits across state, regional and local geographies including changes in location, magnitude and concentration of supply-related activities and local pollutants, among others.
 - c. Economic impacts and opportunities across state, regional and local economies, including changes in fuel costs across locations, and changes to and impacts on state and local tax revenues, among others.

- d. Environmental benefits across state, regional and local geographies associated with reductions in supply, including improved air and water quality, among others.
- e. Changes in GHG sinks related to transportation fuel production.
- f. Workforce impacts, challenges and opportunities, including those associated with market transitions and economic development, and those represented by changes in job numbers, quality and access, and changes in career pathways, across local and regional economies. Include a focus on:
 - i. Support for an inclusive, high-road transition (i.e., one attentive to job quality and access that addresses the interests of workers and community).
 - ii. Development or expansion of state, industry and/or regional partnerships;
 - iii. Identification of potential sector-specific and cross-sector approaches;
 - iv. Creation and provision of social and economic safety nets; and,
 - v. Facilitation of industry transition planning.
- g. Policies and strategies that maximize benefits and opportunities, and manage impacts, to communities that bear the greatest emissions burdens associated with transportation fuel production and communities that are resource-dependent, including: (1) local pollution reduction policies; (2) land use policies; (3) permitting criteria and issuance thresholds for all oil and gas production and use permits; (4) policies that support and advance economic opportunities for low-income workers and residents, and (5) policies to limit social dislocation; among others.

EXHIBIT 5

2017 Report of California Oil and Gas Production Statistics

* Figures in this report are estimates based on available production data.



Department of Conservation Division of Oil, Gas, & Geothermal Resources

STATE OF CALIFORNIA

EDMUND G. BROWN JR., *Governor*

NATURAL RESOURCES AGENCY

JOHN LAIRD, *Secretary*

DEPARTMENT OF CONSERVATION

DAVID BUNN, *Director*

2017 ANNUAL REPORT OF CALIFORNIA OIL AND GAS PRODUCTION STATISTICS



DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
Kenneth A. Harris, Jr., *State Oil and Gas Supervisor*

SACRAMENTO
SEPTEMBER 2018

CALIFORNIA 2017 OIL AND GAS PRODUCTION

OIL PRODUCTION

Production

California's oil production for 2017 was 174.0 MMbbl, a decrease of approximately 6.8 percent from 2016. California onshore production decreased approximately 6.7 percent from 2016 and offshore decreased approximately 7.8 percent from 2016.

As of January 1, 2011, this report will not show any Federal OCS production.

Federal OCS production data may be found at https://www.data.boem.gov/homepg/data_center/production/PacificFreeProd.asp

State Oil Production (MMbbl per year)

Without Federal OCS Production

| Year | 2017 | 2016 | 2015 | 2014 | 2013 |
|-----------------------|-------|-------|-------|-------|-------|
| State Onshore | 163.4 | 175.2 | 188.7 | 191.2 | 185.5 |
| State Offshore | 10.6 | 11.5 | 13.0 | 14.2 | 14.2 |
| Total | 174.0 | 186.7 | 201.7 | 205.4 | 199.7 |

Oil Production from the Largest Fields (MMbbl per year)

Without Federal OCS Production

| Field Name | 2017 | 2016 | 2015 | 2014 | 2013 |
|-----------------|------|------|------|------|------|
| Midway-Sunset | 22.1 | 24.7 | 28.2 | 29.3 | 28.8 |
| Kern River | 21.9 | 24.3 | 25.7 | 25.3 | 25.7 |
| Belridge, South | 21.2 | 22.6 | 22.9 | 23.6 | 23.5 |
| Cymric | 16.2 | 16.9 | 16.5 | 15.7 | 14.5 |
| Wilmington | 11.6 | 12.6 | 9.7 | 10.0 | 9.8 |
| Lost Hills | 9.5 | 10.3 | 11.2 | 11.2 | 10.8 |
| Elk Hills | 9.1 | 10.1 | 11.3 | 12.0 | 12.8 |
| San Ardo | 7.2 | 7.9 | 7.8 | 7.7 | 7.2 |
| Coalinga | 6.6 | 6.4 | 6.8 | 6.1 | 5.5 |
| Poso Creek | 4.4 | 4.2 | 4.0 | 3.6 | 2.8 |

Figure 1 graphically depicts the relative oil production among the top 10 largest producing fields in the table above.

Price

The posted price for Midway-Sunset 13 degree API gravity crude oil averaged \$48.19. The year started at \$47.17 per barrel and ended at \$59.24. The high for 2017 was the year-end price of \$59.24. The low for the year was \$41.01 in June.

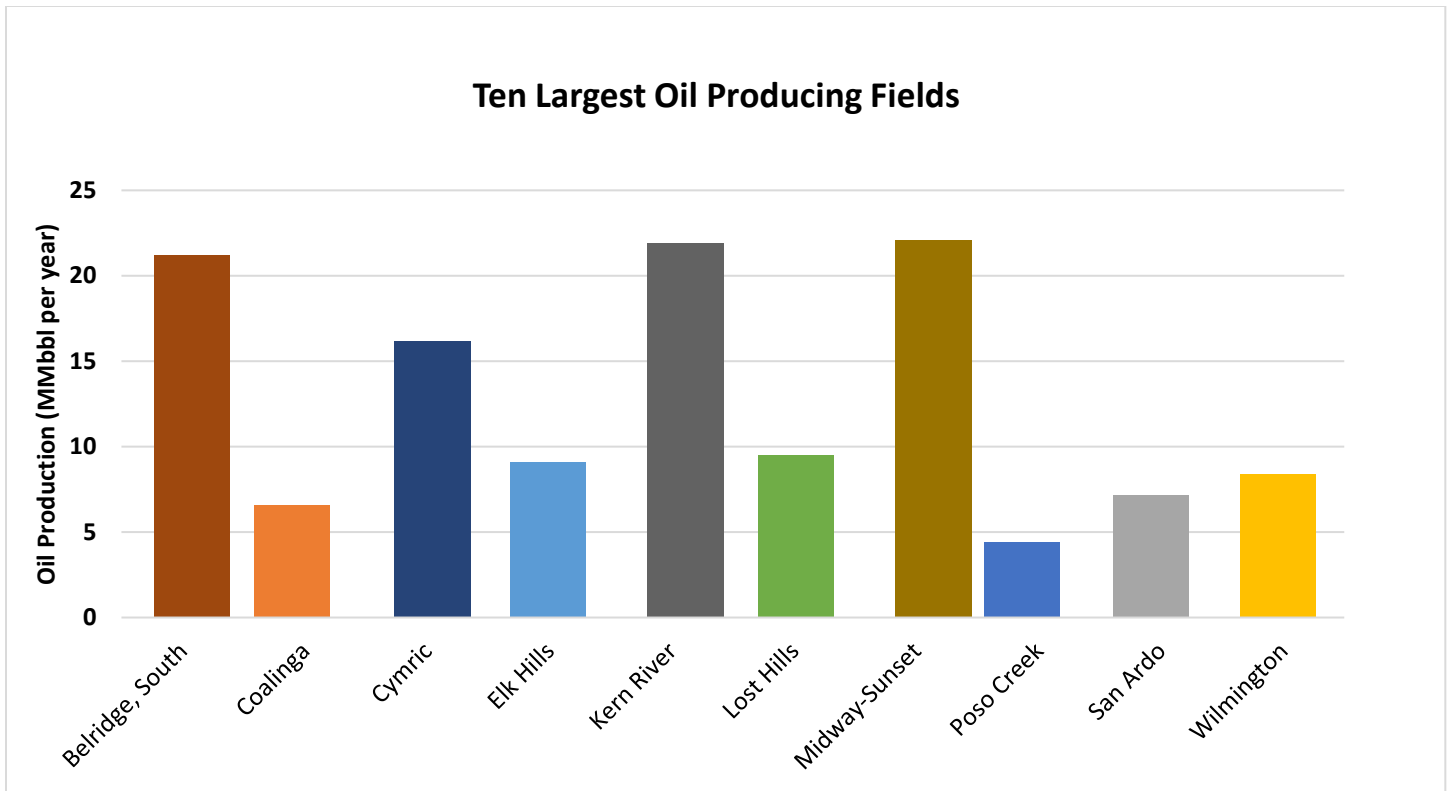


Figure 1. Ten largest producing oil fields in California in 2017.

GAS PRODUCTION

Production

California's net gas production (associated and non-associated) for 2017 was 162.7 Bcf, an increase of 3.6 percent from the 2016 figure of 157.3 Bcf. The associated gas production increased about 7.7 Bcf, and the non-associated gas production decreased about 2.3 Bcf.

State Net Gas Production (Bcf per year)

Without Federal OCS Production

| Year | 2017 | 2016 | 2015 | 2014 | 2013 |
|-----------------------------|-------|-------|-------|-------|--------|
| Total Associated | 142.4 | 134.7 | 154.8 | 151.9 | 175.4 |
| Total Non-Associated | 20.3 | 22.6 | 28.0 | 35.0 | 41.4 |
| Total | 162.7 | 157.3 | 182.8 | 186.9 | 216.7* |

State Net Gas Production (Bcf per year)

Without Federal OCS Production

| Year | 2017 | 2016 | 2015 | 2014 | 2013 |
|-----------------------|-------|-------|--------|-------|-------|
| Total Onshore | 158.7 | 152.9 | 178.0 | 181.2 | 211.4 |
| Total Offshore | 4.0 | 4.4 | 5.0 | 5.7 | 5.3 |
| Total | 162.7 | 157.3 | 182.8* | 186.9 | 216.7 |

Net Associated Gas Production from the Largest Fields (Bcf per year)

Without Federal OCS Production

| Field Name | Net Gas Production |
|-----------------|--------------------|
| Elk Hills | 56.2 |
| Buena Vista | 13.3 |
| Kern River | 10.3 |
| Belridge, South | 8.1 |
| Vallecitos | 6.7 |
| Midway-Sunset | 4.5 |
| Lost Hills | 4.5 |
| Asphalto | 4.0 |
| Wilmington | 3.7 |
| Cymric | 2.8 |

Figure 2 graphically depicts the relative associated gas production among the top 10 largest producing fields in the table above.

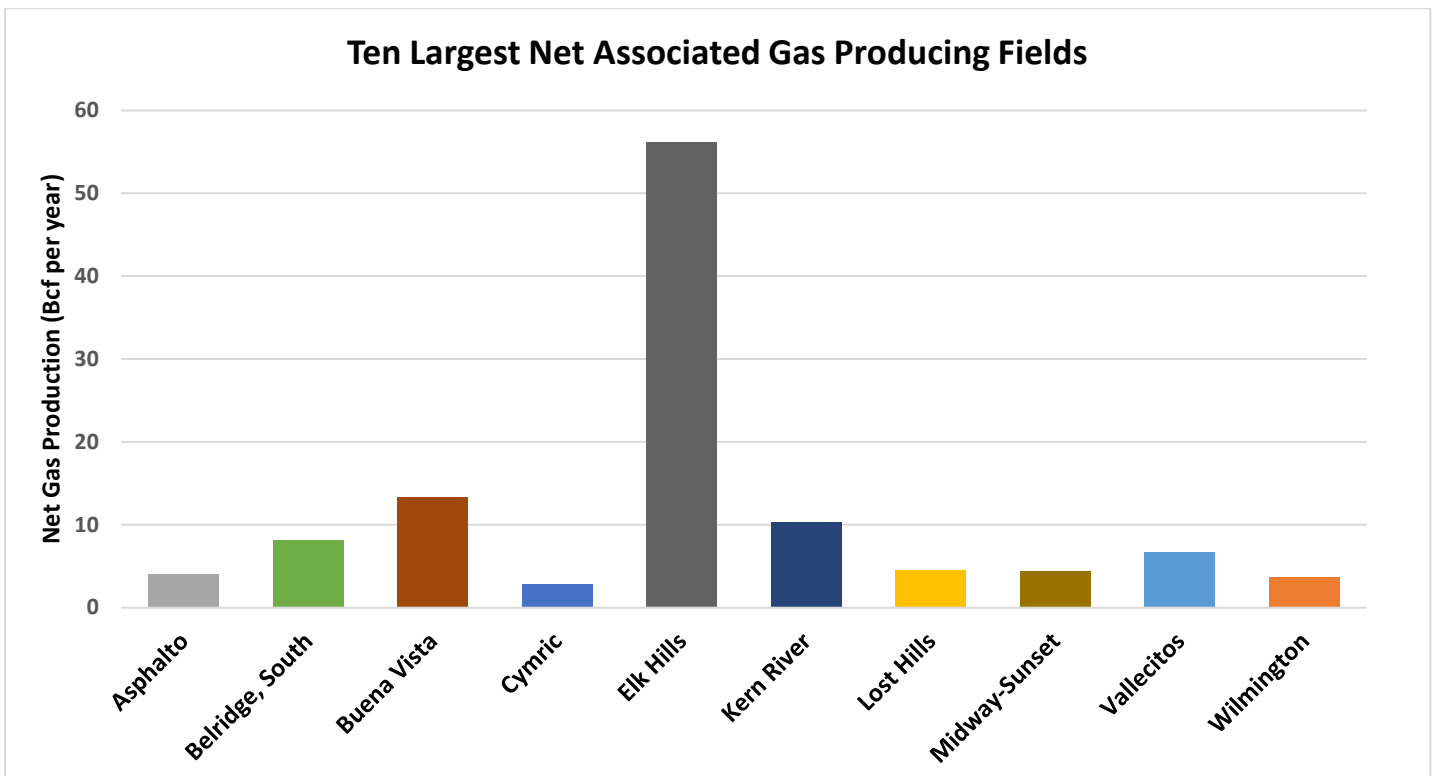


Figure 2. Ten largest fields net associated gas production in 2017.

Net Non-Associated Gas Production from the Largest Fields (Bcf per year)

Without Federal OCS Production

| Field Name | Net Gas Production |
|--------------------------|--------------------|
| Rio Vista Gas | 4.8 |
| Willows-Beehive Bend Gas | 2.9 |
| Grimes Gas | 2.8 |
| Sutter Buttes Gas | 1.6 |
| Sycamore Gas | 0.6 |
| French Camp Gas | 0.5 |
| Malton-Black Butte Gas | 0.5 |
| Grimes, West, Gas | 0.4 |
| Tompkins Hill Gas | 0.4 |
| Union Island Gas | 0.4 |

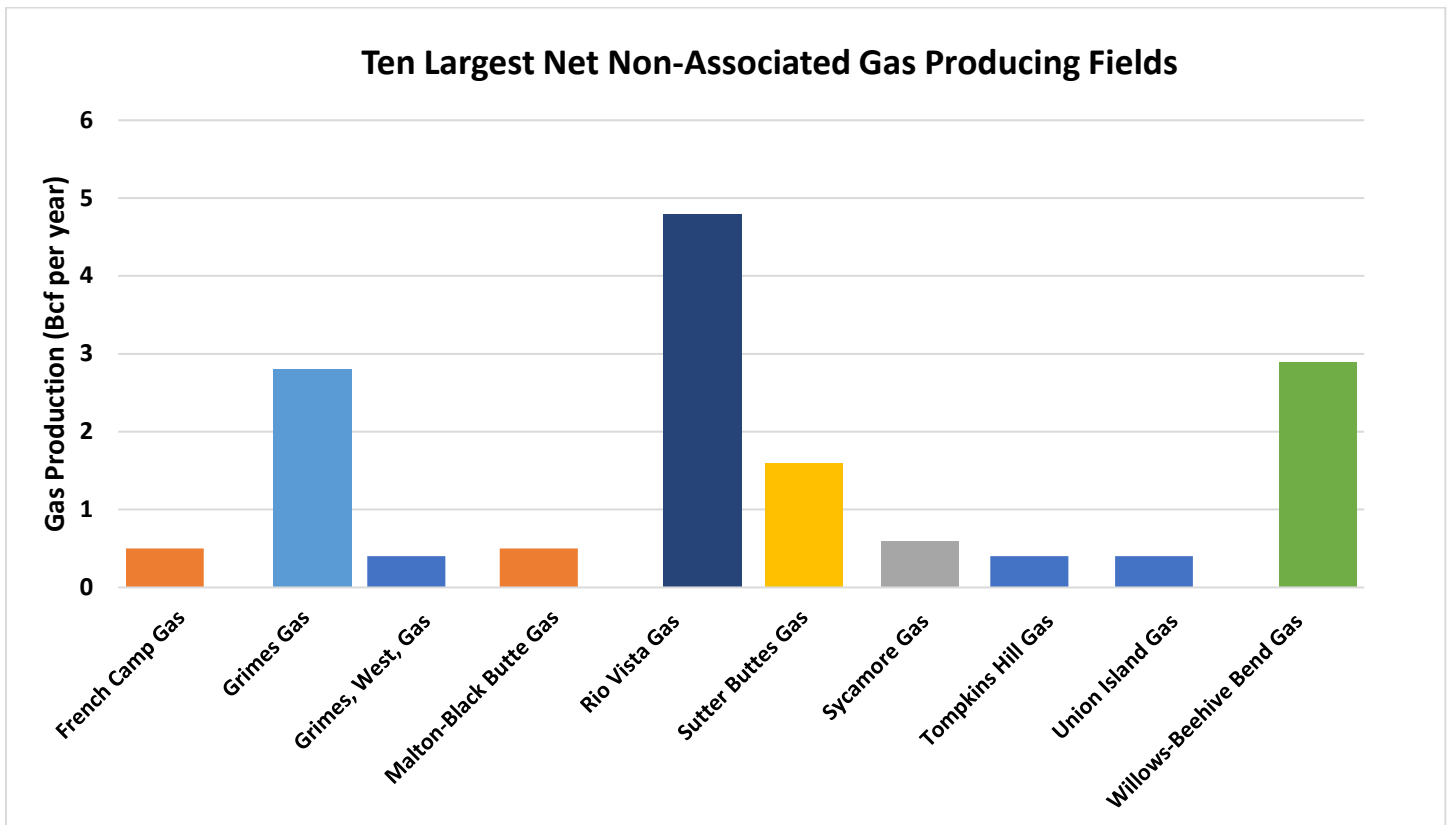


Figure 3. Ten largest fields net non-associated gas production in 2017.

Gas Storage

Gas withdrawn from underground gas storage facilities during 2017 totaled 156.0 Bcf, while gas injected was 152.9 Bcf, yielding a net decrease in storage of 3.1 Bcf.

Price

According to the U.S. Energy Information Administration, the average Natural Gas Citygate Price in California for 2017 was \$3.37 per Mcf. The January 2017 price of \$3.87 represented the high for the year with \$2.95 in October being the lowest.

NOTE ON CONFIDENTIAL PRODUCTION:

Individual confidential well production is not available on Well Search (<https://secure.conservation.ca.gov/WellSearch>). However, confidential production data is included in Pool, Area, and Field totals of this report. It is also included in District, County, Statewide, and Operator totals.

California Oil Production

Figure 4 depicts California oil production over time (including Federal OCS production).

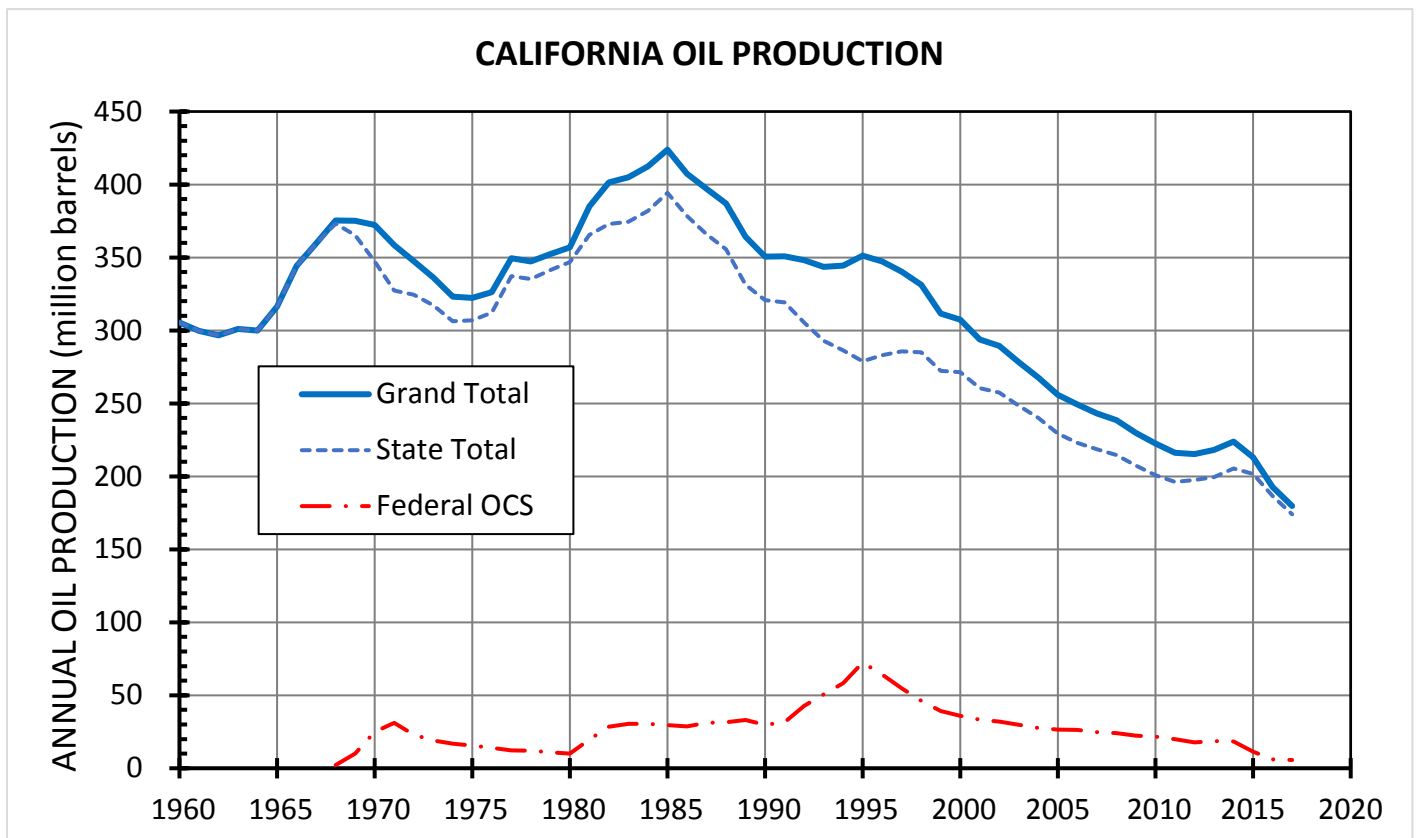


Figure 4. California oil production.

California Gas Production

Figure 5 depicts California total gas production (associated and non-associated) over time (including Federal OCS production).

CALIFORNIA GAS PRODUCTION

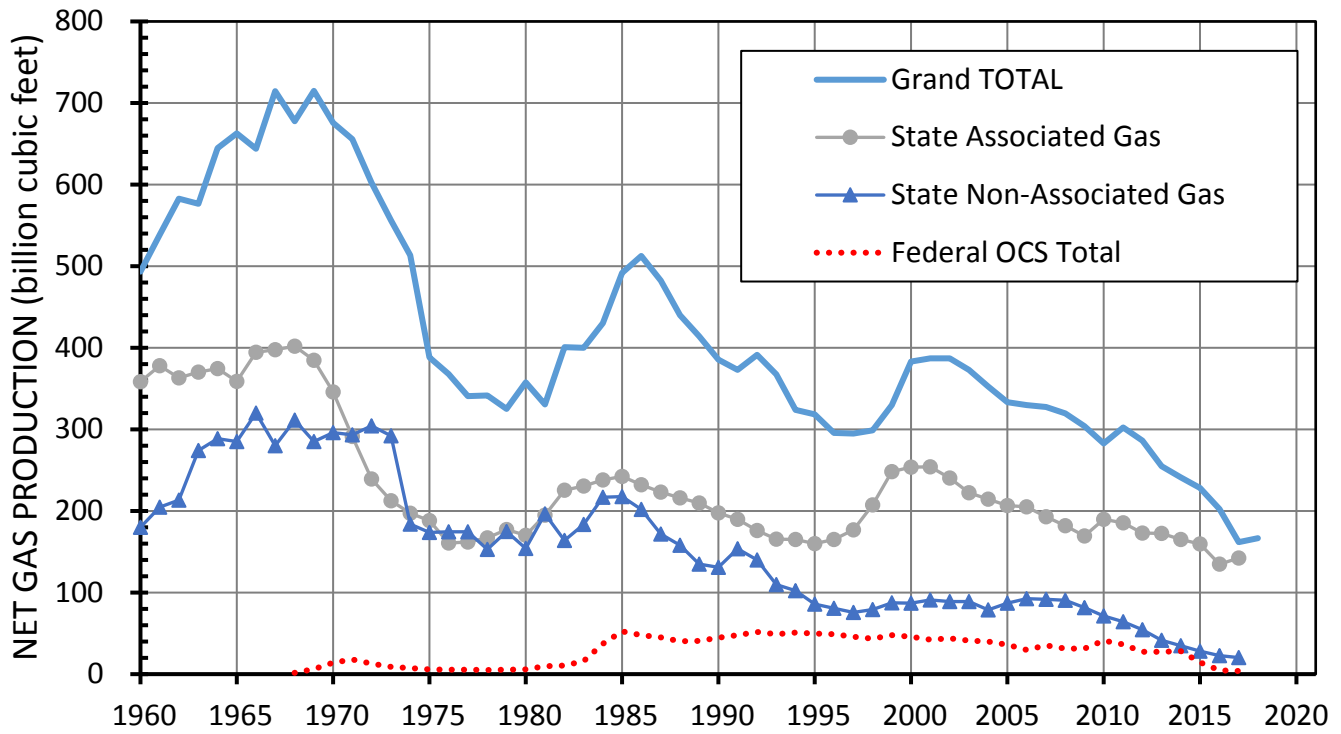
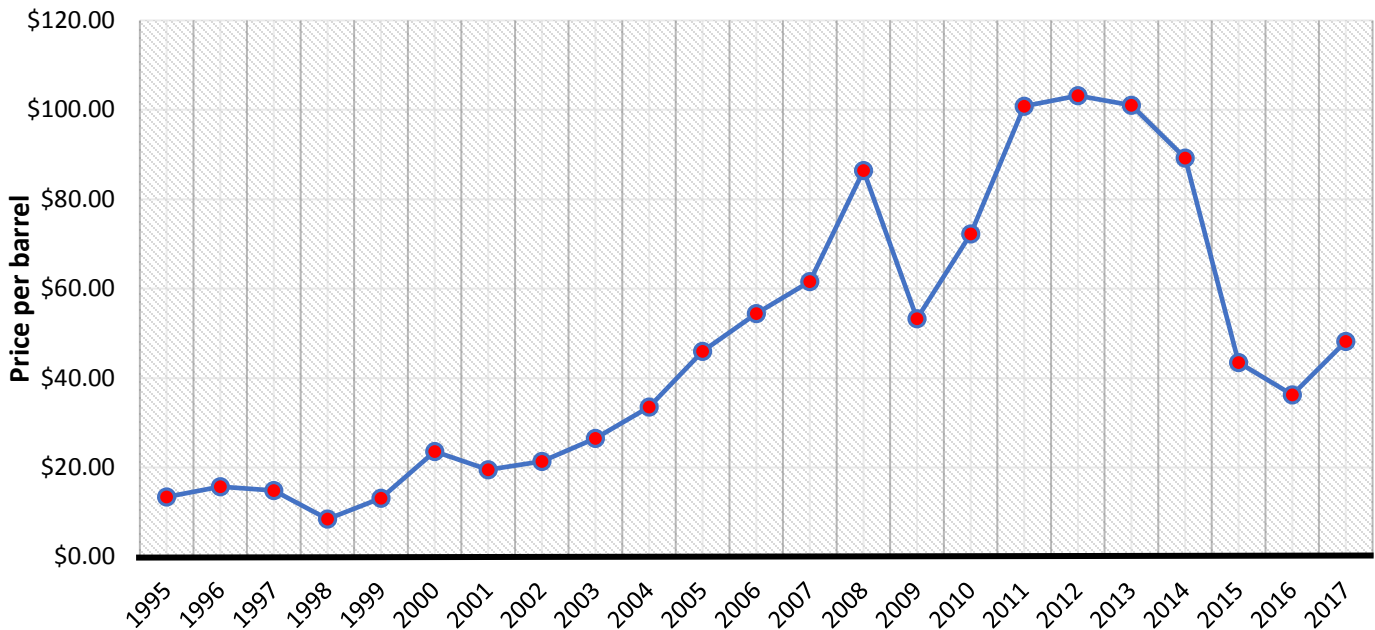
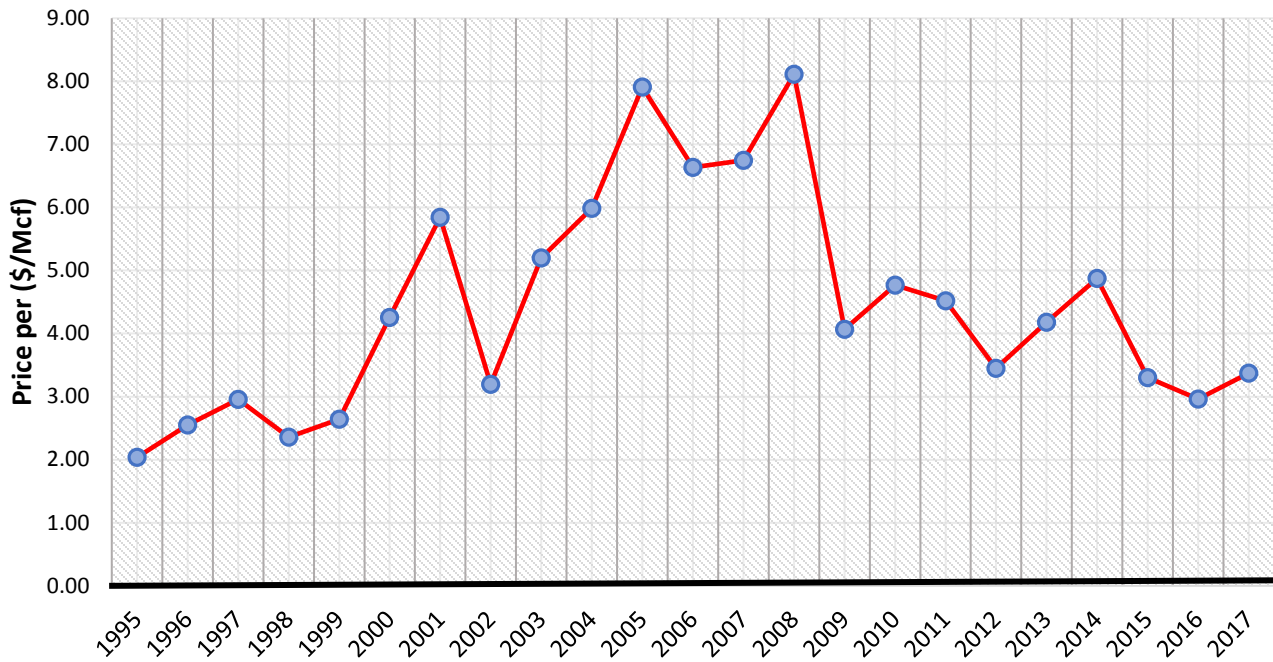


Figure 5. California total gas production.

California Oil Average Price by Year



California Natural Gas Average Price by Year



CALIFORNIA 2017 INJECTION

Injection

The table below lists the injection volumes for 2017. Water flood, water disposal, steam flood, and cyclic steam operations all decreased from 2016 to 2017, while gas injection increased from 2016 to 2017. There has been no recorded air injection over the past five years.

Injection Rate (MMbbl or Bcf* per year)

Without Federal OCS Injection

| Year | 2017 | 2016 | 2015 | 2014 | 2013 |
|-----------------------|---------|---------|---------|---------|---------|
| Water Flood | 1,619.6 | 1,636.2 | 1,571.2 | 1,458.7 | 1,418.6 |
| Water Disposal | 694.3 | 734.7 | 919.8 | 909.2 | 837.1 |
| Steam Flood | 395.9 | 414.1 | 448.8 | 430.1 | 376.2 |
| Cyclic-Steam | 133.2 | 149.4 | 193.2 | 184.8 | 168.1 |
| Gas Injection* | 152.9 | 112.4 | 197.3 | 273.4 | 178.5 |
| Air Injection* | 0 | 0 | 0 | 0 | 0 |

OIL, ASSOCIATED GAS AND WATER PRODUCTION BY DISTRICT AND FIELD

Oil produced as condensate from dry gas wells is not included in the totals in the table below.

| District 1 Field Name | Oil Produced (bbl) | Net Gas Production (Mcf) | Water Produced (bbl) |
|-----------------------|--------------------|--------------------------|----------------------|
| Any Field | 0 | 0 | 0 |
| Bandini | 6,040 | 0 | 19,984 |
| Belmont Offshore | 494,100 | 257,462 | 9,798,167 |
| Beverly Hills | 462,641 | 568,267 | 6,501,623 |
| Brea-Olinda | 986,856 | 805,663 | 6,376,074 |
| Cheviot Hills | 40,830 | 41,186 | 125,232 |
| Chino-Soquel | 540 | 0 | 0 |
| Coyote, East | 210,781 | 67,421 | 4,765,957 |
| Dominguez | 28,000 | 40,529 | 52,778 |
| El Segundo | 24,009 | 4,877 | 354,683 |
| Esperanza | 4,847 | 771 | 1,665 |
| Howard Townsite | 6,829 | 17,101 | 1,368 |
| Huntington Beach | 1,589,545 | 484,151 | 64,832,982 |
| Huntington Beach | 425,227 | 78,427 | 9,465,821 |
| Hyperion | 10,331 | 0 | 1,517 |
| Inglewood | 2,032,002 | 915,970 | 123,204,570 |
| Las Cienegas | 200,650 | 179,524 | 2,320,254 |
| Long Beach | 1,369,414 | 574,481 | 33,787,791 |
| Long Beach Airport | 7,993 | 756 | 39,396 |
| Los Angeles City | 7,903 | 9,750 | 19,299 |
| Los Angeles Downtown | 30,110 | 24,516 | 599,172 |
| Los Angeles, East | 0 | 41 | 0 |
| Mahala | 7,325 | 5,130 | 3,496 |
| Montebello | 416,541 | 226,292 | 32,857,423 |
| Newport | 0 | 29,489 | 0 |
| Newport, West | 49,263 | 74,398 | 1,365,976 |
| Newport, West | 21,673 | 11,906 | 302,165 |
| Olive | 54,619 | 7,175 | 91,795 |
| Playa Del Rey | 48,765 | 115,047 | 978,888 |
| Potrero (ABD) | 0 | 0 | 0 |
| Prado-Corona | 0 | 0 | 0 |
| Richfield | 236,271 | 52,189 | 4,547,421 |

| District 1 Field Name | Oil Produced (bbl) | Net Gas Production (Mcf) | Water Produced (bbl) |
|---------------------------------------------|--------------------|--------------------------|----------------------|
| Rosecrans, South | 8,623 | 7,725 | 18,003 |
| Salt Lake | 48,466 | 37,054 | 208,361 |
| Salt Lake, South | 11,496 | 49,780 | 980,393 |
| San Vicente | 218,810 | 218,476 | 701,306 |
| Sansinena | 173,049 | 174,119 | 311,400 |
| Santa Fe Springs | 806,219 | 249,782 | 46,961,378 |
| Sawtelle | 158,776 | 51,751 | 507,855 |
| Seal Beach | 376,686 | 291,507 | 7,041,085 |
| Torrance | 324,043 | 68,870 | 5,824,775 |
| Walnut | 5,404 | 0 | 5,353 |
| Whittier | 67,139 | 158,069 | 66,637 |
| Wilmington | 8,366,854 | 3,064,295 | 434,167,928 |
| Wilmington | 3,265,618 | 646,654 | 142,361,122 |
| District 1 Onshore Production Total | 12,255,161 | 5,863,115 | 434,090,845 |
| District 1 Offshore Production Total | 10,472,172 | 3,817,814 | 509,101,242 |
| District 1 Production Total | 22,727,333 | 9,680,929 | 943,192,087 |

| District 2 Field Name | Oil Produced (bbl) | Net Gas Production (Mcf) | Water Produced (bbl) |
|------------------------------|---------------------------|---------------------------------|-----------------------------|
| Aliso Canyon | 82,101 | 201,869 | 734,876 |
| Any Field | 0 | 0 | 0 |
| Bardsdale | 145,029 | 243,826 | 968,625 |
| Big Mountain | 15,267 | 62,245 | 32,034 |
| Cabrillo | 19,054 | 49,305 | 36,501 |
| Canada Larga | 707 | 0 | 965 |
| Cascade | 116,474 | 174,795 | 147,428 |
| Castaic Hills | 6,411 | 1,492 | 8,318 |
| Chaffee Canyon | 1,663 | 20,187 | 863 |
| Del Valle | 26,041 | 28,175 | 190,497 |
| Eureka Canyon | 735 | 963 | 3,918 |
| Fillmore | 0 | 0 | 0 |
| Hasley Canyon | 28,362 | 5,157 | 52,965 |
| Holser | 14,945 | 15,063 | 12,753 |
| Honor Rancho | 6,105 | 1,173,769 | 9,763 |
| District 2 Field Name | Oil Produced (bbl) | Net Gas Production (Mcf) | Water Produced (bbl) |

| | | | |
|------------------------------|---------------------------|---------------------------------|-----------------------------|
| Hopper Canyon | 0 | 2,984 | 0 |
| Montalvo, West | 191,107 | 175,038 | 357,157 |
| Montalvo, West | 128,407 | 41,236 | 755,193 |
| Moorpark West | 2,904 | 1,158 | 6,172 |
| Newhall | 0 | 0 | 0 |
| Newhall-Potrero | 60,130 | 83,166 | 112,531 |
| Oak Canyon | 21,536 | 44,352 | 97,939 |
| Oak Park | 9,654 | 3,299 | 23,914 |
| Oakridge | 104,659 | 78,669 | 781,094 |
| Oat Mountain | 64,970 | 89,104 | 67,739 |
| Ojai | 190,154 | 764,391 | 410,765 |
| Oxnard | 385,262 | 21,824 | 431,285 |
| Piru Creek (ABD) | 0 | 0 | 0 |
| Placerita | 574,985 | 0 | 24,510,647 |
| Ramona | 34,675 | 70,302 | 39,058 |
| Ramona, North | 0 | 0 | 0 |
| Rincon | 198,019 | 196,469 | 2,382,653 |
| Rincon | 3,967 | 109 | 56,945 |
| San Miguelito | 324,120 | 301,995 | 3,887,658 |
| Santa Clara Avenue | 33,689 | 19,286 | 76,606 |
| Santa Susana | 11,298 | 46,797 | 37,573 |
| Saticoy | 28,227 | 28,125 | 95,978 |
| Sespe | 332,726 | 839,831 | 326,483 |
| Shiells Canyon | 55,303 | 256,829 | 102,099 |
| Simi | 0 | 0 | 0 |
| South Mountain | 485,043 | 749,165 | 500,002 |
| Tapia | 15,278 | 1,767 | 655,553 |
| Tapo Canyon, South | 10,250 | 2,937 | 4,964 |
| Tapo Ridge | 0 | 0 | 0 |
| Tapo, North | 0 | 0 | 0 |
| Temescal | 65,454 | 64,440 | 223,574 |
| Timber Canyon | 23,236 | 65,614 | 4,242 |
| Torrey Canyon | 89,253 | 146,370 | 96,736 |
| Ventura | 4,077,487 | 2,242,630 | 41,396,372 |
| Wayside Canyon | 11,090 | 2,086 | 26,976 |
| District 2 Field Name | Oil Produced (bbl) | Net Gas Production (Mcf) | Water Produced (bbl) |
| West Mountain | 12,933 | 10,003 | 6,647 |

| | | | |
|---------------------------------------------|------------------|------------------|-------------------|
| District 2 Onshore Production Total | 7,813,636 | 8,151,675 | 79,259,959 |
| District 2 Offshore Production Total | 195,074 | 175,147 | 414,102 |
| District 2 Production Total | 8,008,710 | 8,326,822 | 79,674,061 |

| District 3 Field Name | Oil Produced (bbl) | Net Gas (Mcf) | Water Produced (bbl) |
|---------------------------------------------|---------------------------|----------------------|-----------------------------|
| Any Field | 27,600 | 132,889 | 1,029,533 |
| Arroyo Grande | 546,411 | 472,859 | 10,524,747 |
| Barham Ranch | 83,642 | 231,884 | 164,492 |
| | | | |
| Careaga Canyon | 5,109 | 28,261 | 301,263 |
| Casmalia | 112,011 | 18,329 | 5,981,092 |
| Cat Canyon | 1,547,485 | 648,423 | 11,273,091 |
| Cuyama, South | 176,822 | 111,550 | 13,182,936 |
| Elwood | 0 | 0 | 0 |
| Elwood, South, Offshore | 0 | 1,836 | 0 |
| Four Deer (ABD) | 2,256 | 4,149 | 17,809 |
| Jesus Maria | 0 | 0 | 0 |
| La Goleta Gas | 0 | 0 | 0 |
| Lompoc | 256,470 | 230,862 | 18,302,847 |
| Los Alamos | 7,816 | 6,764 | 0 |
| Lynch Canyon | 230,371 | 0 | 4,810,912 |
| McCool Ranch | 8,728 | 0 | 1,163,452 |
| Monroe Swell | 0 | 0 | 0 |
| Morales Canyon | 0 | 0 | 0 |
| Orcutt | 908,855 | 798,565 | 33,454,972 |
| Paris Valley | 0 | 0 | 0 |
| Russell Ranch | 47,517 | 84,466 | 1,070,617 |
| San Ardo | 7,237,786 | 1,015,500 | 127,768,930 |
| Santa Maria Valley | 126,779 | 106,562 | 2,816,149 |
| Sargent | 23,656 | 1,014 | 29,832 |
| Zaca | 187,267 | 1,322 | 7,775,173 |
| District 3 Onshore Production Total | 11,536,581 | 3,893,399 | 239,667,847 |
| District 3 Offshore Production Total | 0 | 1,836 | 0 |
| District 3 Production Total | 11,536,581 | 3,895,235 | 239,667,847 |

| District 4 Field Name | Oil Produced (bbl) | Net Gas (Mcf) | Water Produced (bbl) |
|------------------------------|---------------------------|----------------------|-----------------------------|
| Ant Hill | 14,770 | 2,772 | 1,436,211 |
| Antelope Hills | 102,598 | 5,090 | 584,269 |
| Antelope Hills, North | 258,651 | 0 | 2,615,568 |
| Any Field | 445,378 | 450,438 | 395,805 |
| Asphalto | 171,474 | 3,957,372 | 9,614,145 |
| Beer Nose | 6,165 | 6,347 | 440 |
| Belgian Anticline | 25,116 | 79,059 | 317,555 |
| Bellevue | 22,931 | 13,752 | 667,475 |
| Bellevue, West | 23,428 | 16,014 | 179,867 |
| Belridge, North | 1,893,487 | 2,204,037 | 30,630,602 |
| Belridge, South | 21,165,892 | 8,112,253 | 313,822,415 |
| Blackwells Corner | 10,916 | 0 | 44,198 |
| Bowerbank | 0 | 0 | 0 |
| Buena Vista | 1,208,354 | 13,311,774 | 49,976,053 |
| Calders Corner | 0 | 0 | 0 |
| Canal | 15,894 | 16,647 | 148,663 |
| Canfield Ranch | 73,804 | 95,159 | 452,741 |
| Carneros Creek | 17,097 | 26,543 | 51,113 |
| Chico-Martinez | 26,745 | 0 | 240,034 |
| Cienaga Canyon | 14,062 | 58,445 | 222,159 |
| Coles Levee, North | 169,027 | 158,918 | 736,727 |
| Coles Levee, South | 63,352 | 825,445 | 72,206 |
| Comanche Point | 15,644 | 0 | 568,397 |
| Cymric | 16,159,585 | 2,768,987 | 122,464,701 |
| Deer Creek | 27,827 | 0 | 2,835,459 |
| Deer Creek, North | 688 | 0 | 4,179 |
| Devils Den | 9,005 | 346 | 62,304 |
| Dyer Creek | 6,237 | 0 | 427,496 |
| Edison | 558,525 | 119,533 | 9,177,392 |
| Edison, Northeast | 537 | 0 | 1,199 |
| Elk Hills | 9,110,083 | 56,159,681 | 139,548,826 |
| Fruitvale | 386,181 | 122,262 | 6,769,011 |
| Greeley | 127,190 | 184,640 | 2,579,599 |
| Jasmin | 163,350 | 0 | 19,010,461 |
| District 4 Field Name | Oil Produced (bbl) | Net Gas (Mcf) | Water Produced (bbl) |
| Jerry Slough (ABD) | 2,508 | 0 | 0 |

| | | | |
|------------------------------|---------------------------|----------------------|-----------------------------|
| Kern Bluff | 11,273 | 0 | 1,018,153 |
| Kern Front | 3,684,493 | 54,587 | 153,483,121 |
| Kern River | 21,935,328 | 10,266,743 | 217,926,966 |
| Landslide | 24,669 | 25,274 | 1,053,595 |
| Los Lobos | 289 | 0 | 0 |
| Lost Hills | 9,504,333 | 4,454,003 | 94,900,949 |
| Lost Hills, Northwest | 17,625 | 248 | 469,801 |
| McDonald Anticline | 51,260 | 8,625 | 1,083,898 |
| McKittrick | 3,004,060 | 147,185 | 29,915,646 |
| Midway-Sunset | 22,090,325 | 4,500,559 | 190,586,460 |
| Monument Junction | 83,653 | 245,352 | 766,809 |
| Mount Poso | 1,464,138 | 32,923 | 25,316,261 |
| Mountain View | 80,622 | 40,538 | 493,889 |
| Paloma | 14,478 | 54,778 | 18,387 |
| Pioneer | 1,981 | 3,500 | 419 |
| Pleito | 714,593 | 364,016 | 1,051,840 |
| Poso Creek | 4,419,307 | 759,127 | 174,100,353 |
| Railroad Gap | 98,624 | 1,911,510 | 1,567,850 |
| Rio Bravo | 225,845 | 336,019 | 5,716,359 |
| Rio Viejo | 53,033 | 16,880 | 99,360 |
| Rose | 264,067 | 122,677 | 1,215,603 |
| Rosedale | 9,690 | 0 | 5,981 |
| Rosedale Ranch | 120,298 | 94,749 | 6,081,529 |
| Round Mountain | 2,488,607 | 51,677 | 170,013,969 |
| San Emidio Nose | 4,263 | 4,657 | 7,077 |
| Semitropic | 26,254 | 14,981 | 20,370 |
| Shafter, North | 501,419 | 444,785 | 1,633,992 |
| Stockdale | 108,310 | 41,717 | 48,933 |
| Strand | 6,366 | 4,804 | 20,584 |
| Tejon | 232,106 | 72,378 | 18,519,412 |
| Tejon Hills | 7,913 | 513 | 242,014 |
| Tejon, North | 32,599 | 267,290 | 75,135 |
| Temblor Ranch | 214 | 0 | 85,600 |
| Ten Section | 65,128 | 30,277 | 1,775,117 |
| District 4 Field Name | Oil Produced (bbl) | Net Gas (Mcf) | Water Produced (bbl) |
| Union Avenue | 5,897 | 9,100 | 22,794 |
| Valpredo | 0 | 0 | 0 |

| | | | |
|---------------------------------------------|--------------------|--------------------|----------------------|
| Wasco | 0 | 0 | 0 |
| Welcome Valley | 0 | 0 | 0 |
| Wheeler Ridge | 59,773 | 43,678 | 459,703 |
| White Wolf | 11,797 | 6,235 | 4,548 |
| Yowlumne | 72,457 | 49,604 | 2,283,501 |
| District 4 Onshore Production Total | 123,793,588 | 113,176,503 | 1,817,743,248 |
| District 4 Offshore Production Total | 0 | 0 | 0 |
| District 4 Production Total | 123,793,588 | 113,176,503 | 1,817,743,248 |

| District 5 Field Name | Oil Produced (bbl) | Net Gas (Mcf) | Water Produced (bbl) |
|---------------------------------------------|---------------------------|----------------------|-----------------------------|
| Any Field | 28,326 | 15,464 | 114,359 |
| Bitterwater | 1,394 | 0 | 300 |
| Burrel | 11,859 | 14,635 | 1,583,883 |
| Burrel, Southeast | 0 | 0 | 0 |
| Camden | 0 | 0 | 0 |
| Coalinga | 6,574,515 | 257,251 | 75,809,209 |
| Coalinga, East, Extension | 4,137 | 3,318 | 263,326 |
| Guijarral Hills | 2,377 | 1,504 | 22,856 |
| Helm | 58,157 | 35,394 | 434,514 |
| Jacalitos | 93,188 | 25,070 | 405,869 |
| Kettleman City (ABD) | 0 | 0 | 0 |
| Kettleman Middle Dome | 39,989 | 66,938 | 94,061 |
| Kettleman North Dome | 99,884 | 67,833 | 1,321,329 |
| Kreyenhagen (ABD) | 0 | 0 | 0 |
| Pleasant Valley | 0 | 0 | 0 |
| Pyramid Hills | 44,603 | 2,146 | 157,249 |
| Raisin City | 148,052 | 76,143 | 4,472,903 |
| Riverdale | 75,225 | 40,456 | 295,223 |
| San Joaquin | 3,252 | 1,605 | 106,727 |
| Tulare Lake | 0 | 0 | 0 |
| Vallecitos | 748,306 | 6,743,776 | 1,408,983 |
| District 5 Field Name | Oil Produced (bbl) | Net Gas (Mcf) | Water Produced (bbl) |
| Van Ness Slough | 0 | 0 | 0 |
| District 5 Onshore Production Total | 7,933,264 | 7,351,533 | 86,490,791 |
| District 5 Offshore Production Total | 0 | 0 | 0 |
| District 5 Production Total | 7,933,264 | 7,351,533 | 86,490,791 |

| District 6 Field Name | Oil Produced (bbl) | Net Gas (Mcf) | Water Produced (bbl) |
|---------------------------------------------|--------------------|---------------|----------------------|
| Half Moon Bay | 52 | 0 | 0 |
| La Honda | 0 | 0 | 0 |
| Livermore | 8,715 | 644 | 24,641 |
| Oil Creek | 0 | 0 | 0 |
| Petrolia | 0 | 0 | 0 |
| District 6 Onshore Production Total | 8,715 | 644 | 24,641 |
| District 6 Offshore Production Total | 0 | 0 | 0 |
| District 6 Production Total | 8,715 | 644 | 24,641 |

Summary

| District | Oil Produced (bbl) | Net Gas (Mcf) | Water Produced (bbl) |
|--------------------|--------------------|--------------------|----------------------|
| District 1 | 22,727,333 | 9,680,929 | 943,192,087 |
| District 2 | 8,008,710 | 8,326,822 | 79,674,061 |
| District 3 | 11,536,581 | 3,895,235 | 239,667,847 |
| District 4 | 123,793,588 | 113,176,503 | 1,817,743,248 |
| District 5 | 7,933,264 | 7,351,533 | 86,490,791 |
| District 6 | 8,767 | 644 | 24,641 |
| State Total | 174,008,243 | 142,431,666 | 3,166,792,675 |

CONDENSATE, NON-ASSOCIATED GAS, AND WATER PRODUCTION BY DISTRICT AND FIELD

| District 1 Field Name | Condensate (bbl) | Net Gas (Mcf) | Water (bbl) |
|------------------------------------|------------------|---------------|-------------|
| Los Angeles Downtown | 0 | 863 | 0 |
| Prado-Corona | 0 | 0 | 0 |
| Seal Beach | 0 | 1,384 | 0 |
| Wilmington | 0 | 0 | 0 |
| District 1 Production Total | 0 | 2,247 | 0 |

| District 2 Field Name | Condensate (bbl) | Net Gas (Mcf) | Water (bbl) |
|------------------------------------|------------------|---------------|---------------|
| Aliso Canyon | 0 | 0 | 0 |
| Del Valle | 432 | 4,724 | 24,799 |
| Montalvo, West | 0 | 0 | 0 |
| Tapia | 0 | 0 | 0 |
| District 2 Production Total | 432 | 4,724 | 24,799 |

| District 3 Field Name | Condensate (bbl) | Net Gas (Mcf) | Water (bbl) |
|------------------------------------|------------------|---------------|---------------|
| Cuyama, South | 460 | 448 | 67,311 |
| La Goleta Gas | 0 | 0 | 0 |
| District 3 Production Total | 460 | 448 | 67,311 |

| District 4 Field Name | Condensate (bbl) | Net Gas (Mcf) | Water (bbl) |
|------------------------------|-------------------------|----------------------|--------------------|
| Any Field | 0 | 0 | 0 |
| Antelope Hills | 0 | 0 | 0 |
| Belgian Anticline | 0 | 10,155 | 0 |
| Bowerbank | 0 | 0 | 0 |
| Buena Vista | 0 | 79,600 | 0 |
| Cal Canal Gas | 19,006 | 60,209 | 117,891 |
| Canal | 0 | 0 | 0 |
| Coles Levee, North | 0 | 0 | 0 |
| Elk Hills | 0 | 1,283,078 | 0 |
| Monument Junction | 0 | 0 | 0 |
| Mountain View | 0 | 0 | 0 |
| District 4 Field Name | Condensate (bbl) | Net Gas (Mcf) | Water (bbl) |

| | | | |
|------------------------------------|---------------|------------------|----------------|
| Paloma | 0 | 0 | 0 |
| Railroad Gap | 0 | 0 | 0 |
| Rio Bravo | 5,660 | 34,881 | 81,635 |
| Semitropic | 0 | 0 | 0 |
| Strand | 0 | 0 | 0 |
| Ten Section | 0 | 0 | 0 |
| Trico Gas | 0 | 0 | 0 |
| District 4 Production Total | 24,666 | 1,467,923 | 199,526 |

| District 5 Field Name | Condensate (bbl) | Net Gas (Mcf) | Water (bbl) |
|------------------------------------|------------------|----------------|--------------|
| Any Field | 0 | 0 | 0 |
| Chowchilla Gas | 0 | 0 | 0 |
| Gill Ranch Gas | 0 | 45,774 | 0 |
| Hollister | 0 | 0 | 0 |
| Kettleman North Dome | 0 | 0 | 0 |
| Merrill Avenue Gas | 0 | 0 | 0 |
| Merrill Avenue, Southeast, Gas | 0 | 83,204 | 547 |
| Moffat Ranch Gas | 0 | 278,438 | 535 |
| Oakdale Gas | 0 | 29 | 0 |
| District 5 Production Total | 0 | 407,445 | 1,082 |

| District 6 Field Name | Condensate (bbl) | Net Gas (Mcf) | Water (bbl) |
|-------------------------|------------------|---------------|-------------|
| Any Field | 0 | 118,547 | 2,941 |
| Afton Gas | 0 | 2,845 | 0 |
| Arbuckle Gas | 0 | 21,294 | 342 |
| Bounde Creek Gas | 0 | 115,918 | 1,000 |
| Brentwood, East, Gas | 0 | 0 | 0 |
| Buckeye Gas | 0 | 212,600 | 1,156 |
| Bunker Gas | 0 | 0 | 0 |
| Butte Sink Gas | 0 | 0 | 0 |
| Butte Slough Gas | 0 | 226,882 | 524 |
| Cache Creek Gas | 0 | 0 | 0 |
| Clarksburg Gas | 0 | 0 | 0 |
| District 6 Field Name | Condensate (bbl) | Net Gas (Mcf) | Water (bbl) |
| Collegeville, East, Gas | 0 | 0 | 0 |

| | | | |
|------------------------------|-------------------------|----------------------|--------------------|
| Compton Landing Gas | 0 | 14,598 | 2,597 |
| Conway Ranch Gas | 0 | 0 | 0 |
| Denverton Creek Gas | 190 | 121,081 | 4,630 |
| Dunnigan Hills Gas | 0 | 0 | 0 |
| Durham Gas | 0 | 0 | 0 |
| Dutch Slough Gas | 0 | 0 | 0 |
| East Islands Gas | 0 | 0 | 0 |
| Everglade Gas | 0 | 0 | 0 |
| French Camp Gas | 0 | 500,599 | 15,157 |
| Grimes Gas | 0 | 2,819,082 | 44,257 |
| Grimes, West, Gas | 0 | 356,518 | 2,251 |
| Grizzly Bluff Gas | 0 | 46,879 | 12 |
| Hood-Franklin Gas | 0 | 12,393 | 109 |
| Howells Point Gas | 0 | 0 | 0 |
| King Island Gas | 0 | 71,348 | 0 |
| Kirby Hill Gas | 0 | 0 | 0 |
| Kirk Gas | 0 | 124,998 | 1,928 |
| Kirkwood Gas | 0 | 2,149 | 99 |
| Knights Landing Gas | 0 | 0 | 0 |
| Larkin, West, Gas | 0 | 0 | 0 |
| Lathrop Gas | 0 | 240,721 | 6,785 |
| Lindsey Slough Gas | 183 | 355,023 | 3,993 |
| Little Butte Creek Gas | 0 | 0 | 0 |
| Lone Tree Creek Gas | 0 | 0 | 0 |
| Lone Star Gas | 0 | 77,740 | 461 |
| Los Medanos Gas | 0 | 35,886 | 87 |
| Maine Prairie Gas | 0 | 0 | 0 |
| Malton-Black Butte Gas | 0 | 493,635 | 11,191 |
| Medora Lake Gas | 79 | 2,265 | 232 |
| McMullin Ranch Gas | 0 | 0 | 0 |
| Millar Gas | 0 | 5,255 | 16 |
| Moon Bend Gas | 0 | 135,618 | 3,417 |
| Nicolaus Gas | 0 | 0 | 0 |
| Ord Bend Gas | 0 | 0 | 0 |
| Orland Gas | 0 | 0 | 0 |
| District 6 Field Name | Condensate (bbl) | Net Gas (Mcf) | Water (bbl) |
| Perkins Lake Gas | 0 | 0 | 0 |
| Pierce Road Gas | 0 | 33,726 | 3,015 |

| | | | |
|------------------------------------|---------------|-------------------|----------------|
| Putah Sink Gas | 0 | 0 | 0 |
| Rancho Capay Gas | 0 | 55,504 | 19 |
| Rice Creek Gas | 0 | 308,270 | 2,799 |
| Rice Creek, East, Gas | 0 | 159,702 | 289 |
| Rindge Tract Gas | 0 | 0 | 0 |
| Rio Vista Gas | 10,834 | 4,751,144 | 251,098 |
| River Island Gas | 0 | 39,712 | 173 |
| Robbins Gas | 0 | 0 | 0 |
| Roberts Island Gas | 0 | 0 | 0 |
| Ryer Island Gas | 177 | 119,394 | 300 |
| Sacramento Airport Gas | 0 | 0 | 0 |
| Stegeman Gas | 0 | 1,086 | 0 |
| Oakley, South, Gas | 0 | 0 | 0 |
| Sugarfield Gas | 0 | 0 | 0 |
| Suisun Bay Gas | 0 | 48,782 | 3,077 |
| Sutter Buttes Gas | 0 | 1,646,975 | 23,027 |
| Sutter City Gas | 0 | 200,451 | 3,680 |
| Sycamore Gas | 0 | 601,653 | 12,570 |
| Sycamore Slough Gas | 0 | 3,515 | 0 |
| Thornton, W.-Walnut Grove Gas | 0 | 0 | 0 |
| Tisdale Gas | 0 | 174,597 | 4,351 |
| Todhunters Lake Gas | 0 | 35,270 | 31 |
| Tompkins Hill Gas | 0 | 370,566 | 7,061 |
| Union Island Gas | 0 | 419,793 | 28,604 |
| Van Sickle Island Gas | 207 | 117,787 | 1,308 |
| Vernalis Gas | 0 | 69,709 | 325 |
| West Butte Gas | 0 | 110,054 | 1,682 |
| Williams Gas | 0 | 52,968 | 580 |
| Willow Slough Gas | 0 | 0 | 0 |
| Willows-Beehive Bend Gas | 0 | 2,912,646 | 59,639 |
| Winchester Lake Gas | 0 | 0 | 0 |
| Winters Gas | 0 | 40,040 | 77 |
| District 6 Production Total | 11,670 | 18,387,218 | 506,890 |

| District | Condensate (bbl) | Net Gas (Mcf) | Water (bbl) |
|------------|------------------|---------------|-------------|
| District 1 | 0 | 2,247 | 0 |
| District 2 | 432 | 4,724 | 24,799 |

| | | | |
|--------------------|---------------|-------------------|----------------|
| District 3 | 460 | 448 | 67,311 |
| District 4 | 24,666 | 1,467,923 | 199,526 |
| District 5 | 0 | 407,445 | 1,082 |
| District 6 | 11,670 | 18,387,218 | 506,890 |
| State Total | 37,228 | 20,270,005 | 799,608 |

STEAM AND WATER INJECTION BY DISTRICT AND FIELD

| District 1 Field Name | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
|------------------------------|---------------------------|--------------------------|-----------------------------|--------------------------|--------------------|
| Belmont Offshore | 0 | 0 | 0 | 2,639,980 | 2,639,980 |
| Beverly Hills | 0 | 0 | 39,662 | 1,113,458 | 1,153,120 |
| Brea-Olinda | 0 | 0 | 17,718 | 2,307,488 | 2,325,206 |
| Cheviot Hills | 0 | 0 | 7,327 | 0 | 7,327 |
| Chino-Soquel | 0 | 0 | 0 | 0 | 0 |
| Coyote, East | 0 | 0 | 0 | 2,443,768 | 2,443,768 |
| El Segundo | 0 | 0 | 14,700 | 0 | 14,700 |
| Huntington Beach | 0 | 0 | 0 | 28,715,197 | 28,715,197 |
| Inglewood | 0 | 0 | 0 | 41,729,160 | 41,729,160 |
| Las Cienegas | 0 | 0 | 0 | 891,302 | 891,302 |
| Long Beach | 0 | 0 | 0 | 6,399,560 | 6,399,560 |
| Long Beach Airport | 0 | 0 | 10,624 | 0 | 10,624 |
| Los Angeles Downtown | 0 | 0 | 0 | 238,654 | 238,654 |
| Mahala | 0 | 0 | 0 | 0 | 0 |
| Montebello | 0 | 0 | 0 | 10,273,893 | 10,273,893 |
| Newport, West | 5,706 | 8,833 | 0 | 96,260 | 110,799 |
| Playa Del Rey | 0 | 0 | 1,431 | 0 | 1,431 |
| Richfield | 0 | 0 | 0 | 1,959,244 | 1,959,244 |
| Rosecrans | 0 | 0 | 0 | 465,398 | 465,398 |
| San Vicente | 0 | 0 | 0 | 0 | 0 |
| Sansinena | 0 | 0 | 0 | 4,072 | 4,072 |
| District 1 Field Name | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
| Santa Fe Springs | 0 | 0 | 0 | 14,948,146 | 14,948,146 |
| Sawtelle | 0 | 0 | 0 | 191,707 | 191,707 |
| Seal Beach | 0 | 0 | 0 | 318,547 | 318,547 |
| Torrance | 0 | 0 | 3,704 | 1,612,534 | 1,616,238 |
| Whittier | 0 | 0 | 0 | 0 | 0 |
| Wilmington | 0 | 0 | 90,333 | 203,380,846 | 203,471,179 |

| District 2 Field Name | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
|------------------------------|---------------------------|--------------------------|-----------------------------|--------------------------|--------------------|
| Aliso Canyon | 0 | 0 | 308,658 | 79,132 | 387,790 |
| Bardsdale | 0 | 0 | 218,469 | 1,695 | 220,164 |

| | | | | | |
|------------------------------|---------------------------|--------------------------|-----------------------------|--------------------------|--------------------|
| Big Mountain | 0 | 0 | 0 | 0 | 0 |
| Cascade | 0 | 0 | 0 | 45,134 | 45,134 |
| Castaic Hills | 0 | 0 | 0 | 0 | 0 |
| Chaffee Canyon | 0 | 0 | 0 | 0 | 0 |
| Del Valle | 0 | 0 | 57,412 | 0 | 57,412 |
| Eureka Canyon | 0 | 0 | 6,296 | 0 | 6,296 |
| Hasley Canyon | 0 | 0 | 0 | 0 | 0 |
| Holser | 0 | 0 | 2,943 | 0 | 2,943 |
| Honor Rancho | 0 | 0 | 35,718 | 0 | 35,718 |
| Hopper Canyon | 0 | 0 | 0 | 0 | 0 |
| Montalvo, West | 0 | 0 | 176,203 | 80,334 | 256,537 |
| Newhall | 0 | 0 | 0 | 0 | 0 |
| Newhall-Potrero | 0 | 0 | 30,805 | 0 | 30,805 |
| Oak Canyon | 0 | 0 | 44,620 | 0 | 44,620 |
| Oak Park | 0 | 0 | 17,588 | 0 | 17,588 |
| Oakridge | 0 | 0 | 0 | 226,007 | 226,007 |
| Ojai | 0 | 0 | 150,969 | 0 | 150,969 |
| Oxnard | 41,875 | 0 | 203,651 | 0 | 245,526 |
| Placerita | 799,231 | 1,768,784 | 6,228,468 | 0 | 8,796,483 |
| Ramona | 0 | 0 | 19,421 | 0 | 19,421 |
| Rincon | 0 | 0 | 4,935 | 466,029 | 470,964 |
| San Miguelito | 0 | 0 | 0 | 1,195,975 | 1,195,975 |
| Santa Clara Avenue | 0 | 0 | 14,976 | 0 | 14,976 |
| District 2 Field Name | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
| Santa Susana | 0 | 0 | 0 | 0 | 0 |
| Saticoy | 0 | 0 | 0 | 23,408 | 23,408 |
| Sespe | 0 | 0 | 107,427 | 0 | 107,427 |
| Shiells Canyon | 0 | 0 | 30,348 | 0 | 30,348 |
| South Mountain | 0 | 0 | 35,723 | 93,320 | 129,043 |
| Tapia | 0 | 0 | 293,975 | 0 | 293,975 |
| Tapo, North | 0 | 0 | 0 | 0 | 0 |
| Temescal | 0 | 0 | 71,391 | 0 | 71,391 |
| Timber Canyon | 0 | 0 | 0 | 0 | 0 |
| Torrey Canyon | 0 | 0 | 0 | 0 | 0 |
| Ventura | 0 | 0 | 0 | 20,134,453 | 20,134,453 |
| West Mountain | 0 | 0 | 0 | 0 | 0 |

| District 3 Field Name | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
|----------------------------|--------------------|-------------------|----------------------|-------------------|-------------|
| Any Field | 0 | 0 | 2,565,163 | 0 | 2,565,163 |
| Arroyo Grande | 18,100 | 1,228,059 | 395,917 | 0 | 1,642,076 |
| Barham Ranch | 0 | 0 | 40,500 | 0 | 40,500 |
| Careaga Canyon | 0 | 0 | 103,994 | 0 | 103,994 |
| Casmalia | 0 | 0 | 1,935,086 | 0 | 1,935,086 |
| Cat Canyon | 729,895 | 0 | 2,492,235 | 388,338 | 3,610,468 |
| Cuyama, South | 0 | 0 | 0 | 4,503,528 | 4,503,528 |
| Elwood | 0 | 0 | 332 | 0 | 332 |
| Elwood, South, Offshore | 0 | 0 | 0 | 0 | 0 |
| Gaviota Offshore Gas (ABD) | 0 | 0 | 10,275 | 0 | 10,275 |
| Jesus Maria | 0 | 0 | 0 | 0 | 0 |
| Lompoc | 0 | 0 | 6,748,590 | 0 | 6,748,590 |
| Lynch Canyon | 246,379 | 353,880 | 1,208,714 | 0 | 1,808,973 |
| McCool Ranch | 0 | 0 | 349,940 | 0 | 349,940 |
| Monroe Swell | 0 | 0 | 0 | 0 | 0 |
| Orcutt | 264,408 | 0 | 2,062,535 | 10,461,512 | 12,788,455 |
| Paris Valley | 0 | 0 | 0 | 0 | 0 |
| Russell Ranch | 0 | 0 | 0 | 399,029 | 399,029 |
| San Ardo | 1,325,344 | 15,595,924 | 15,980,117 | 2,122,657 | 35,024,042 |
| District 3 Field Name | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
| Santa Maria Valley | 0 | 0 | 167,418 | 819,570 | 986,988 |
| Sargent | 0 | 0 | 13,076 | 0 | 13,076 |
| Zaca | 0 | 0 | 2,804,192 | 0 | 2,804,192 |

| District 4 Field Name | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
|-----------------------|--------------------|-------------------|----------------------|-------------------|-------------|
| Ant Hill | 0 | 0 | 588,180 | 0 | 588,180 |
| Antelope Hills, North | 56,162 | 422,445 | 256,262 | 0 | 734,869 |
| Any Field | 0 | 0 | 0 | 0 | 0 |
| Asphalto | 0 | 0 | 3,109,001 | 0 | 3,109,001 |
| Belgian Anticline | 0 | 0 | 0 | 18,680 | 18,680 |
| Bellevue | 0 | 0 | 160,077 | 0 | 160,077 |
| Bellevue, West | 0 | 0 | 81,597 | 0 | 81,597 |

| | | | | | |
|------------------------------|---------------------------|--------------------------|-----------------------------|--------------------------|--------------------|
| Belridge, North | 0 | 0 | 131,580 | 14,871,355 | 15,002,935 |
| Belridge, South | 1,204,415 | 30,576,027 | 61,136,536 | 49,343,907 | 142,260,885 |
| Blackwells Corner | 0 | 0 | 18,557 | 0 | 18,557 |
| Bowerbank | 0 | 0 | 290 | 0 | 290 |
| Buena Vista | 0 | 0 | 4,066,971 | 11,728,009 | 15,794,980 |
| Cal Canal Gas | 0 | 0 | 45,234 | 0 | 45,234 |
| Canal | 0 | 0 | 16,653 | 0 | 16,653 |
| Canfield Ranch | 0 | 0 | 156,538 | 0 | 156,538 |
| Chico-Martinez | 0 | 0 | 0 | 0 | 0 |
| Cienaga Canyon | 0 | 0 | 0 | 0 | 0 |
| Coles Levee, North | 0 | 0 | 0 | 355,127 | 355,127 |
| Coles Levee, South | 0 | 0 | 22,413 | 0 | 22,413 |
| Comanche Point | 0 | 0 | 191,455 | 0 | 191,455 |
| Cymric | 19,025,632 | 6,811,102 | 1,388,551 | 0 | 27,225,285 |
| Deer Creek | 0 | 0 | 638,075 | 0 | 638,075 |
| Devils Den | 0 | 0 | 330 | 0 | 330 |
| Edison | 445,057 | 217,811 | 2,305,315 | 0 | 2,968,183 |
| Edison, Northeast | 0 | 0 | 0 | 0 | 0 |
| Elk Hills | 0 | 0 | 21,882,988 | 27,952,193 | 49,835,181 |
| English Colony | 0 | 0 | 0 | 0 | 0 |
| Fruitvale | 0 | 0 | 3,008,990 | 85,635 | 3,094,625 |
| District 4 Field Name | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
| Greeley | 0 | 0 | 787,997 | 0 | 787,997 |
| Jasmin | 0 | 0 | 270,100 | 0 | 270,100 |
| Kern Bluff | 0 | 0 | 412,600 | 0 | 412,600 |
| Kern Front | 524,796 | 7,496,306 | 641,422 | 0 | 8,662,524 |
| Kern River | 2,578,038 | 25,202,212 | 2,495,918 | 0 | 30,276,168 |
| Landslide | 0 | 0 | 0 | 263,675 | 263,675 |
| Lost Hills | 376,060 | 7,583,279 | 4,564,475 | 27,610,275 | 40,134,089 |
| Lost Hills, Northwest | 0 | 0 | 57,027 | 0 | 57,027 |
| McDonald Anticline | 0 | 0 | 258,878 | 0 | 258,878 |
| McKittrick | 1,024,146 | 3,943,587 | 14,076,671 | 0 | 19,044,404 |
| Midway-Sunset | 18,269,692 | 26,987,320 | 18,841,291 | 0 | 64,098,303 |
| Mount Poso | 34,475 | 1,564 | 4,337,412 | 1,431,861 | 5,805,312 |
| Mountain View | 0 | 0 | 48,403 | 530 | 48,933 |
| Paloma | 0 | 0 | 3,309 | 0 | 3,309 |
| Pleito | 0 | 0 | 262,050 | 0 | 262,050 |

| | | | | | |
|-----------------|-----------|-----------|------------|-------------|-------------|
| Poso Creek | 2,694,097 | 6,462,144 | 49,012,638 | 0 | 58,168,879 |
| Rio Bravo | 0 | 0 | 0 | 1,941,740 | 1,941,740 |
| Rio Viejo | 0 | 0 | 27,999 | 0 | 27,999 |
| Rose | 0 | 0 | 314,605 | 0 | 314,605 |
| Rosedale | 0 | 0 | 6,318 | 0 | 6,318 |
| Rosedale Ranch | 0 | 0 | 1,833,371 | 0 | 1,833,371 |
| Round Mountain | 0 | 3,783,920 | 262,811 | 52,604,222 | 56,650,953 |
| San Emidio Nose | 0 | 0 | 0 | 0 | 0 |
| Semitropic | 0 | 0 | 0 | 0 | 0 |
| Shafter, North | 0 | 0 | 540,160 | 0 | 540,160 |
| Strand | 0 | 0 | 0 | 0 | 0 |
| Tejon | 0 | 0 | 88,774 | 4,462,544 | 4,551,318 |
| Tejon Hills | 0 | 0 | 76,713 | 6,294 | 83,007 |
| Tejon, North | 0 | 0 | 0 | 20,335 | 20,335 |
| Temblor Ranch | 0 | 0 | 26,427 | 0 | 26,427 |
| Ten Section | 0 | 0 | 735,634 | 0 | 735,634 |
| Trico Gas | 5,706 | 8,833 | 185,499 | 319,729,214 | 319,929,252 |
| Union Avenue | 0 | 0 | 0 | 0 | 0 |
| Wheeler Ridge | 0 | 0 | 93,041 | 29,021 | 122,062 |
| Yowlumne | 0 | 0 | 0 | 386,208 | 386,208 |

| District 5 Field Name | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
|---------------------------|--------------------|-------------------|----------------------|-------------------|-------------|
| Any Field | 0 | 0 | 85,530 | 0 | 85,530 |
| Burrel | 0 | 0 | 616,993 | 0 | 616,993 |
| Burrel, Southeast | 0 | 0 | 0 | 0 | 0 |
| Coalinga | 1,023,791 | 12,162,684 | 784,544 | 4,831,624 | 18,802,643 |
| Coalinga, East, Extension | 0 | 0 | 5,645,924 | 0 | 5,645,924 |
| Gill Ranch Gas | 0 | 0 | 3 | 0 | 3 |
| Helm | 0 | 0 | 164,871 | 0 | 164,871 |
| Jacalitos | 0 | 0 | 32,499 | 309,218 | 341,717 |
| Kettleman Middle Dome | 0 | 0 | 27,218 | 0 | 27,218 |
| Kettleman North Dome | 0 | 0 | 250,673 | 0 | 250,673 |
| Pleasant Valley | 0 | 0 | 0 | 0 | 0 |
| Pyramid Hills | 0 | 0 | 0 | 54,672 | 54,672 |
| Raisin City | 0 | 0 | 1,677,286 | 0 | 1,677,286 |

| | | | | | |
|-----------------|---|---|--------|---|--------|
| Riverdale | 0 | 0 | 77,822 | 0 | 77,822 |
| San Joaquin | 0 | 0 | 34,500 | 0 | 34,500 |
| Tulare Lake | 0 | 0 | 0 | 0 | 0 |
| Vallecitos | 0 | 0 | 873 | 0 | 873 |
| Van Ness Slough | 0 | 0 | 0 | 0 | 0 |

| District 6 Field Name | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
|--------------------------|--------------------|-------------------|----------------------|-------------------|-------------|
| Any Field | 0 | 0 | 68 | 0 | 68 |
| French Camp Gas | 0 | 0 | 0 | 0 | 0 |
| Grimes Gas | 0 | 0 | 0 | 0 | 0 |
| Kirkwood Gas | 0 | 0 | 0 | 0 | 0 |
| La Honda | 0 | 0 | 0 | 0 | 0 |
| Lathrop Gas | 0 | 0 | 0 | 0 | 0 |
| Lindsey Slough Gas | 0 | 0 | 88,795 | 0 | 88,795 |
| Livermore | 0 | 0 | 8,317 | 0 | 8,317 |
| Lodi Gas | 0 | 0 | 4,934 | 0 | 4,934 |
| Malton-Black Butte Gas | 0 | 0 | 0 | 0 | 0 |
| Oil Creek | 0 | 0 | 0 | 0 | 0 |
| District 6 Field Name | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
| Princeton Gas | 0 | 0 | 0 | 0 | 0 |
| Rice Creek Gas | 0 | 0 | 900 | 0 | 900 |
| Rio Vista Gas | 0 | 0 | 91,510 | 0 | 91,510 |
| Sutter Buttes Gas | 0 | 0 | 0 | 0 | 0 |
| Sutter City Gas | 0 | 0 | 9,237 | 0 | 9,237 |
| Union Island Gas | 0 | 0 | 0 | 0 | 0 |
| Willows-Beehive Bend Gas | 0 | 0 | 0 | 0 | 0 |

| District | Cyclic Steam (bbl) | Steam Flood (bbl) | Water Disposal (bbl) | Water Flood (bbl) | Total (bbl) |
|----------------------|--------------------|-------------------|----------------------|-------------------|---------------|
| District 1 Injection | 16,054 | 21,945 | 527,006 | 958,881,051 | 959,446,056 |
| District 2 Injection | 2,064,682 | 4,097,829 | 20,175,030 | 55,079,254 | 81,426,795 |
| District 3 Injection | 6,997,767 | 41,673,810 | 99,055,422 | 55,145,997 | 202,872,996 |
| District 4 Injection | 121,726,890 | 320,438,711 | 550,252,265 | 539,579,799 | 1,531,997,665 |
| District 5 Injection | 2,362,624 | 29,713,906 | 23,834,239 | 10,909,336 | 66,820,105 |

| | | | | | |
|----------------------|--------------------|--------------------|--------------------|----------------------|----------------------|
| District 6 Injection | 0 | 0 | 458,433 | 0 | 458,433 |
| State Total | 133,168,017 | 395,946,201 | 694,302,395 | 1,619,595,437 | 2,843,012,050 |

CALIFORNIA 2017 NEW WELL OPERATIONS

The table below summarizes drilling activity in 2017. After a decrease in wells drilled between 2015 and 2016, an increase was noted between 2016 and 2017 totals. The number of wells completed was largely unchanged between 2016 and 2017. Increases were noted in the footage drilled and the number of drilling, rework and abandonment notices filed.

| | 2017 | 2016 | 2015 | 2014 | 2013 |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Wells Drilled | 996 | 759 | 1,016 | 3,249 | 2,723 |
| Wells Completed | 1,108 | 1,111 | 1,346 | 3,647 | 3,037 |
| Footage Drilled (ft) | 2,085,937 | 1,587,498 | 2,022,697 | 8,366,634 | 6,920,062 |
| Drilling Notices Filed | 5,208 | 3,917 | 4,976 | 4,456 | 4,536 |
| Rework Notices Filed | 2,547 | 1,715 | 3,082 | 3,481 | 3,158 |
| Abandonment Notices Filed | 2,153 | 1,798 | 2,120 | 2,176 | 2,785 |

Division of Oil, Gas, and Geothermal Resources
OIL AND GAS DISTRICT BOUNDARIES AND OFFICES
2017

DISTRICT OFFICES



- Headquarters 801 K St., 18th Floor, MS 18-05, Sacramento, CA 95814-3530
 Phone: 916-445-9686, TDD 916-324-2555
 Fax: 916-323-0424
- District No. 1 5816 Corporate Ave., Suite 200, Cypress, CA 90630-4731
 Phone: 714-816-6847
 Fax: 714-816-6853
- District No. 2 1000 S. Hill Rd., Suite 116, Ventura, CA 93003-4458
 Phone: 805-654-4761
 Fax: 805-654-4765
- District No. 3 195 S. Broadway, Suite 101, Orcutt, CA 93455
 Phone: 805-937-7246
 Fax: 805-937-0673
- District No. 4 4800 Stockdale Hwy., Suite 100, Bakersfield, CA 93309
 Phone: 661-322-4031
 Fax: 661-861-0279
- District No. 5 4800 Stockdale Hwy., Suite 100, Bakersfield, CA 93309
 Phone: 661-322-4031
 Fax: 661-861-0279
- District No. 6 801 K St., 20th Floor, MS 18-05, Sacramento, CA 95814-3530
 Phone: 916-322-1110
 Fax: 916-445-3319

www.conservation.ca.gov

EXHIBIT 6

**VENTURA COUNTY
AIR POLLUTION CONTROL DISTRICT**

669 County Square Drive
Ventura, CA 93003
805/645-1400

PART 70 PERMIT No. 00012

Permit Term: May 14, 2019 to December 31, 2023

Company Name / Address

California Resources Production Corporation
2575 Vista Del Mar Drive, Suite 101
Ventura, CA 93001

Facility Name / Address

Tenby Production Facility
3450 East Fifth St.
Oxnard, CA 93030

Responsible Officials


Mr. Chad Jones (VP Northern Operations)
Mr. Anibal Araya (Manager Operations)
Mr. James Robinson (VP HSE)
Mr. Raymond Rodriguez (Environmental Director)
661/869-8000

Title V Contact

Mr. Jeff Nobriga
Environmental Advisor
2575 Vista Del Mar Drive, Suite 101
Ventura, CA 93001
805/232-9622

The Part 70 permit consists of this page and the tables, attachments and conditions listed in the attached table of contents. The Part 70 permit application is included for reference only and is not a part of the Part 70 permit.

Pursuant to Rule 33.1, the Part 70 permit shall also serve as a permit to operate issued to fulfill the requirements of Rule 10.B.



Kerby E. Zozula, Manager
Engineering Division

For:

Michael Villegas
Air Pollution Control Officer

May 14, 2019

PART 70 PERMIT NO. 00012
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 - c. Periodic Monitoring Summary
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3. Permitted Throughput and Consumption Limit Table
4. Permitted Emissions Table
5. Oil Well List
6. Exempt Equipment List
7. Specific Applicable Requirements (Attachments)
 - a. Rule 71.1, Crude Oil Production and Separation (71.1N1)
 - b. Rule 71.3, Transfer of Reactive Organic Compound Liquids (71.3N4, 71.3N6)
 - c. Rule 74.9, Stationary Internal Combustion Engines (74.9N7)
 - d. Rule 74.15, Boilers, Steam Generators and Process Heaters (74.15N1)
 - e. Rule 74.15.1, Boilers, Steam Generators and Process Heaters (74.15.1N1, 74.15.1N4)
 - f. California Airborne Toxic Control Measure (ATCM) For Stationary Compression Ignition Engines (ATCM Engine N1)
 - g. 40 CFR Part 63, Subpart ZZZZ, NESHAPS for Stationary Reciprocating Internal Combustion Engines (RICE MACT) (40CFR63ZZZZN3, 40CFR63ZZZZN9)
8. Permit Specific Conditions (Attachments)
 - a. General Recordkeeping Requirements (PO00012PC1)
 - b. Maximum Number of Oil Wells (PO00012PC1)
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 - h. Steam Generator Additional Requirements (PO00012PC5)
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 - j. Crude Oil and Gas Oil Loading Rack Additional Requirements (PO00012PC7)
 - k. Out of Service Emissions Units (PO00012PC8)
 - l. Flare Additional Requirements (PO00012PC9)

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9. General Applicable Requirements (Attachments)

- a. Rule 50, Opacity (50)
- b. Rule 54.B.1, Sulfur Compounds - SO_x at Point of Discharge (54.B.1)
- c. Rule 54.B.2, Sulfur Compounds - SO_x at or Beyond Property Line (54.B.2)
- d. Rule 55, Fugitive Dust (55)
- e. Rule 57.1, Particulate Matter Emissions From Fuel Burning Equipment (57.1)
- f. Rule 64.B.1, Sulfur Content of Fuels - Gaseous Fuels (64.B.1)
- g. Rule 64.B.2, Sulfur Content of Fuels - Solid or Liquid Fuels (64.B.2)
- h. Rule 71.1.C, Crude Oil Production and Separation - Produced Gas (71.1.C)
- i. Rule 71.4.B.1, First Stage Sump Prohibition (71.4.B.1)
- j. Rule 71.4.B.3, Well Cellar Storage Prohibition (71.4.B.3)
- k. Rule 74.6, Surface Cleaning and Degreasing - Wipe Cleaning (74.6)
- l. Rule 74.10, Fugitive Emissions – Oilfields (74.10)
- m. Rule 74.11.1, Large Water Heaters and Small Boilers (74.11.1)
- n. Rule 74.22, Natural Gas-Fired Central Furnaces (74.22)
- o. Title 17, California Code of Regulations, Sections 9566 to 95677, Greenhouse Gas Emissions Standards for Crude Oil and Natural Gas Facilities (CARB GHG OIL GAS)

10. General Requirements for Short-Term Activities (Attachments)

- a. Rule 74.1, Abrasive Blasting (74.1)
- b. Rule 74.2, Architectural Coatings (74.2)
- c. Rule 74.4.D, Cutback Asphalt – Road Oil (74.4.D)
- d. Rule 74.16, Oilfield Drilling Operations (74.16)
- e. Rule 74.26, Crude Oil Storage Tank Degassing Operations (74.26)
- f. Rule 74.29, Soil Decontamination Operations (74.29N3)

11. General Permit Conditions

- a. Part 70 Permit General Conditions (Part 70 General)
- b. Permit to Operate General Conditions (PO General)
- c. Part 70 Permit Shield (PO00012 Shield 1, PO00012 Shield 2)
- d. 40 CFR Part 60, Subpart OOOO, Standards of Performance (NSPS) for Crude Oil and Natural Gas Production, Transmission, and Distribution (40CFR60OOOO)
- e. 40 CFR Part 60, Subpart OOOOa, Standards of Performance (NSPS) for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced After September 18, 2015 (40CFR60OOOOa)

12. Miscellaneous Federal Program Conditions

- a. 40 CFR Part 68 - Accidental Release Prevention and Risk Management Plans (40CFR68)
- b. 40 CFR Part 82 - Protection of Stratospheric Ozone (40CFR82)

13. Part 70 Permit Application Package

Note: The Part 70 permit application is included for reference only and is not a part of the Part 70 permit.

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1.a. PERMIT REVISIONS TABLE

| Application No. | Issue Date | Description / Category | Revised Permit Sections |
|-----------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 00012-151 | 03/09/2000 | Modified Storage Tank Description / Minor Part 70 Permit Modification | <ul style="list-style-type: none"> • Signature Cover Page • Table of Contents • Permit Revisions Table • Table No. 2 • Table No. 3 • Table No. 4 |
| 00012-161 | 01/13/03 | Permit Reissuance for Term: January 1, 2003 to December 31, 2007 | See "Stationary Source Description" |
| 00012-ADM1 | 02/09/04 | Administrative Amendment to revise the permitted emissions to reflect updated EPA-AP42 emissions factors for natural gas external combustion | <ul style="list-style-type: none"> • Signature Cover Page • Permit Revisions Table • Table No. 4 |
| 00012-171 | 08/04/04 | Designate Steam Generator No. 3 as Out of Service / Minor Part 70 Permit Modification | <ul style="list-style-type: none"> • Signature Cover Page • Table of Contents • Permit Revisions Table • Periodic Monitoring Table • Table No. 2 • Table No. 3 • Table No. 4 • Attachment PO00012PC5 • Attachment PO00012PC8 |
| 00012-181 | 05/03/05 | Add Existing Emergency Engines to Permitted Equipment Tables | <ul style="list-style-type: none"> • Signature Cover Page • Table of Contents • Permit Revisions Table • Periodic Monitoring Table • Table No. 2 • Applicable Requirement Code Key • Table No. 3 • Table No. 4 • Insignificant Activities Table • ATCM Engine N1 • ATCM Engine N2 |
| 00012-191 | 01/15/08 | Permit Reissuance for Term January 1, 2008 to December 31, 2012 | See "Permit Summary and Statement of Basis" |
| 00012-201 | 02/01/12 | Transfer of Ownership / Administrative Amendment | <ul style="list-style-type: none"> • Signature Cover Page |

| Application No. | Issue Date | Description / Category | Revised Permit Sections |
|-----------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 00012-211 | 07/18/12 | Designate Various Emissions Units as Out of Service / Minor Part 70 Permit Modification | <ul style="list-style-type: none"> • Signature Cover Page • Permit Revisions Table • Table No. 2 • Table No. 3 • Table No. 4 • Attachment PO00012PC8 |
| 00012-231 | 10/18/12 | Administrative Amendment to change responsible official | <ul style="list-style-type: none"> • Signature Cover Page • Permit Revisions Table |
| 00012-271 | 05/28/13 | Revise Responsible Officials /Administrative Amendment | <ul style="list-style-type: none"> • Signature Cover Page • Permit Revisions Table |
| 00012-221 00012-241 00012-242 00012-243 00012-244 00012-291 00012-301 | 12/03/13 | App -221: Permit Reissuance for Term Ending December 31, 2018 Apps -241,-242,-243,-244: Well Replacements App -291: Administrative Amendment to change Company Name and Responsible Official App -301: Administrative Amendment to change Responsible Official | See "Permit Summary and Statement of Basis" |
| 00012-281 | 07/10/14 | Permit backup flare / Minor Part 70 Permit Modification | <ul style="list-style-type: none"> • Signature Cover Page • Table of Contents • Permit Revisions Table • Permit Summary and Statement of Basis • Periodic Monitoring Summary • Table No. 2 • Table No. 3 • Table No. 4 • Attachment PO00012PC9 (new) • Attachment 54.B.1 • Attachment 54.B.2 |
| 00012-245 00012-331 | 01/21/15 | App -245: Well Replacements App - 331: Company Name Change | <ul style="list-style-type: none"> • Signature Cover Page • Permit Revisions Table • Oil Well List • Attachment PO00012PC1 |

| Application No. | Issue Date | Description / Category | Revised Permit Sections |
|-----------------|------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 00012-351 | 07/07/15 | Remove Emergency Engine From Permit / Revise Engine Description | <ul style="list-style-type: none"> • Signature Cover Page • Table of Contents • Permit Revisions Table • Periodic Monitoring Summary • Table No. 2 • Table No. 3 • Table No. 4 • <i>Remove Attachment ATCM Engine N2</i> |
| 00012-321 | 01/19/16 | Replacement of Steam Generator No. 0 / Minor Part 70 Permit Modification | <ul style="list-style-type: none"> • Signature Cover Page • Table of Contents • Permit Revisions Table • Periodic Monitoring Summary • Table No. 2 • Table No. 3 • Table No. 4 • Attachment PO00012PC5 • Attachment SHIELD-Steam Generator • Attachment 40CFR600000 |
| 00012-361 | 02/17/16 | Revise Responsible Officials and Title V Contact/Administrative Amendment | <ul style="list-style-type: none"> • Signature Cover Page • Permit Revisions Table |
| 00012-371 | 04/04/18 | Administrative Amendment to designate stationary source as non-operational per Rule 42 | <ul style="list-style-type: none"> • Signature Cover Page • Permit Revisions Table |
| 00012-381 | 05/14/19 | Permit Reissuance for Term Ending December 31, 2023 | See "Permit Summary and Statement of Basis" |

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1.b. PERMIT SUMMARY AND STATEMENT OF BASIS

Stationary Source Description

This stationary source is a crude oil production and storage facility. This source has a Standard Industrial Classification (SIC) Code of 1311, Crude Oil Production. The source operates various oil production and processing equipment, including wells, crude oil storage tanks, produced water and slop tanks, gas oil (diluent) storage tanks, nitrite solution vessels, boilers, steam generators, asphalt heaters, asphalt storage tanks, and various loading racks. This stationary source extracts heavy crude oil from tar sands and blends the material into asphalt products. Steam generators are used to inject steam into the tar sand formation to heat the heavy crude and help it flow into the well pump. Diluent is injected into the well casing to enable the well pump to bring the heavy crude to the surface. The diluent is then removed from the crude and recycled for continued heavy crude recovery. This stationary source is subject to the Part 70 permit program based upon the potential to emit nitrogen oxides (NO_x).

As discussed in more detail throughout this Permit Summary and Statement of Basis, this permit applies to emissions units that are required to have a permit to operate pursuant to District Rule 10, "Permits Required", and District Rule 23, "Exemptions from Permit". These emissions units are listed in Table No. 2 in Section No. 2 of this permit. However, as discussed below, some equipment that is exempt from permit pursuant to District Rule 23, "Exemptions from Permit", may be subject to District rules such as District Rule 50, "Opacity". This includes "Insignificant Activities" as listed in Section No. 6 of the permit. In addition, "Short Term Activities" as listed in Section No. 10 of the permit are subject to certain rules and regulations. This permit does not regulate or restrict the use of motor vehicles and mobile equipment such as cars, trucks, bulldozers, and forklifts, however, any smoke or dust emissions generated from the use of such equipment is subject to District Rule 50, "Opacity". This permit does not shield the permittee from complying with any Federal, State, or District rule or regulation that is not specifically addressed in the permit or any rule or regulation that may come into effect during the term of the permit.

Stationary Source Emissions

In Ventura County, the Part 70 permit thresholds are 50 tons per year for ROC and NO_x and 100 tons per year for PM, SO_x, and CO, pursuant to Rule 33.B.2 and Ventura County's "Serious" nonattainment classification with the federal ozone standard. The purpose of Table No. 4 is to document the permitted emissions of the criteria pollutants ROC, NO_x, PM, SO_x, and CO for this stationary source. District Rule 29, "Conditions on Permits", requires permitted emissions to be included on each Permit to Operate. District Rule 29 requires that annual permitted emissions be based on a 12 calendar month rolling period and be expressed in units of tons per year. Hourly permitted emissions are required to be expressed in units of pounds per hour. Permitted emissions for a stationary source are required to be determined by aggregating the permitted emissions for each emissions unit at the stationary source.

Criteria pollutant emissions (ROC, NO_x, PM, SO_x, and CO) result from the combustion of natural gas and diesel fuel in the boilers and steam generators. Reactive Organic Compound

(ROC) emissions result from the storage, handling, and loading of crude oil in the tanks and loading racks.

This stationary source is not a major source of federal Hazardous Air Pollutants (HAPs). The source is well below the HAP major source levels of 10 tons per year of a single HAP or 25 tons per year of combined HAPs. There are no Maximum Achievable Control Technology (MACT) major-source standards that apply to this facility. As described below, there are some applicable area-source MACT standards for this stationary source. The Part 70 Permit re-issuance application includes a summary (in the units of pounds per year and pounds per hour) of pollutants that are subject to the State of California AB2588 Air Toxics “Hot Spot” Program. All HAPS are subject to “Hot Spots” reporting. The goal of the Air Toxics “Hot Spots” Information and Assessment Act of 1987 (California Health and Safety Code Section 44300) is to collect air toxics emission data, to identify facilities having localized adverse health impacts, to ascertain health risks, to notify nearby workers and residents of significant risks, and to reduce significant risks if they exist. Under state law, motor vehicles (on-road and off-road) are not subject to the “Hot Spots” program. This facility has been subject to the “Hot Spots” program since 1989. Based on the quantity of toxic air contaminants released from the facility as determined by source testing, material balance calculations, and other engineering estimates, the potency and toxicity of materials released, and the proximity to sensitive receptors, this facility has been classified as “low level”. As a low level facility, the stationary source is exempt from toxics reporting requirements unless any changes are made; such as facility changes, receptor changes, or toxicity calculation changes, which would put the facility in the “intermediate” category. The most recent data submitted was for the calendar year 1994.

The United States EPA has added greenhouse gases (GHGs) to the list of regulated air pollutants. As of January 2, 2011, EPA has required that GHGs be calculated for each Title V stationary source and included in the Part 70 Permit. However, in a Federal Register notice dated August 19, 2015, EPA ruled that GHG emissions alone cannot be used to determine Title V applicability. This ruling was based on the U.S. Supreme Court decision of June 23, 2015. Greenhouse gases are defined as the aggregate group of six greenhouse gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons (by category), perfluorocarbons (by category), and sulfur hexafluoride. Carbon dioxide equivalent emissions (CO_{2e}) is the amount of greenhouse gases emitted relative to the global warming potential of each pollutant.

The CO_2 potential to emit for this stationary source has been calculated to be 86,239.3 tons per year. The District’s potential to emit is based on the permitted annual combustion and operational (hours per year) limits listed in Table No. 3 of the permit. The District has used emission factors of 10.14 kg CO_2 /gallon diesel (22.33 lb CO_2 /gallon diesel) and 53.02 kg CO_2 /MMBTU natural gas (116.78 lb CO_2 /MMBTU natural gas) from the *Regulation For The Mandatory Reporting of Greenhouse Gas Emissions*, California Code of Regulations, title 17, Subchapter 10, Article 2, sections 95100 to 95133; Appendix A, Table 4. This CO_2 potential to emit does not include insignificant activities or equipment exempt from permit pursuant to Rule 23, “Exemptions From Permit”.

Compliance History

Upon reissuance of this Part 70 permit, the facility was determined to be in compliance with all applicable requirements. For the time period January 1, 1996 to December 31, 2018, the facility received twelve (12) Notices of Violation (NOV) as detailed in the “NOV by Facility” history for Facility No. 00012 located at the end of this section of the Part 70 permit.

Equipment Description and Applicable Requirements - General

Applicable requirements for this stationary source are listed throughout the permit. The Table of Contents in the front of the permit summarizes the applicable requirements including the equipment specific requirements, the general applicable requirements, and the applicable requirements for short-term activities. Table No. 2 in Section No. 2 of this Permit to Operate details the applicable requirements for specific emissions units at the facility. Permit conditions that enforce these requirements are listed in Section No. 7, "Specific Applicable Requirements" and Section No. 8, "Permit Specific Conditions" of this permit.

In addition to the emission unit specific requirements in Section No. 7 and Section No. 8, there are additional general requirements that may apply to the emissions units listed in this table, or to the stationary source as a whole. Furthermore, some general requirements may apply to emissions units or short-term activities not required to be specifically listed on the permit. These general requirements are contained in the following sections of the Permit: Section No. 9, “General Applicable Requirements”; Section No. 10, “General Requirements for Short-Term Activities”; Section No. 11, “General Permit Conditions”; and Section No. 12, “Miscellaneous Federal Program Conditions”. A detailed applicability discussion and additional legal basis for the permit condition(s) is included with each attachment or set of permit conditions.

Equipment Description and Applicable Requirements - Specific

The crude oil, gas oil (diluent), and asphalt storage tanks and processing tanks at this facility are subject to Rule 71.1, “Crude Oil Production and Separation”. The tanks are equipped with vapor recovery for Rule 71.1 compliance. The gas oil and crude oil loading racks are equipped with vapor recovery and primary and secondary overfill protection for Rule 71.3, “Transfer of Reactive Organic Compound Liquids”, compliance. The gas oil and crude oil loading rack vapor recovery systems are also required for Rule 26, “New Source Review”, compliance. The asphalt loading racks are exempt from the requirements of Rule 71.3 since the ROC liquid transferred has a modified Reid vapor pressure of less than 0.5 psia; however, pursuant to Rule 51, “Nuisance”, the units are equipped with a vapor collection system that passes vapors through a water scrubber and filtration system.

The 20.0 MMBTU/Hr Erie City boiler, the six (6) 20.0 MMBTU/Hr steam generators, and the 20.0 MMBTU/Hr Natco Crude oil process heater are equipped with Lo NOx burners for Rule 74.15, “Boilers, Steam Generators and Process Heaters”, compliance. Some of these units are also equipped with flue gas recirculation (FGR) and the capability to burn fuel oil. The 20.0 MMBTU/Hr Erie City boiler, the 20.0 MMBTU/Hr Natco crude oil process heater, and the 20.0

MMBTU/hr PCL Steam Generator (No. 0) have NO_x concentration emission limits that are Rule 26, "New Source Review", limits which are more stringent than the Rule 74.15 requirements.

The facility includes a 5.0 MMBTU/hr flare (PROS Model FLTR-1) which is used for the combustion of gases pursuant to Rules 71.1.B.1.a or 71.1.C.1 by burning excess gas that cannot be combusted in the steam generators or asphalt heaters. The flare is required to be operated properly pursuant to Rules 71.1 and 71.3. The sulfur content of the gas prior to flaring is treated for compliance with Rules 26 and 54.

This stationary source is subject to the fugitive leak and inspection requirements of Rule 74.10, "Components at Crude Oil and Natural Gas Production and Processing Facilities". The stationary source is also subject to the California "Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities. This is a state regulation that is enforced by the District via a Memorandum of Understanding between the District and the California ARB.

A substantial amount of the emissions units listed on this permit are identified as Out of Service (OOS). As stated in Attachment PO00012PC8, the tanks designated as OOS shall not contain any liquids; and the combustion units shall not be connected to a fuel source. Demonstrations of compliance for the Out of Service emissions units are at the discretion of the VCAPCD Compliance Division.

The diesel-fired emergency engines greater than 50 BHP are subject to the requirements of Rule 74.9, "Stationary Internal Combustion Engines"; the California Air Toxic Control Measure (ATCM) For Stationary Compression Ignition Engines; and 40 CFR Part 63, Subpart ZZZZ, NESHAPS for Stationary Reciprocating Internal Combustion Engines (RICE MACT). Since the engines are emergency use only, the requirements of these regulations are limited to fuel use, maintenance, and recordkeeping. There are engines listed in the Insignificant Activities Table that are subject to applicable rules. The fire water pump engine that is exempt because it is rated less than 50 HP is subject to the RICE MACT; the fire water pump engine that is exempt because it is a spark ignited emergency use engine is subject the RICE MACT and to Rule 74.9.

This stationary source has stated that 40 CFR Part 68, "Chemical Accident Prevention Provisions", is not an applicable requirement. The facility does not store any specified materials in sufficient quantities to make them subject to 40 CFR Part 68. Therefore, a federal Risk Management Plan, pursuant to section 112(r) of the federal Clean Air Act as amended, is not required.

This stationary source does not have any emission units subject to 40 CFR Part 64, "Compliance Assurance Monitoring" (CAM). There are no "control devices" on emissions units, as defined in the CAM regulation.

This Part 70 Permit contains a permit shield from 40 CFR Part 60, Subpart Dc, "Standards of Performance for Small Industrial – Commercial – Institutional Steam Generating Units". The shield applies to the six (6) 20.0 MMBTU/Hr steam generators (Units Nos. 0, 1, 2, 3, 4, 5), the one (1) 20.0 MMBTU/Hr Erie City boiler, and the one (1) 20.0 MMBTU/Hr Natco crude oil heater. Except for Unit No. 0, all of these units were constructed prior to the applicability date of

June 9, 1989. Unit No. 0 is subject to Subpart Dc; but since it combusts natural gas only, it is only subject to recordkeeping requirements.

This Part 70 Permit also contains permit shields from 40 CFR Part 60, Subpart J, "Standards of Performance for Petroleum Refineries"; 40 CFR Part 60, Subpart UU, "Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture"; 40 CFR Part 60, Subpart GGG, "Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries"; and 40 CFR Part 60, Subpart QQQ, "Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems". These New Source Performance Standards do not apply to this stationary source because the source does not meet the applicable definitions of a petroleum refinery, asphalt roofing plant, or asphalt processing plant.

Permit Revisions Summary

The Permit Revisions Table (located in Section No. 1 of the permit) is a list of all permit revisions since Part 70 Permit No. 00012 was initially issued on January 1, 1998. A detailed list of a portion of the permit revisions is described below. The District's Engineering Analysis for each application can also be consulted for further details.

Application No. 00012-161: Application No. 00012-161 is for the reissuance of Part 70 Permit No. 00012 for the period January 1, 2003 to December 31, 2007. The following items summarize the changes from the initial Part 70 Permit No. 00012 (January 1, 1998 to December 31, 2002):

- This "Stationary Source Description" has been added to the permit. It was not included in the initial Part 70 Permit No. 00012.
- The number of oil wells on the permit has been reduced from 86 to 70 wells; thereby reducing the permitted emissions by 5.84 tons per year ROC and 1.33 pounds per hour ROC.
- An attachment detailing the requirements of Rule 74.9, "Stationary Internal Combustion Engines", that apply to emergency standby stationary internal combustion engines rated at 50 or more horsepower and operated during an emergency or maintenance operation has been added to the permit. These exempt units have been specifically listed in the Insignificant Activities Table and now are also generally listed in Tables 2, 3, and 4 of the permit.
- Attachments detailing the applicable requirements for Rule 74.11.1, "Large Water Heaters and Small Boilers", and Rule 74.22, "Natural Gas-Fired Central Furnaces", have been added to the permit.
- The following District rules have been revised and/or revisions of the rule have been adopted into the State Implementation Plan (SIP) since the initial issuance of Part 70 Permit No. 00012:
 - a) Rule 54, "Sulfur Compounds"
 - b) Rule 57, "Combustion Contaminants – Specific"

- c) Rule 64, "Sulfur Content of Fuels"
- d) Rule 68, "Carbon Monoxide"
- e) Rule 74.2, "Architectural Coatings"
- f) Rule 74.6, "Surface Cleaning and Degreasing"
- g) Rule 74.10, "Components at Crude Oil and Natural Gas Production and Processing Facilities"
- h) Rule 74.15.1, "Boilers, Steam Generators, and Process Heaters (1 to 5 MMBTUs)"
- i) Rule 74.16, "Oilfield Drilling Operations"
- j) Rule 74.29, "Soil Decontamination Operations"

Application No. 00012-191: Application No. 00012-191 is for the reissuance of Part 70 Permit No. 00012 for the period January 1, 2008 to December 31, 2012. The following items summarize the revisions to the permit since the January 1, 2003 to December 31, 2007 reissuance:

- The Permit Summary and Statement of Basis for the permit has been expanded.
- Attachment PO0012PC1, Condition No. 3 has been revised to reflect the November 11, 2003 changes to Rule 23, "Exemptions From Permit", Section F.10, regarding solvent cleaning operations.
- Attachment PO0012PC2 was revised pursuant to revisions to Rule 64, "Sulfur Content of Fuels".
- The following District rules have been revised and/or revisions of the rule have been adopted into the State Implementation Plan (SIP) since the last reissuance of Part 70 Permit No. 00012:
 - a) Rule 51, "Nuisance"
 - b) Rule 52, "Particulate Matter – Concentration (Grain Loading)" – The rule was revised such that it no longer is applicable to the emissions units at this stationary source.
 - c) Rule 57, "Combustion Contaminants – Specific" – The rule has been replaced by Rule 57.1, "Particulate Matter Emissions From Fuel Burning Equipment"
 - d) Rule 68, "Carbon Monoxide" – The rule was revised such that it no longer is applicable to the emissions units at this stationary source.
 - e) Rule 74.6, "Surface Cleaning and Degreasing"
 - f) Rule 74.9, "Stationary Internal Combustion Engines"

Application No. 00012-221: Application No. 00012-221 is for the reissuance of Part 70 Permit No. 00012 for the five-year period ending December 31, 2018. This permit revision also includes Application No. 00012-241, -242, -243, and -244 which are for well replacements. Application No. 00012-291 is also included; and is an Administrative Amendment to change the company name, Responsible Official, and Title V Contact. Application No. 00012-301 is also included; and is an Administrative Amendment to replace a Responsible Official. The following items summarize the revisions to the permit since the January 1, 2008 to December 31, 2012 reissuance:

- A discussion of Greenhouse Gases has been included.
- Attachment PO0012PC1 has been revised to name the wells which are required to operate as BACT wells, pursuant to Application Nos. 00012-241, -242, -243, and -244.
- A permit condition attachment has been added for 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT).
- A permit condition attachment for Rule 55, “Fugitive Dust”, has been added to the permit.
- The following District rules have been revised and/or revisions of the rule have been adopted into the State Implementation Plan (SIP) since the last reissuance of Part 70 Permit No. 00012:
 - a) California Air Toxic Control Measure (ATCM) For Stationary Compression Ignition Engines
 - b) Rule 74.2, “Architectural Coatings”
 - c) Rule 74.15.1, “Boilers, Steam Generators, and Process Heaters”
 - d) Rule 74.11.1, “Large Water Heaters and Small Boilers”
 - e) Rule 74.29, “Soil Decontamination Operations”

Application No. 00012-381 Application No. 00012-381 is for the reissuance of Part 70 Permit No. 00012 for the five-year period ending December 31, 2023. The following items summarize the revisions to the permit since the January 1, 2014 to December 31, 2018 reissuance:

- A condition attachment for the California ARB Greenhouse Gas Emissions Standards for Crude Oil and Natural Gas Facilities has been added to the permit.
- A condition attachment for 40 CFR Part 60, Subpart OOOOa, Standards of Performance (NSPS) for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Re-Construction Commenced After September 18, 2015 has been added to the permit.
- The District has revised some monitoring requirements to exclude the phrase “routine surveillance” from the permit. The following attachments have been revised to reflect this change:
 - a) Attachment 50
 - b) Attachment 71.3N4
 - c) Attachment 71.3N6
 - d) Attachment 74.1
 - e) Attachment 74.2
 - f) Attachment 74.6
 - g) Attachment 74.15.1N1
 - h) Attachment 74.15.1N4
 - i) Attachment 74.26
 - j) Attachment 74.29N3
 - k) Attachment PO00012PC6

- The following District and EPA rules have been revised and/or revisions of the District rule have been adopted into the State Implementation Plan (SIP):
 - a) Rule 54, “Sulfur Compounds”
 - b) Rule 74.11.1, “Large Water Heaters and Small Boilers”
 - c) Rule 74.15.1, “Boilers, Steam Generators, and Process Heaters”
 - d) 40 CFR Part 63, Subpart ZZZZ, “NESHAPS for Stationary Reciprocating Internal Combustion Engines (RICE MACT)”

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NOV by Facility

Since January 1, 1996

Facility selected

00012

| Facility No | 00012 | Tenby Production Facility | | | | |
|-------------|--------|---------------------------|-------------------------------------------------------------------------------|------------|-------------|--|
| NOV Date | NOV No | Rule Number | Comment | Settlement | Date Closed | |
| 10/01/1996 | 018259 | 74.15 | Failure To Meet Emissions - Steam Generator Viol. 74.15.B.1. Paid \$500.00 | \$500.00 | 11/11/1996 | |
| 10/01/1996 | 018260 | 29.C | Permit Condition Not Met - Boiler Emissions Viol. 29.C. Paid \$0.00 | \$0.00 | 11/11/1996 | |
| 09/25/1997 | 018287 | 29.C | Permit Condition Not Met - Boiler Viol. 29.C. Paid \$750.00 | \$750.00 | 11/10/1997 | |
| 03/24/1999 | 019059 | 74.10.C.2 | Exceeding Leak Rate Threshold - Two Open Ended Lines | \$2,000.00 | 05/04/1999 | |
| 09/20/1999 | 019080 | 29.C | Permit Condition Not Met - Exceeded Gas Oil Tanks Throughput | \$0.00 | 10/04/1999 | |
| 05/02/2001 | 019522 | 74.15.B.1 | Failure To Meet Boiler Emissions - CO Emissions | \$0.00 | 05/30/2001 | |
| 04/07/2004 | 020259 | 71.1.B.1 | Improper Vapor Recovery System - Vapor Recovery | \$1,000.00 | 05/18/2004 | |
| 04/20/2005 | 021063 | 71.1.B.1 | Improper Vapor Recovery System - Vapor Recovery System | \$3,500.00 | 06/01/2005 | |
| 07/06/2011 | 022626 | 74.15.B.1 | Failure To Meet Boiler Emissions - Heater | \$500.00 | 09/08/2011 | |
| 03/22/2012 | 022852 | 74.10 | Exceeding Leak Rate Threshold - Oilfield | \$3,500.00 | 04/27/2012 | |
| 04/04/2013 | 022873 | 29.C | Permit Condition Not Met - Failure To Conduct VEE Survey | \$5,000.00 | 05/23/2013 | |
| 02/23/2016 | 023307 | 71.1.B.1.a | Improper Vapor Recovery System - Vapor Recovery System | \$1,000.00 | 03/16/2016 | |

Total for 12 NOVs

\$17,750.00

1.c. PERIODIC MONITORING SUMMARY

This periodic monitoring summary is intended to aid the permittee in quickly identifying key monitoring, recordkeeping, and reporting requirements. It is not intended to be used as a “stand alone” monitoring guidance document that completely satisfies the requirements specifically applicable to this facility. The following tables are included in the periodic monitoring summary:

- Table 1.c.1. - Specific Applicable Requirements
- Table 1.c.2. - Permit-Specific Conditions
- Table 1.c.3. - General Applicable Requirements
- Table 1.c.4. - General Requirements for Short-Term Activities

1.c.1. Specific Applicable Requirements

The Specific Applicable Requirements Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 7 of this permit.

| Attachment No./ Condition No. | Applicable Rule or Requirement | Monitoring | Recordkeeping | Semi-annual Reports | Test Methods | Comments |
|-------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 71.1N1 | Rules 71.1.B.1.a, 74.10 | <ul style="list-style-type: none"> •Quarterly inspection of the following components for proper operation: gas compressor, hatches, relief valves, pressure regulators, flare, as applicable •Verbal notice of maintenance activities •Rule 74.10 inspections •Annual compliance certification including verification that tanks are equipped with a vapor recovery system | <ul style="list-style-type: none"> •Records of quarterly inspections and tank maintenance activities •Rule 74.10 records | None | None | |
| 71.3N4 | Rules 71, 71.3.B.2.a.1, 71.3.B.2.b.2 | <ul style="list-style-type: none"> •Annual compliance certification •Annually monitor one complete loading operation for leaks and for proper operation of the loading equipment and delivery vessel vapor recovery and overfill protection systems •Visual inspection of truck tank level after each liquid loading | <ul style="list-style-type: none"> •Records of annual inspections of the loading operations | None | <ul style="list-style-type: none"> •Leak Detection - Appropriate analyzer calibrated with methane or alternative screening procedure in EPA Reference 21 | |

1.c.1. Specific Applicable Requirements (Continued)

| Attachment No./ Condition No. | Applicable Rule or Requirement | Monitoring | Recordkeeping | Semi-annual Reports | Test Methods | Comments |
|-------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 71.3N6 | Rule 71.3.E.1 | <ul style="list-style-type: none"> Annual compliance certification with records of data to ensure modified Reid vapor pressure of liquid is < 0.5 psia | <ul style="list-style-type: none"> Records of vapor pressure determinations | None | <ul style="list-style-type: none"> VP of petroleum products - ASTM Method D-323-82 Volume 5.01, Section 5 | Organic liquids listed in Attachment 1 of Rule 71.2 w/ a transfer temp not exceeding the max. temp listed corresponding w/ 0.5 psia are exempt from Rule 71.3. |
| 74.9N7 | Rule 74.9.D.3 | <ul style="list-style-type: none"> Annual compliance certification Hours of operation | <ul style="list-style-type: none"> Records of operating hours Date, time, duration, and reason for emergency operation Records of engine data | None | None | |
| 74.15N1 | Rule 74.15.B.1 | <ul style="list-style-type: none"> Annual compliance certification Biennial Source Test (NO_x, CO) | <ul style="list-style-type: none"> Records of source tests Daily records of alternate fuel consumption | None | <ul style="list-style-type: none"> NO_x-ARB Method 100 CO-ARB Method 100 | |
| 74.15.1N1 | Rule 74.15.I.B.1 | <ul style="list-style-type: none"> Annual compliance certification Source test every 24 or 48 months (NO_x, CO) Annual screening analysis (NO_x, CO) with a portable analyzer Annual compliance certification Notice to the District and fuel records if operating | <ul style="list-style-type: none"> Records of source tests Daily records of alternate fuel consumption | <ul style="list-style-type: none"> Submit report of annual screening analysis within 45 days | <ul style="list-style-type: none"> NO_x-ARB Method 100 CO-ARB Method 100 | |
| 74.15.1N4 | Rules 74.15.I.D.1 and 74.15.B.1 or2 | <ul style="list-style-type: none"> Annual compliance certification Notice to the District and fuel records if operating | <ul style="list-style-type: none"> Notice to the District and fuel records if operating | None | None | |
| ATCM Engine N1 | California ATCM for Stationary Compression Engines - fuel requirements | <ul style="list-style-type: none"> Maintain records of fuel type Maintain records of hours of operation Maintain records of fuel used | <ul style="list-style-type: none"> Maintain records of fuel type Maintain records of hours of operation Maintain records of fuel used | None | None | |
| 40CFR63ZZZN3 | RICE MACT for emergency diesel engines - oil change and inspections | <ul style="list-style-type: none"> Maintenance records Annual compliance certification | <ul style="list-style-type: none"> Maintenance records Hours of operation records | None | None | |
| 40CFR63ZZZN9 | RICE MACT for emergency spark ignited engines - oil change and inspections | <ul style="list-style-type: none"> Maintenance records Annual compliance certification | <ul style="list-style-type: none"> Maintenance records Hours of operation records | None | None | |

1.c.2. Permit-Specific Conditions

The Permit-Specific Conditions Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 8 of this permit.

| Attachment No./Condition No. | Applicable Rule or Requirement | Monitoring | Recordkeeping | Semi-annual Reports | Test Methods | Comments |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------|
| PO00012PC1 - Condition No. 1 | Rules 26 and 29 General Recordkeeping | <ul style="list-style-type: none"> Annual compliance certification Monthly records of throughput and consumption | <ul style="list-style-type: none"> Monthly records | None | None | |
| PO00012PC1 - Condition No. 2 | Rule 29 Maximum Number of Oil Wells | <ul style="list-style-type: none"> Annual compliance certification | None | None | None | |
| PO00012PC1 - Condition No. 3 | Rule 26 - BACT wells | <ul style="list-style-type: none"> Annual compliance certification | None | None | None | |
| PO00012PC1 - Condition No.4 | Rule 29 Solvent Recordkeeping | <ul style="list-style-type: none"> Monthly records of solvent purchase and usage Annual compliance certification | <ul style="list-style-type: none"> Records of solvent purchase and usage | None | None | |
| PO00012PC2 | Rule 64 Nitrite Solution Vessel Operation | <ul style="list-style-type: none"> Weekly tests of H₂S content in gases Annual analysis of sulfur content in fuel gas Annual compliance certification | <ul style="list-style-type: none"> Records of H₂S test information Records of fuel gas sulfur analysis tests | None | <ul style="list-style-type: none"> H₂S content - detector tubes Sulfur content - SCAQMD Method 307-94 | |
| PO00012PC3 | Rules 26 and 74.15 Boiler Emission Limits and FGR Settings | <ul style="list-style-type: none"> Monthly records of FGR valve opening setting Biennial Source Test (NO_x) Annual compliance certification | <ul style="list-style-type: none"> Records of FGR valve settings Records of emissions source test | None | <ul style="list-style-type: none"> NO_x-ARB Method 100 | |
| PO00012PC4 | Rules 26 and 74.15 Process Heater Emission Limits and FGR Settings | <ul style="list-style-type: none"> Monthly records of FGR valve opening setting Biennial Source Test (NO_x) Annual compliance certification | <ul style="list-style-type: none"> Records of FGR valve settings Records of emissions source test | None | <ul style="list-style-type: none"> NO_x-ARB Method 100 | |
| PO00012PC5 - Condition Nos. 1, 5, 6, 7, and 8 | Rules 26, 29, and 74.15 Steam Generator Nos. 4 and 5 Max. Fuel Oil Rate, Sulfur and Nitrogen Concentration Limits, Emission Limits, and FGR Settings | <ul style="list-style-type: none"> Monthly records of FGR valve opening setting Monthly records of oxygen trim controller settings Source Test (NO_x) while burning fuel oil during curtailment when > 118.2 gal/hr Source Test (NO_x, CO) while burning fuel oil during periods of other than curtailment Biennial Source Test (NO_x, CO) while burning natural gas Fuel supplier's certification, or fuel test per each delivery documenting nitrogen and sulfur content of fuel Amount of fuel consumed Annual compliance certification | <ul style="list-style-type: none"> Records of FGR valve settings Records of oxygen trim controller settings Records of emissions source tests Records of fuel tests Fuel consumption records | None | <ul style="list-style-type: none"> NO_x-ARB Method 100 CO - ARB Method 100 | |

1.c.2. Permit-Specific Conditions (Continued)

| | | | | | |
|---------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PO00012PC5 - Condition Nos. 2, 3, and 8 | Rules 26, 29, 54, 64, and 74.15 Steam Generator No. 0 Emission Limits and fuel limits | <ul style="list-style-type: none"> Source Test (NO_x and CO) every 24 months Annual monitoring of fuel sulfur content Annual compliance certification | <ul style="list-style-type: none"> Records of emissions source test Fuel sulfur content measurements | None | <ul style="list-style-type: none"> NO_x-ARB Method 100 CO - ARB Method 100 SCAQMD Method 307-91 |
| PO00012PC5 - Condition Nos. 4, 6, 7, and 8 | Rules 26, 29, and 74.15 Steam Generator Nos. 1 and 2 Emission Limits and FGR Settings | <ul style="list-style-type: none"> Monthly records of FGR valve opening setting Monthly records of oxygen trim controller settings Source Test (NO_x) prior to burning fuel oil during curtailment Source Test (NO_x, CO) while burning fuel oil during periods of other than curtailment Biennial Source Test (NO_x, CO) while burning natural gas Amount of fuel consumed Monthly records of oxygen trim controller settings Annual compliance certification | <ul style="list-style-type: none"> Records of FGR valve settings Records of oxygen trim controller settings Records of emissions source tests Fuel consumption records | None | <ul style="list-style-type: none"> NO_x-ARB Method 100 CO - ARB Method 100 |
| PO00012PC6 | Rule 51 Asphalt Loading Rack Odor Control | <ul style="list-style-type: none"> Annual certification that the vapor collection and scrubbing system is operating properly | None | None | None |
| PO00012PC7 | Rules 26 and 71.3 Crude Oil and Gas Oil Loading Rack Vapor Control | <ul style="list-style-type: none"> Annual compliance certification including monitoring one complete loading operation for leaks and for proper operation of the loading equipment and delivery vessel vapor recovery and overfill protection systems | <ul style="list-style-type: none"> Records of annual inspections of the loading operations | None | <ul style="list-style-type: none"> Leak Detection - Appropriate analyzer calibrated with methane or alternative screening procedure in EPA Reference 21 |
| PO00012PC8 | Rule 29 Out of Service Emissions Units | <ul style="list-style-type: none"> Annual compliance certification to ensure that emissions unit is shut down and not being operated | None | None | None |
| PO00012PC9 Condition Nos. 1, 2, 3, and 4 | Rules 26, 71.1, 71.3 Flare ignition system operation, Smokeless | <ul style="list-style-type: none"> Annual compliance certification Monthly test of flare's ignition system | <ul style="list-style-type: none"> Records of monthly tests and maintenance activities | None | None |
| PO00012PC9 Condition No. 5 | Rules 26 and 54 20 ppm sulfur content | <ul style="list-style-type: none"> Annual testing of sulfur content of gas | <ul style="list-style-type: none"> Records of annual testing | None | <ul style="list-style-type: none"> Detector tubes, SCAQMD Method 307-91, or EPA Method 16 |

1.c.3. General Applicable Requirements

The General Applicable Requirements Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 9 of this permit.

| Attachment No./Condition No. | Applicable Rule or Requirement | Monitoring | Recordkeeping | Semi-annual Reports | Test Methods | Comments |
|------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 50 | Rule 50 | <ul style="list-style-type: none"> Periodic visual inspections Annual compliance certification, including a formal survey Opacity readings upon request Notification required for uncorrectable visible emissions | <ul style="list-style-type: none"> All occurrences of visible emissions for periods > 3min in any one hour Annual formal survey of all emissions units | None | <ul style="list-style-type: none"> Opacity - EPA Method 9 | |
| 54.B.1 | Rule 54.B.1 | <ul style="list-style-type: none"> Annual compliance certification Follow monitoring requirements under Rule 64 Upon request, source test for sulfur compounds at point of discharge | None | None | <ul style="list-style-type: none"> Sulfur Compounds - EPA Test Method 6, 6A, 6C, 8, 15, 16A, 16B, or SCAQMD Method 307-94, as appropriate | <ul style="list-style-type: none"> Compliance with Rule 64 ensures compliance with this rule based on District analysis |
| 54.B.2 | Rule 54.B.2 | <ul style="list-style-type: none"> Annual compliance certification Determine ground or sea level concentrations of SO₂, upon request | <ul style="list-style-type: none"> Representative fuel analysis or exhaust analysis and compliance demonstration | None | <ul style="list-style-type: none"> SO₂ - BAAQMD Manual of Procedures, Vol. VI, Section 1, Ground Level Monitoring for H₂S and SO₂ | |
| 55 | Rule 55 | <ul style="list-style-type: none"> Annual compliance certification | <ul style="list-style-type: none"> Specific activity records as applicable | None | <ul style="list-style-type: none"> EPA Method 9 with modifications | |
| 57.1 | Rule 57.1 | <ul style="list-style-type: none"> Annual compliance certification | None | None | None | <ul style="list-style-type: none"> Not required based on District analysis |
| 64.B.1 | Rule 64.B.1 | <ul style="list-style-type: none"> Annual compliance certification None for PUC-quality gas Annual test for non PUC-quality gas (submit with annual compliance certification) | <ul style="list-style-type: none"> Annual fuel gas analysis for non PUC-quality gas | None | <ul style="list-style-type: none"> SCAQMD Method 307-94 | |
| 64.B.2 | Rule 64.B.2 | <ul style="list-style-type: none"> Annual compliance certification Fuel supplier's certification, or fuel test per each delivery (submit with annual compliance certification) | <ul style="list-style-type: none"> Fuel supplier's certification, or fuel test per each delivery | None | <ul style="list-style-type: none"> ASTM Method D4294-83 or D2622-87 | |
| 71.1.C | Rules 71.1.C and 74.10 | <ul style="list-style-type: none"> Annual compliance certification Rule 74.10 inspections Visual inspection to ensure collection system is closed Quarterly inspection of flare to ensure proper operation | <ul style="list-style-type: none"> Records of flare inspections of flare Rule 74.10 records | None | None | <ul style="list-style-type: none"> Compliance with Rule 74.10 ensures compliance with the gas collection system's maintenance requirements |

1.c.3. General Applicable Requirements (Continued)

| Attachment No./ Condition No. | Applicable Rule or Requirement | Monitoring | Recordkeeping | Semi-annual Reports | Test Methods | Comments |
|-------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 71.4.B.1 | Rule 71.4.B.1 | <ul style="list-style-type: none"> Annual compliance certification to ensure there are no first stage sumps Annual compliance certification | None | None | None | |
| 71.4.B.3 | Rule 71.4.B.3 | <ul style="list-style-type: none"> Conduct periodic facility inspections Annual compliance certification Maintain current solvent information Upon request, solvent testing | <ul style="list-style-type: none"> Records of maintenance or well workover activity during periods of crude oil storage Records of current solvent information | None | <ul style="list-style-type: none"> ROC content-EPA Test Method 24 or 24A Identity of solvent components-ASTM E168-67, ASTM E169-87, or ASTM E260-85 True vapor pressure or composite partial pressure -ASTM D2879-86 Initial boiling point-ASTM 1078-78 or published source Spray gun active/passive solvent losses-SCAQMD Method (10-3-89) | |
| 74.10 | Rule 74.10 | <ul style="list-style-type: none"> Annual compliance certification Identify leaking components Inspections every shift or 8 hours at natural gas processing plants Daily and/or weekly inspections for specified equipment Quarterly inspections for specified components Pressure relief valve inspections Annual update to Operator Management Plan Notification of major leaks in critical components Notification of repeat leaks | <ul style="list-style-type: none"> Records of leak inspections in inspection log | None | <ul style="list-style-type: none"> Gas Leaks - EPA Method 21 ROC Concentration of Gas Streams - ASTM E168-88, ASTM E169-87, or ASTM E260-85 Weight percentage of evaporated compounds of liquids - ASTM Method D 86-82 API Gravity - ASTM Method D287 | |
| 74.11.1 | Rule 74.11.1 | <ul style="list-style-type: none"> Annual compliance certification Maintain identification records of large water heaters and small boilers | <ul style="list-style-type: none"> Records of current information of large water heaters and small boilers | None | None | <ul style="list-style-type: none"> Rule only applies to future installation of large water heaters and small boilers |
| 74.22 | Rule 74.22 | <ul style="list-style-type: none"> Annual compliance certification Maintain furnace identification records | <ul style="list-style-type: none"> Records of current furnace information | None | None | <ul style="list-style-type: none"> Rule only applies to future installation of natural gas-fired, fan-type furnaces |

1.c.4. General Requirements for Short-Term Activities

The General Requirements for Short-Term Activities Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 10 of this permit.

| Attachment No./ Condition No. | Applicable Rule or Requirement | Monitoring | Recordkeeping | Semi-annual Reports | Test Methods | Comments |
|-------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 74.1 | Rule 74.1 | <ul style="list-style-type: none"> Monitor each abrasive blasting operation Annual compliance certification Abrasive blasting records | <ul style="list-style-type: none"> Abrasive blasting records | None | <ul style="list-style-type: none"> Visible emission evaluation-Section 92400 of CCR | |
| 74.2 | Rule 74.2 | <ul style="list-style-type: none"> Conduct periodic inspections Annual compliance certification Maintain VOC records of coatings used | <ul style="list-style-type: none"> Maintain VOC records of coatings used | None | <ul style="list-style-type: none"> Pursuant to Rule 74.2.G | |
| 74.4.D | Rule 74.4.D | <ul style="list-style-type: none"> Annual compliance certification Test ROC content of oil sample being proposed for usage | <ul style="list-style-type: none"> Records of oil analyses | None | <ul style="list-style-type: none"> ASTM D402 | |
| 74.16 | Rule 74.16 | <ul style="list-style-type: none"> Annual compliance certification to ensure grid power being used, and/or Annual compliance certification to ensure drilling engine has a valid APCD Permit to Operate, and meets NO_x limit, or Maintain cost analysis documentation as verification to grid power exemption, if applicable Annual source tests (NO_x) or engine manufacturer certification | <ul style="list-style-type: none"> Records of source tests or engine manufacturer certification Records of cost analysis documentation | None | <ul style="list-style-type: none"> NO_x-ARB Method 100 | |
| 74.26 | Rule 74.26 | <ul style="list-style-type: none"> Annual compliance certification Record vapor concentration and gas flow rate of control device Record vapor concentration of tank Vapor destruction or removal efficiency upon request Insure subcontractor has valid permit for portable equipment, if applicable Notification required for degassing | <ul style="list-style-type: none"> Vapor concentration and gas flow rate of control device Vapor concentration of tank being degassed | None | <ul style="list-style-type: none"> Liquid mRV-ASTM Method D 323-82 Vapor concentration-EPA Method 21 Vapor flow-EPA Method 2A Vapor destruction or removal efficiency-EPA Method 25A | |

1.c.4. General Requirements for Short-Term Activities (Continued)

| | | | | | | |
|---------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 74.29N3 | Rule 74.29 | <ul style="list-style-type: none"> • Annual compliance certification • Weekly measurements of in-situ soil bioventing or bioremediation • Weekly measurements of soil aeration • Date and quantity of soil aerated • Notification req'd for excavation | <ul style="list-style-type: none"> • Weekly measurements of soil decontamination operation vapor concentration • Date and quantity of soil aerated | None | <ul style="list-style-type: none"> • Vapor concentration- EPA Method 21 • Wt. % of contaminant in soil-EPA Method 8015B | |
|---------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------|--|

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2. PERMITTED EQUIPMENT AND APPLICABLE REQUIREMENTS TABLE

Purpose

The purpose of this table is to list the emissions units at this stationary source that are permitted to operate pursuant to Rule 10, "Permits Required" and Rule 23, "Exemptions From Permit". The table also provides a list of requirements that are specifically applicable to these emissions units. Permit conditions that enforce these requirements are listed in Section No. 7, "Specific Applicable Requirements" and Section No. 8, "Permit Specific Conditions" of this permit.

In addition to the emission unit specific requirements in Section No. 7 and Section No. 8, there are additional general requirements that may apply to the emissions units listed in this table, or to the stationary source as a whole. Furthermore, some general requirements may apply to emissions units or short-term activities not required to be specifically listed on the permit. These general requirements are contained in the following sections of the Permit: Section No. 9, "General Applicable Requirements"; Section No. 10, "General Requirements for Short-Term Activities"; Section No. 11, "General Permit Conditions"; and Section No. 12, "Miscellaneous Federal Program Conditions".

Equipment Description

This portion of the table provides a brief description of the permitted equipment at this stationary source. Attached to the table is a "Title V Equipment List Description Key" that contains definitions and explanations for some of the standard terminology used in the equipment description.

Applicable Requirements

The applicable requirements portion of the table is a matrix of applicability for the specific requirements that apply to the listed emissions units. The columns are labeled with APCD rule numbers or references to federal requirements. An "X" in the row corresponding to the emissions unit indicates the requirement is specifically applicable to that unit. For cases where a rule has multiple compliance options, a number appears instead of an "X". The number is a code key that corresponds to the "Title V Applicable Requirement Code Key" attached to the table. The code key table contains specific citations for the portions of the rule that are applicable. The code key is also used to identify the permit attachment in Section No. 7, "Specific Applicable Requirements", that contains the associated permit conditions. For example, code key "1" under Rule 71.1 is associated with Attachment 71.1N1 in Section No. 7.

Permit specific conditions are identified with a "PC" followed by a number in the column labeled "ADD REQ" (additional requirements). A "PC#" in the row corresponding to the emissions unit indicates that the permit specific condition is specifically applicable to that unit. The "PC#" also

corresponds to the permit attachment in Section No. 8, "Permit Specific Conditions", that contains the permit specific requirements.

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TABLE NO. 2

| VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|-------|---------|-------------|-----------|-------------------------|--|
| Permit to Operate No. 00012 | | | | | | | | | |
| Permitted Equipment and Applicable Requirements | | | | | | | | | |
| Equipment | 71.1 | 71.3 | 74.9 | 74.15 | 74.15.1 | ATCM Engine | RICE MACT | Additional Requirements | |
| Indirect Process Heat | | | | | | | | | |
| 1 - 20.0 MMBTU/Hr NG/FO Erie City Boiler (7) Lo Nox (36 PPM) | OOS | | | 1 | | | | PC1, PC3, PC8 | |
| 1 - 4.0 MMBTU/Hr NG/FO Boiler (5) Standby UNC | OOS | | | | 4 | | | PC1, PC8 | |
| 1 - 4.5 MMBTU/Hr NG/FO Boiler (6) Standby UNC | OOS | | | | 4 | | | PC1, PC8 | |
| 1 - 3.0 MMBTU/Hr NG/FO Boiler (1) Standby UNC | OOS | | | | 4 | | | PC1, PC8 | |
| 1 - 3.0 MMBTU/Hr NG/FO Boiler (4) Standby UNC | OOS | | | | 4 | | | PC1, PC8 | |
| 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC (3500 Tank Farm) | OOS | | | | 4 | | | PC1, PC8 | |
| 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC (3500 Tank Farm) | OOS | | | | 4 | | | PC1, PC8 | |
| 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC (3500 Tank Farm) | OOS | | | | 4 | | | PC1, PC8 | |
| 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC (3500 Tank Farm) | OOS | | | | 4 | | | PC1, PC8 | |
| Solids Recycling and Disposal System | | | | | | | | | |
| 1 - 150 BBL Slop Tank (TC-14) VR | OOS | 1 | | | | | | PC1, PC8 | |
| 1 - 500 BBL PWT (501) VR | OOS | 1 | | | | | | PC8 | |
| 1 - 500 BBL PWT (502) VR | OOS | 1 | | | | | | PC8 | |
| Produced Gas Sweetening System | | | | | | | | | |
| 1 (or More) - Nitrite Solution Vessels | | | | | | | | PC2 | |
| Flare | | | | | | | | | |
| 1 - 5.0 MMBTU/Hr Flare, PROS, Inc., Model FLTR-1, 45 scf/hr pilot, 26' high, electronic auto ignition pilot, sulfur pre-treatment system, used as backup VR system | | | | | | | | PC9 | |
| Portable Steam Generators for Thermally EOR | | | | | | | | | |
| 1 - 20.0 MMBTU/Hr NG PCL Industrial Services, Inc. Steam Generator (0), equipped with Coen QLN-II Low NOx burner, automatic FGR, fired on PUC Natural gas, with PUC natural gas mixed with produced gas as secondary fuel | | | | 1 | | | | PC1,PC5 | |
| 1 - 20.0 MMBTU/Hr NG Steam Generator (1) Lo NOx | | | | 1 | | | | PC1,PC5 | |
| 1 - 20.0 MMBTU/Hr NG Steam Generator (2) Lo NOx | OOS | | | 1 | | | | PC1,PC5,PC8 | |
| 1 - 20.0 MMBTU/Hr NG/FO Steam Gen. (3) Lo NOx | OOS | | | | | | | PC1, PC8 | |
| 1 - 20.0 MMBTU/Hr NG/FO Steam Gen. (4) Lo NOx | | | | 1 | | | | PC1, PC5 | |
| 1 - 20.0 MMBTU/Hr NG/FO Steam Gen. (5) Lo NOx | OOS | | | 1 | | | | PC1,PC5,PC8 | |
| Production Tank System | | | | | | | | | |
| 1 - 2000 BBL COST (2001) VR | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - 2000 BBL COST (2002) VR | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - 2000 BBL COST (2003) VR | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - 2000 BBL COST (2004) VR | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - 2000 BBL COST (2005) VR | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - 2000 BBL COST (2006) VR | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - 2000 BBL COST (2008) VR | | 1 | | | | | | PC1 | |
| 1 - 2000 BBL COST (2009) VR | | 1 | | | | | | PC1 | |
| 1 - 2000 BBL COST (2011) VR | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - 2000 BBL COST (2012) VR | | 1 | | | | | | PC1 | |
| 1 - 2500 BBL COST (C-1) VR (Transamerica Lease) | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - 2000 BBL COST (C-2) VR (Transamerica Lease @ Texcon) | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - 2000 BBL COST (C-3) VR (Transamerica Lease @ Texcon) | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - 30000 BBL COST (30001) VR | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - 2500 BBL PWT (2501) VR | OOS | 1 | | | | | | PC1,PC8 | |
| 1 - Crude Oil Loading Rack BL VR (Transamerica @ C-1 Tank) | OOS | | 4 | | | | | PC1,PC7,PC8 | |
| 1 - Crude Oil Loading Rack BL VR (Texcon @ C-2,C-3 Tanks) | OOS | | 4 | | | | | PC1,PC7,PC8 | |
| 1 - Crude Oil Loading Rack BL VR (2005-2006 Tank Area) | OOS | | 4 | | | | | PC1,PC7,PC8 | |

TABLE NO. 2

| VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT | | | | | | | | | |
|-------------------------------------------------------------------------------------|-----|------|------|------|-------|---------|-------------|-----------|-------------------------|
| Permit to Operate No. 00012 | | | | | | | | | |
| Permitted Equipment and Applicable Requirements | | | | | | | | | |
| Equipment | | 71.1 | 71.3 | 74.9 | 74.15 | 74.15.1 | ATCM Engine | RICE MACT | Additional Requirements |
| Process Heater Prior to Separation Tower | | | | | | | | | |
| 1 - 20.0 MMBTU/Hr NG/FO Natco Crude Oil Process Heater Lo NOx | OOS | | | | 1 | | | | PC1,PC4,PC8 |
| Gas Oil (Diluent) Storage & Injection System | | | | | | | | | |
| 1 - 1500 BBL Gas Oil Storage Tank (1501) VR | OOS | 1 | | | | | | | PC1, PC8 |
| 1 - 1500 BBL Gas Oil Storage Tank (1502) VR | | 1 | | | | | | | PC1 |
| 1 - 1500 BBL Gas Oil Storage Tank (1503) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 700 BBL Gas Oil Storage Tank (701) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 700 BBL Gas Oil Storage Tank (702) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 3500 BBL Gas Oil Storage Tank (3500) VR | | 1 | | | | | | | PC1 |
| 1 - 3000 BBL Gas Oil Storage Tank (3001) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 3000 BBL Gas Oil Storage Tank (3003) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 1500 BBL Gas Oil Storage Tank (1506) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 1500 BBL Gas Oil Storage Tank (1507) VR | | 1 | | | | | | | PC1 |
| 1 - 1000 BBL Gas Oil Storage Tank (1505) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 2000 BBL Gas Oil Storage Tank (2000) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - Gas Oil Loading Rack BL VR (1501 -1503 Tank Area) | OOS | | 4 | | | | | | PC1,PC7,PC8 |
| 1 - Gas Oil Loading Rack BL VR (3500 Tank Area) | | | 4 | | | | | | PC1 |
| Asphalt Tank Heating and Storage | | | | | | | | | |
| 1 - 4.9 MMBTU/Hr Asphalt Heater (Tank 12001) Lo NOx | OOS | | | | | 1 | | | PC1,PC8 |
| 1 - 4.9 MMBTU/Hr Asphalt Heater (P-1) Lo NOx | | | | | | 1 | | | PC1 |
| 1 - 1.0 MMBTU/Hr Asphalt Heater (506) UNC (stdby) | OOS | | | | | 4 | | | PC1,PC8 |
| 1 - 1.0 MMBTU/Hr Asphalt Heater (Shell 1 & 2) UNC (stdby) | OOS | | | | | 4 | | | PC1,PC8 |
| 1 - 12000 BBL Asphalt Storage Tank (12001) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 2000 BBL Asphalt Storage Tank (2007) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 2000 BBL Asphalt Storage Tank (2010) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 800 BBL Asphalt Storage Tank (1001) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 1000 BBL Asphalt Storage Tank (1002) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 1000 BBL Asphalt Storage Tank (1003) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 1000 BBL Asphalt Storage Tank (1004) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 500 BBL Asphalt Storage Tank (505) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 500 BBL Asphalt Storage Tank (506) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 600 BBL Asphalt Storage Tank (Shell 1 & 2) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - 3500 BBL Asphalt Storage Tank (3501) VR | OOS | 1 | | | | | | | PC1,PC8 |
| 1 - Asphalt Loading Rack SF VR (Shell Tanks) | OOS | | 6 | | | | | | PC1,PC6,PC8 |
| 1 - Asphalt Loading Rack SF VR (12001 Tank Farm) | OOS | | 6 | | | | | | PC1,PC6,PC8 |
| 1 - Asphalt Loading Rack SF VR (12001 Tank Farm) | OOS | | 6 | | | | | | PC1,PC6,PC8 |
| 1 - Asphalt Loading Rack SF VR (@ 1002 Tank) | OOS | | 6 | | | | | | PC1,PC6,PC8 |
| 1 - Asphalt Loading Rack SF VR (@ 3501 Tank) | OOS | | 6 | | | | | | PC1,PC6,PC8 |
| Diesel-Fired Emergency Standby Engine | | | | | | | | | |
| 1 - 160 BHP Detroit, Model PTA-1SD-50, Serial No. 292084, used for fire suppression | OOS | | | 7 | | | 1 | 3 | PC8 |
| For Use Throughout Leases | | | | | | | | | |
| 70 - Oil Wells | | | | | | | | | PC1 |
| Exempt Emissions Units | | | | | | | | | |
| 1 - 40 BHP Perkins Diesel Fired Fire Water Pump Engine | OOS | | | | | | | 3 | PC8 |
| 1 - 130 BHP Gasoline Fired Fire Water Pump Engine | OOS | | | 7 | | | | 9 | PC8 |
| OOS - Out of Service | | | | | | | | | |

TITLE V EQUIPMENT LIST DESCRIPTION KEY

For Title V permits, the Permitted Equipment and Applicable Requirements Table contains a number of terms, abbreviations, and acronyms that have been standardized for oilfield facilities. The following list describes many of the terms on an oilfield equipment list:

BHP The output of an internal combustion engine as measured in brake horsepower.

BL A crude oil loading facility that is equipped with bottom loading capabilities.

Condensate Tank A tank that is used for the purpose of storing water and hydrocarbon liquids recovered from natural gas scrubbers. This tank is assumed to operate with a variable liquid level and has an associated throughput limit.

COST A crude oil storage tank that generally operates with a variable liquid level and has an associated throughput limit. An oil shipping tank that has a truck loading rack is a COST by definition. These tanks may also be known as shipping tanks.

Cover Indicates that a petroleum sump, pit, or pond is equipped with a properly installed and maintained cover which complies with Rule 71.4.

EXEMPT A tank, pit, or sump that processes produced water with an ROC content of less than 5 milligrams per liter and is exempt from Rule 71.1 or Rule 71.4.

Gauge or Test Tank A tank that is used for the purpose of production testing a well or group of wells. This tank is assumed to operate with a variable liquid level and has an associated throughput limit.

LACT Tank A Lease Automated Custody Transfer tank that operates at a constant or near constant liquid level and does not have an associated throughput limit. This tank is generally equipped with a LACT pump for pipeline oil shipping. A shipping tank with a truck loading rack is not by definition a LACT tank, but is a COST.

Loading Facility A crude oil loading rack or loading valve used for the transfer of crude oil from a storage tank or group of tanks to a delivery vessel.

Lo-NOx Device has equipment to control the emissions of NOx and CO to meet the requirements of Rules 74.15 or 74.15.1, or best available control technology requirements.

MMBTU/Hr The heat input of an external combustion device as measured in millions of British Thermal Units per hour.

NG Indicates that the equipment is permitted to be fired on natural gas only.

NG/FO Indicates that equipment is permitted to be fired on natural gas with fuel oil or diesel as a backup fuel.

NSCR Engine that is equipped with non-selective catalytic reduction to meet its Rule 74.9 compliance requirements.

Pit Device used to receive emergency or intermittent flows.

PSC Engine that is equipped with a pre-stratified charge to meet its Rule 74.9 compliance requirements.

PWT A produced water tank that generally operates with a constant liquid level and does not have an associated throughput limit. These tanks may also be known as free water knock out (FWKO) tanks.

Rich Burn or Lean Burn A designation associated with a gas-fired internal combustion engine that determines its Rule 74.9 compliance requirements.

SCR Engine or turbine that is equipped with selective catalytic reduction and ammonia injection to meet its Rule 74.9 or Rule 74.23 compliance requirements.

SF A crude oil loading facility that is equipped with submerged fill loading capabilities.

Sump Device used for separation, generally in constant use.

UNC Indicates that the equipment is uncontrolled. For example, a tank that is not equipped with a vapor recovery system, or an engine or heater that is not equipped with NOx controls are labeled UNC.

VR A vapor recovery system that is installed on a tank, loading rack or loading facility, glycol dehydrator, or other piece of process equipment.

Wash Tank A tank that stores and separates oil and water that generally operates with a constant liquid level. It does not have an associated throughput limit.

TITLE V APPLICABLE REQUIREMENT CODE KEY

Rule 71.1. "Crude Oil Production and Separation"

1. Storage tanks shall be equipped with a vapor recovery system that directs all vapors to a gas gathering system or flare (71.1.B.1.a)
2. Storage tanks shall be equipped with a vapor recovery system that directs all vapors to some other control system with a minimum destruction or removal efficiency of 90% by weight (71.1.B.1.b)
3. Tank batteries installed prior to June 20, 1978 are exempt from vapor recovery when processing crude oil having a modified Reid vapor pressure of less than 0.5 psia. Solid roof and pressure-vacuum relief valve is required. (71.1.B.2/71.1.D.1.a)
4. Storage tanks are exempt from the solid roof and vapor recovery requirements if the ROC content of the liquid entering the tank is less than 5 milligrams per liter. (71.1.D.3)
5. Storage tanks are exempt from the solid roof and vapor recovery requirements if a BACT Cost Analysis indicates that maximum emission reduction has already taken place. (71.1.D.4)
6. Portable tanks shall be equipped with closed covers and pressure vacuum valves and have limited exemptions from vapor recovery requirements. (71.1.B.3/71.1.D.1.c)

Rule 71.3. "Transfer of Reactive Organic Compound Liquids"

1. Requirement for submerged fill pipe or bottom loading and exemption from vapor recovery based on low throughput. (71.3.B.1) Requirement for leak-free equipment. (71.3.B.3)
2. Requirement for bottom loaded vapor recovery system which connects to a gas pipeline recovery and distribution system with automatic primary and secondary overfill protection. (71.3.B.2.a.1 and 71.3.B.2.b.1) Requirement for leak-free equipment. (71.3.B.3)
3. Requirement for bottom loaded vapor recovery system which connects to a 90% vapor disposal system with automatic primary and secondary overfill protection. (71.3.B.2.a.2 and 71.3.B.2.b.1) Requirement for leak-free equipment. (71.3.B.3)
4. Requirement for bottom loaded vapor recovery system which connects to a gas pipeline recovery and distribution system and APCO-approved alternative primary and secondary overfill protection. (71.3.B.2.a.1 and 71.3.B.2.b.2) Requirement for leak-free equipment. (71.3.B.3)
5. Requirement for bottom loaded vapor recovery system which connects to a 90% vapor disposal system and APCO-approved alternative primary and secondary overfill protection (71.3.B.2.a.2 and 71.3.B.2.b.2) Requirement for leak-free equipment. (71.3.B.3)
6. Exemption from Rule 71.3 because the crude oil has a modified Reid vapor pressure of less than 0.5 psia. (71.3.E.1)
7. Requirement for submerged fill pipe or bottom loading and exemption from vapor recovery when transfer is from a tank exempt from the vapor recovery requirements of Rule 71.1. (71.3.B.1 and 71.3.E.2) Requirement for leak-free equipment. (71.3.B.3)

8. Requirement for submerged fill pipe or bottom loading and exemption from vapor recovery when transfer is from a tank that is located more than 1200 feet from a loading facility constructed prior to July 1, 1990. (71.3.B.1 and 71.3.E.3) Requirement for leak-free equipment. (71.3.B.3)
9. Exemption from Rule 71.3 because the crude oil is being transferred into a vacuum truck, and not into a ROC liquid delivery vessel as defined in Rule 71.B.26. (71.B.26)

Rule 74.9. "Stationary Internal Combustion Engines"

1. Pre-January 1, 2002 emission limits and post-January 1, 2002 emission limits for natural gas rich burn engines with existing emission controls installed after September 5, 1989. (74.9.B.1 or 74.9.B.2, and 74.9.B.3)
2. Pre-January 1, 2002 emission limits and post-January 1, 2002 emission limits for natural gas lean burn engines with existing emission controls installed after September 5, 1989. (74.9.B.1 or 74.9.B.2, and 74.9.B.3)
3. Post-January 1, 1997 emission limits for natural gas rich burn engines with emission controls installed before September 5, 1989; or installed after March 5, 1992. (74.9.B.1 or 74.9.B.2)
4. Post-January 1, 1997 emission limits for natural gas lean burn engines with emission controls installed before September 5, 1989; or installed after March 5, 1992. (74.9.B.1 or 74.9.B.2) Post-January 1, 1997 emission limit for ammonia, if applicable. (74.9.B.5)
5. Post-January 1, 1997 emission limits for diesel engines. (74.9.B.1 or 74.9.B.2) Post-January 1, 1997 emission limit for ammonia, if applicable. (74.9.B.5)
6. Exemption from Rule 74.9 for engines operated less than 200 hours per calendar year (74.9.D.2)
7. Exemption from Rule 74.9 for emergency standby engines operated during either an emergency or maintenance operation. (74.9.D.3)
8. Exemption from Rule 74.9 for diesel engines with a permitted capacity factor of less than or equal to 15%. (74.9.D.8)
9. Exemption from Rule 74.9 for diesel engines used to power cranes and welding equipment. (74.9.D.9)

Rule 74.15. "Boilers, Steam Generators and Process Heaters"

1. NOx and CO emission limits for units with an annual heat input rate greater than or equal to 9,000 MMBTU per calendar year (74.15.B.1)
2. Tuning and fuel metering requirements for units with an annual heat input rate of less than 9,000 MMBTU per calendar year. (74.15.B.2 and 74.15.D.1)

Rule 74.15.1. "Boilers, Steam Generators and Process Heaters"

1. NOx and CO emission limits for units with an annual heat input greater than or equal to 1,800 MMBTU. (74.15.1.B.1)
2. Tuning and fuel metering requirements for units with an annual heat input rate of greater than or equal to 300 MMBTU and less than 1,800 MMBTU. (74.15.1.B.2 and 74.15.1.D.1)

3. Exemption from tuning requirements for units with an annual heat input rate less than 300 MMBTU and requirement for metering. (74.15.1.B.2 and 74.15.1.D.1)
4. Equipment is currently shut-down and not operating. Upon operation will install fuel meter (74.15.1.D.1). Based on annual heat input will perform tuning (74.15.1.B.2) or will comply with NOx and CO emission limits (74.15.1.B.1).

Section 93115, Title 17, California Code of Regulations California Airborne Toxic Control Measure For Stationary Compression Ignition (CI) Engines

1. In-use emergency fire pump assembly engines
2. In-use emergency engines operated not more than 20 hours per year for maintenance and testing purposes.
3. Engines operated solely on OCS Platforms
4. In-use emergency engines – 50 hours per year
5. Emergency engines installed after January 1, 2005

40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engine (RICE MACT)

1. Existing compression ignition and spark ignition engine compliance dates
2. Existing landfill gas engines – area source
3. Existing emergency diesel engines – area source
4. Existing non-emergency diesel engines ≤ 300 HP – area source
5. Existing non-emergency diesel engines $300 \text{ HP} < X \leq 500 \text{ HP}$ – area source
6. Existing non-emergency diesel engines < 500 HP – area source
7. Existing non-emergency spark-ignited remote engine > 500 HP – area source
8. Existing non-emergency diesel engines greater than 300 HP at an area source of HAPs that qualify under the national security exemption
9. Existing emergency spark ignited engines

3. PERMITTED THROUGHPUT AND CONSUMPTION LIMIT TABLE

Purpose

The purpose of this table is to list the emissions units at this stationary source that have limitations on throughput, fuel consumption, raw material usage, hours of operation, or other parameters that limit the potential to emit of the emissions unit. In some cases, the limit on the potential to emit is expressed directly as a set of pollutants and emission limits in tons per year.

These limitations are applied pursuant to Rule 26, "New Source Review" or Rule 29, "Conditions on Permits." Two sets of limits are listed in this table. The "Throughput Permit Limit" is the enforceable limit pursuant to this permit. Permit conditions that enforce these limits are listed in Section No. 7, "Permit Specific Conditions" of this permit.

The "Calculation Throughput" is used only to calculate permitted emissions pursuant to Rule 29, "Conditions on Permits."

Equipment Description

This portion of the table is the same as the equipment description in the "Permitted Equipment and Applicable Requirements Table."

Throughput Permit Limit

The throughput or consumption limit listed in this column of the table is an enforceable limit on the emissions unit's potential to emit. In the column labeled "District (D)/ Federal (F) Enforceable," a "D" or an "F" denotes whether the limit is only enforceable by the District or whether the limit is a federally-enforceable limit. District-enforceable limits are limits applied solely pursuant to Rule 29, "Conditions on Permits." Limits that have been applied pursuant to Rule 26, "New Source Review" are federally enforceable.

The throughput permit limit may apply to a single emissions unit or to a set of emission units. When the limit applies to set of emissions units, the set consists of the emissions unit with which the limit is listed and the emissions units which follow that have an asterisk in the throughput permit limit column.

Pursuant to Rule 26 and Rule 29, the throughput permit limit is an annual limit which is enforceable based on a period of any twelve (12) consecutive calendar months.

Note that when the calculation throughput (discussed below) corresponds to using the emissions unit full time (8760 hours per year) at maximum rated capacity, the throughput permit limit column contains the notation "No Limit." When District emission calculation procedures do not involve throughput or consumption data, both the throughput permit limit and the calculation throughput

column are left blank.

Calculation Throughput

The throughput or consumption limit listed in this column of the table is the throughput used in the District calculation procedures to calculate permitted emissions for the emissions unit. The calculation throughput may apply to a single emissions unit or to a set of emissions units denoted as discussed above. The calculation throughput is not an enforceable permit limit.

Abbreviations

The following abbreviations have been used in the "Permitted Throughput and Consumption Limit Table" for the "Throughput Permit Limit" column and for the "Calculation Throughput Limit" column:

BBL/Yr: barrels per year

Days/Yr: days per year

FO: fuel oil or diesel fuel

Gal/Yr: gallons per year

Hrs/Day: hours per day

Hrs/Yr: hours per year

Lbs/day: pounds per day

Lbs ROC/Yr: pounds of reactive organic compounds per year

MBBL/Yr: thousands of barrels per year

MGal/Yr: thousands of gallons per year

MMBTU/Yr: million British Thermal Units of heat input per year

MMCF/Yr: million standard cubic feet of natural gas per year

MMGal/Yr: million gallons per year

NG: natural gas

TPY: tons per year

TABLE NO. 3

| VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT | | | | | |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------|------------------------------|--------------------------------------|
| Permit to Operate No. 00012 | | | | | |
| Permitted Throughput/Consumption Limits | | | | | |
| MATFILE\VFV PERMITS\PO0012\PERMIT\Tables_00012-321 | Equipment | Permit Throughput Limit | District (D)/ Federal(F) Enforceable | Calculation Throughput Limit | |
| | Indirect Process Heat | | | | |
| | 1 - 20.0 MMBTU/Hr NG/FO Erie City Boiler (7) Lo NOx | OOS | 144.0 MMCF/Yr NG & 7.1 MGal/Yr FO | F | 144 MMCF/Yr NG & 7.09 Mgal/Yr FO |
| | 1 - 4.0 MMBTU/Hr NG/FO Boiler (5) Standby UNC | OOS | 76.6 MMCF/Yr NG & 13.8 MGal/Yr FO & 82,320 MMBTU/Yr Total Fuel | D | 15.8 MMCF/Yr NG & 10.3 MGal/Yr FO |
| | 1 - 4.5 MMBTU/Hr NG/FO Boiler (6) Standby UNC | OOS | * | D | * |
| | 1 - 3.0 MMBTU/Hr NG/FO Boiler (1) Standby UNC | OOS | * | D | * |
| | 1 - 3.0 MMBTU/Hr NG/FO Boiler (4) Standby UNC | OOS | * | D | * |
| | 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC(3500TF) | OOS | * | D | * |
| | 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC(3500TF) | OOS | * | D | * |
| | 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC(3500TF) | OOS | * | D | * |
| | 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC(3500TF) | OOS | * | D | * |
| | Solids Recycling and Disposal System | | | | |
| | 1 - 150 BBL Slop Tank (TC-14) VR | OOS | 21.9 MBOPY | D | 21.9 MBOPY |
| | 1 - 500 BBL PWT (501) VR | OOS | | | |
| | 1 - 500 BBL PWT (502) VR | OOS | | | |
| | Produced Gas Sweetening System | | | | |
| | 1 (or More) - Nitrite Solution Vessels (No PE) | | | | |
| | Flare | | | | |
| | 1 - 5.0 MMBTU/Hr Flare, PROS, Inc., Model FLTR-1, 45 scf/hr pilot, 26' high, electronic auto ignition pilot, sulfur pre-treatment system, used as backup VR system | | No Limit | F | 43,800 MMBTU/yr |
| | Portable Steam Generators for Thermally EOR | | | | |
| | 1 - 20.0 MMBTU/Hr NG PCL Industrial Services, Inc. Steam Generator (0) w/ Coen QLN-II low NOx burner, automatic FGR, fired on PUC natural gas, with PUC natural gas mixed with produced gas as secondary fuel | | 163.3 MMCF/Yr NG & 0 MGal/Yr FO | F | 163.3 MMCF/Yr NG |
| | 1 - 20.0 MMBTU/Hr NG Steam Generator (1) Lo NOx | | 163.3 MMCF/Yr NG & 0 MGal/Yr FO | F | 163.3 MMCF/Yr NG |
| | 1 - 20.0 MMBTU/Hr NG Steam Generator (2) Lo NOx | OOS | 163.3 MMCF/Yr NG & 0 MGal/Yr FO | F | 163.3 MMCF/Yr NG |
| | 1 - 20.0 MMBTU/Hr NG/FO Steam Gen. (3) Lo NOx | OOS | 163.3 MMCF/Yr NG & 5.91 MGal/Yr FO | F | 163.3 MMCF/Yr NG & 5.91 MGal/Yr FO |
| | 1 - 20.0 MMBTU/Hr NG/FO Steam Gen. (4) Lo NOx | | 163.3 MMCF/Yr NG & 5.91 MGal/Yr FO | F | 163.3 MMCF/Yr NG & 5.91 MGal/Yr FO |
| | 1 - 20.0 MMBTU/Hr NG/FO Steam Gen. (5) Lo NOx | OOS | 163.3 MMCF/Yr NG & 5.91 MGal/Yr FO | F | 163.3 MMCF/Yr NG & 5.91 MGal/Yr FO |
| | Production Tank System | | | | |
| | 1 - 2000 BBL COST (2001) VR | OOS | 2,241.0 MBBL/Yr | D | 547.0 MBBL/Yr |
| | 1 - 2000 BBL COST (2002) VR | OOS | * | D | 547.0 MBBL/Yr |
| | 1 - 2000 BBL COST (2003) VR | OOS | * | D | 143.4 MBBL/Yr |
| | 1 - 2000 BBL COST (2004) VR | OOS | * | D | 143.4 MBBL/Yr |
| | 1 - 2000 BBL COST (2005) VR | OOS | * | D | 143.4 MBBL/Yr |
| | 1 - 2000 BBL COST (2006) VR | OOS | * | D | 143.4 MBBL/Yr |
| | 1 - 2000 BBL COST (2008) VR | | * | D | 143.4 MBBL/Yr |
| | 1 - 2000 BBL COST (2009) VR | | * | D | 143.4 MBBL/Yr |
| | 1 - 2000 BBL COST (2011) VR | OOS | * | D | 143.4 MBBL/Yr |
| | 1 - 2000 BBL COST (2012) VR | | * | D | 143.4 MBBL/Yr |
| | 1 - 2500 BBL COST (C-1) VR (Transamerica Lease) | OOS | 136.3 MBBL/Yr | D | 136.3 MBBL/Yr |
| | 1 - 2000 BBL COST (C-2) VR (Transamerica Lease@Texcon) | OOS | 356.0 MBBL/Yr | D | 178.0 MBBL/Yr |
| | 1 - 2000 BBL COST (C-3) VR (Transamerica Lease@Texcon) | OOS | * | D | 178.0 MBBL/Yr |
| | 1 - 30000 BBL COST (30001) VR | OOS | 110.0 MBBL/Yr | D | 110.0 MBBL/Yr |
| | 1 - 2500 BBL PWT (2501) VR | OOS | | | |
| | 1 - Crude Oil Loading Rack BL VR (Transamerica@C-1 Tank) | OOS | 191.4 MBBL/Yr | D | 191.4 MBBL/Yr |
| | 1 - Crude Oil Loading Rack BL VR (Texcon@C-2,C-3 Tanks) | OOS | 227.9 MBBL/Yr | D | 227.9 MBBL/Yr |
| | 1 - Crude Oil Loading Rack BL VR (2005-2006 Tank Area) | OOS | 529.2 MBBL/Yr | D | 529.2 MBBL/Yr |
| | Process Heater Prior to Separation Tower | | | | |
| | 1 - 20.0 MMBTU/Hr NG/FO Natco Crude Oil Process Heater Lo NOx | OOS | 136.1 MMCF/Yr NG & 7.1 MGal/Yr FO & 143,801.1 MMBTU/Yr Total Fuel | F | 136.1 MMCF/Yr NG and 7.09 MGal/Yr FO |
| | Gas Oil (Diluent) Storage & Injection System | | | | |
| | 1 - 1500 BBL Gas Oil Storage Tank (1501) VR | OOS | 702.4 MBBL/Yr | F | 115.0 MBBL/Yr |
| | 1 - 1500 BBL Gas Oil Storage Tank (1502) VR | | * | F | 91.4 MBBL/Yr |

TABLE NO. 3

| VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT | | | | |
|---------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------|------------------------------|------------------------------------|
| Permit to Operate No. 00012 | | | | |
| Permitted Throughput/Consumption Limits | | | | |
| Equipment | Permit Throughput Limit | District (D)/ Federal(F) Enforceable | Calculation Throughput Limit | |
| 1 - 1500 BBL Gas Oil Storage Tank (1503) VR | OOS | * | F | 70.0 MBBL/Yr |
| 1 - 700 BBL Gas Oil Storage Tank (701) VR | OOS | * | F | 100.0 MBBL/Yr |
| 1 - 700 BBL Gas Oil Storage Tank (702) VR | OOS | * | F | 100.0 MBBL/Yr |
| 1 - 3500 BBL Gas Oil Storage Tank (3500) VR | OOS | * | F | 20.0 MBBL/Yr |
| 1 - 3000 BBL Gas Oil Storage Tank (3001) VR | OOS | * | F | 20.0 MBBL/Yr |
| 1 - 3000 BBL Gas Oil Storage Tank (3003) VR | OOS | * | F | 20.0 MBBL/Yr |
| 1 - 1500 BBL Gas Oil Storage Tank (1506) VR | OOS | * | F | 146.0 MBBL/Yr |
| 1 - 1500 BBL Gas Oil Storage Tank (1507) VR | OOS | * | F | 10.0 MBBL/Yr |
| 1 - 1000 BBL Gas Oil Storage Tank (1505) VR | OOS | * | F | 5.0 MBBL/Yr |
| 1 - 2000 BBL Gas Oil Storage Tank (2000) VR | OOS | * | F | 5.0 MBBL/Yr |
| 1 - Gas Oil Loading Rack BL VR (1501 -1503 Tank Area) | OOS | 345.2 MBBL/Yr | F | 345.2 MBBL/Yr |
| 1 - Gas Oil Loading Rack BL VR (3500 Tank Area) | OOS | * | F | * |
| Asphalt Tank Heating and Storage | | | | |
| 1 - 4.9 MMBTU/Hr Asphalt Heater (Tank 12001) Lo NOx | OOS | ** | D | 60.8 MMCF/Yr NG and 3.5 MGal/Yr FO |
| 1 - 4.9 MMBTU/Hr Asphalt Heater (P-1) Lo NOx | OOS | ** | D | * |
| 1 - 1.0 MMBTU/Hr Asphalt Heater (506) UNC (standby) | OOS | ** | D | *** |
| 1 - 1.0 MMBTU/Hr Asphalt Heater (Shell 1 & 2) UNC (standby) | OOS | ** | D | *** |
| 1 - 12000 BBL Asphalt Storage Tank (12001) VR | OOS | 1,034.9 MBBL/Yr | D | 300.0 MBBL/Yr |
| 1 - 2000 BBL Asphalt Storage Tank (2007) VR | OOS | * | D | 150.0 MBBL/Yr |
| 1 - 2000 BBL Asphalt Storage Tank (2010) VR | OOS | * | D | 150.0 MBBL/Yr |
| 1 - 800 BBL Asphalt Storage Tank (1001) VR | OOS | * | D | 10.0 MBBL/Yr |
| 1 - 1000 BBL Asphalt Storage Tank (1002) VR | OOS | * | D | 50.0 MBBL/Yr |
| 1 - 1000 BBL Asphalt Storage Tank (1003) VR | OOS | * | D | 30.0 MBBL/Yr |
| 1 - 1000 BBL Asphalt Storage Tank (1004) VR | OOS | * | D | 30.0 MBBL/Yr |
| 1 - 500 BBL Asphalt Storage Tank (505) VR | OOS | * | D | 0.0 MBBL/Yr |
| 1 - 500 BBL Asphalt Storage Tank (506) VR | OOS | * | D | 0.0 MBBL/Yr |
| 1 - 600 BBL Asphalt Storage Tank (Shell 1 & 2) VR | OOS | * | D | 21.9 MBBL/Yr |
| 1 - 3500 BBL Asphalt Storage Tank (3501) VR | OOS | * | D | 293.0 MBBL/Yr |
| 1 - Asphalt Loading Rack SF VR (Shell Tanks) | OOS | 17,178.0 MGal/Yr | D | 17,178 MGal/Yr |
| 1 - Asphalt Loading Rack SF VR (12001 Tank Farm) | OOS | * | D | * |
| 1 - Asphalt Loading Rack SF VR (12001 Tank Farm) | OOS | * | D | * |
| 1 - Asphalt Loading Rack SF VR (@ 1002 Tank) | OOS | * | D | * |
| 1 - Asphalt Loading Rack SF VR (@ 3501 Tank) | OOS | * | D | * |
| Diesel-Fired Emergency Standby Engine | | | | |
| 1 - 160 BHP Detroit, Model PTA-1SD-50, Serial No 292084, used for fire suppression | OOS | 20 Hr/yr**** | D | 20 Hr/yr |
| For Use Throughout Leases | | | | |
| 70 - Oil Wells | | | | |
| * - Included in Limit Above | | | | |
| ** - Included in Permit Throughput Limit Above for Standby Boiler (5) | | | | |
| *** - Included in Calculation Throughput Limit for standby Boiler (5) | | | | |
| **** - Limit for maintenance and testing, does not include emergency operation | | | | |
| OOS - Out of Service | | | | |
| Note: The MMBtu/Yr values were calculated based on Heating Values of 1050 Btu/Scf for NG and 141,000 Btu/Gal for FO | | | | |

4. PERMITTED EMISSIONS TABLE

Purpose

The purpose of this table is to document the permitted emissions for this stationary source. Rule 29, "Conditions on Permits," requires permitted emissions to be included on each Permit to Operate. Rule 29 is not federally enforceable.

The permitted emissions table also characterizes the amount and type of criteria air pollutants emitted by this stationary source.

Rule 29 requires that annual permitted emissions be based on a 12 calendar month rolling period and be expressed in units of tons per year. Hourly permitted emissions are required to be expressed in units of pounds per hour. Permitted emissions for a stationary source are required to be determined by aggregating the permitted emissions for each emissions unit at the stationary source.

In general, permitted emissions are calculated based on throughput or consumption data for an emission unit, specific physical characteristics of the emission unit, and emission factors. The emission factors may be standard published emission factors, or they may be derived from source test data or specific emission limits that apply to the emissions unit. In some cases, permitted emissions are expressed directly as a set of pollutants and emission limits in tons per year without reference to any calculation method.

Section No. 3, "Permitted Throughput and Consumption Limit Table," contains information on the throughput and consumption limits that are enforceable at this stationary source. In addition, other sections of this permit contain conditions that act to enforce specific portions of the permitted emissions table.

Equipment Description

This portion of the table is the same as the equipment description in the "Permitted Equipment and Applicable Requirements Table."

Tons Per Year

This column of the table represents the permitted emissions in units of tons per year for ROC (reactive organic compounds), NO_x (nitrogen oxides), PM (particulate matter), SO_x (sulfur oxides), and CO (carbon monoxide). In some cases, emissions of non-criteria pollutants of interest may also be listed. Pursuant to Rule 29, annual permitted emissions shall be the annual emissions used to determine compliance for issuance of any new or revised permit issued after October 22, 1991. For emissions units for which no new or revised permit has been issued since

October 22, 1991, annual permitted emissions generally reflect actual historical emissions from the emissions unit.

The permitted emissions limit may apply to a single emissions unit or to a set of emission units. When the limit applies to set of emissions units, the set consists of the emissions unit with which the limit is listed and the emissions units which follow that have an asterisk in the pollutant columns.

Pounds Per Hour

This column of the table represents the permitted emissions in units of pounds per hour for ROC (reactive organic compounds), NO_x (nitrogen oxides), PM (particulate matter), SO_x (sulfur oxides), and CO (carbon monoxide). Pursuant to Rule 29, hourly permitted emissions shall be calculated based on the maximum quantity of each air pollutant which may be emitted from the emissions unit during a one-hour period, as limited by any applicable rules or permit conditions.

Hazardous Air Pollutants

This permit does not provide information that characterizes the emissions of hazardous air pollutants (HAPS) from this facility. This information can be obtained from the reissuance application or the facility's AB-2588, Air Toxics "Hot Spots," Report referenced at the bottom of the "Permitted Emissions Table." For Outer Continental Source (OCS) sources and other sources not subject to AB-2588, HAP emissions information is included in the permit reissuance application and is maintained by the stationary source.

TABLE NO. 4

| VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT | | | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------|------|------|------|-----------------|------|------|------|-------|------|
| Permit to Operate No. 00012 | | | | | | | | | | | |
| Permitted Emissions | | | | | | | | | | | |
| Equipment | TONS PER YEAR | | | | | POUNDS PER HOUR | | | | | |
| | ROC | NOx | PM | SOx | CO | ROC | NOx | PM | SOx | CO | |
| Indirect Process Heat | | | | | | | | | | | |
| 1 - 20.0 MMBTU/Hr NG/FO Erie City Boiler (7) Lo NOx | OOS | 0.40 | 3.33 | 0.56 | 3.15 | 7.34 | 0.10 | 2.84 | 0.28 | 10.18 | 1.93 |
| 1 - 4.0 MMBTU/Hr NG/FO Boiler (5) Standby UNC | OOS | 0.04 | 0.89 | 0.07 | 0.69 | 0.69 | 0.02 | 0.57 | 0.06 | 2.04 | 0.32 |
| 1 - 4.5 MMBTU/Hr NG/FO Boiler (6) Standby UNC | OOS | ** | ** | ** | ** | ** | 0.02 | 0.64 | 0.06 | 2.29 | 0.36 |
| 1 - 3.0 MMBTU/Hr NG/FO Boiler (1) Standby UNC | OOS | ** | ** | ** | ** | ** | 0.02 | 0.43 | 0.04 | 1.53 | 0.24 |
| 1 - 3.0 MMBTU/Hr NG/FO Boiler (4) Standby UNC | OOS | ** | ** | ** | ** | ** | 0.02 | 0.43 | 0.04 | 1.53 | 0.24 |
| 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC(3500TF) | OOS | ** | ** | ** | ** | ** | 0.02 | 0.45 | 0.04 | 1.60 | 0.25 |
| 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC(3500TF) | OOS | ** | ** | ** | ** | ** | 0.02 | 0.45 | 0.04 | 1.60 | 0.25 |
| 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC(3500TF) | OOS | ** | ** | ** | ** | ** | 0.02 | 0.45 | 0.04 | 1.60 | 0.25 |
| 1 - 3.15 MMBTU/Hr NG/FO Boiler Standby UNC(3500TF) | OOS | ** | ** | ** | ** | ** | 0.02 | 0.45 | 0.04 | 1.60 | 0.25 |
| Solids Recycling and Disposal System | | | | | | | | | | | |
| 1 - 150 BBL Slop Tank (TC-14) VR | OOS | 0.01 | | | | | 0.00 | | | | |
| 1 - 500 BBL PWT (501) VR | OOS | 0.01 | | | | | 0.00 | | | | |
| 1 - 500 BBL PWT (502) VR | OOS | 0.03 | | | | | 0.01 | | | | |
| Produced Gas Sweetening System | | | | | | | | | | | |
| 1 (or More) - Nitrite Solution Vessels (No PE) | | | | | | | | | | | |
| Flare | | | | | | | | | | | |
| 1 - 5.0 MMBTU/Hr Flare, PROS, Inc., Model FLTR-1, 45 scf/hr pilot, 26' high, electronic auto ignition pilot, sulfur pre-treatment system, used as backup VR system | | 1.13 | 1.49 | 0.11 | 0.07 | 8.10 | 0.26 | 0.34 | 0.03 | 0.02 | 1.85 |
| Portable Steam Generators for Thermally EOR | | | | | | | | | | | |
| 1 - 20.0 MMBTU/Hr NG PCL Industrial Services, Inc. Steam Generator (0) w/ Coen QLN-II Low NOx burner, automatic FGR, fired on PUC natural gas, with PUC natural gas mixed with produced gas as secondary fuel | OOS | 0.45 | 0.27 | 0.62 | 0.27 | 2.73 | 0.10 | 0.06 | 0.14 | 0.06 | 0.63 |
| 1 - 20.0 MMBTU/Hr NG Steam Generator (1) Lo NOx | | 4.53 | 4.08 | 0.62 | 3.29 | 4.59 | 1.05 | 0.95 | 0.14 | 0.77 | 1.07 |
| 1 - 20.0 MMBTU/Hr NG Steam Generator (2) Lo NOx | OOS | 0.45 | 4.08 | 0.62 | 3.29 | 3.69 | 0.10 | 0.95 | 0.14 | 0.77 | 0.86 |
| 1 - 20.0 MMBTU/Hr NG/FO Steam Gen. (3) Lo NOx | OOS | 1.79 | 4.16 | 0.63 | 3.40 | 8.25 | 0.42 | 3.14 | 0.24 | 4.26 | 1.92 |
| 1 - 20.0 MMBTU/Hr NG/FO Steam Gen. (4) Lo NOx | | 0.45 | 4.17 | 0.63 | 3.40 | 6.87 | 0.10 | 3.74 | 0.24 | 4.26 | 1.60 |
| 1 - 20.0 MMBTU/Hr NG/FO Steam Gen. (5) Lo NOx | OOS | 0.45 | 4.17 | 0.63 | 3.40 | 6.87 | 0.10 | 3.74 | 0.24 | 4.26 | 1.60 |
| Production Tank System | | | | | | | | | | | |
| 1 - 2000 BBL COST (2001) VR | OOS | 0.37 | | | | | 0.09 | | | | |
| 1 - 2000 BBL COST (2002) VR | OOS | 0.37 | | | | | 0.09 | | | | |
| 1 - 2000 BBL COST (2003) VR | OOS | 0.50 | | | | | 0.11 | | | | |
| 1 - 2000 BBL COST (2004) VR | OOS | 0.50 | | | | | 0.11 | | | | |
| 1 - 2000 BBL COST (2005) VR | OOS | 0.50 | | | | | 0.11 | | | | |
| 1 - 2000 BBL COST (2006) VR | OOS | 0.50 | | | | | 0.11 | | | | |
| 1 - 2000 BBL COST (2008) VR | | 0.81 | | | | | 0.18 | | | | |
| 1 - 2000 BBL COST (2009) VR | | 0.81 | | | | | 0.18 | | | | |
| 1 - 2000 BBL COST (2011) VR | OOS | 0.81 | | | | | 0.18 | | | | |
| 1 - 2000 BBL COST (2012) VR | | 0.81 | | | | | 0.18 | | | | |
| 1 - 2500 BBL COST (C-1) VR (Transamerica Lease) | OOS | 0.13 | | | | | 0.03 | | | | |
| 1 - 2000 BBL COST (C-2) VR (Transamerica Lease@Texcon) | OOS | 0.15 | | | | | 0.03 | | | | |
| 1 - 2000 BBL COST (C-3) VR (Transamerica Lease@Texcon) | OOS | 0.15 | | | | | 0.03 | | | | |
| 1 - 30000 BBL COST (30001) VR | OOS | 0.58 | | | | | 0.14 | | | | |
| 1 - 2500 BBL PWT (2501) VR | OOS | 0.05 | | | | | 0.01 | | | | |
| 1 - Crude Oil Loading Rack BL VR (Transamerica@C-1 Tank) | OOS | 1.10 | | | | | 2.30 | | | | |
| 1 - Crude Oil Loading Rack BL VR (Texcon@C-2,C-3 Tanks) | OOS | 1.31 | | | | | 2.30 | | | | |
| 1 - Crude Oil Loading Rack BL VR (2005-2006 Tank Area) | OOS | 0.44 | | | | | 0.34 | | | | |
| Process Heater Prior to Separation Tower | | | | | | | | | | | |
| 1 - 20.0 MMBTU/Hr NG/FO Natco Crude Oil Process Heater Lo NOx | OOS | 0.37 | 2.96 | 0.53 | 2.99 | 5.73 | 0.10 | 2.84 | 0.28 | 10.18 | 1.60 |

TABLE NO. 4

| VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT | | | | | | | | | | |
|-------------------------------------------------------------------------------------|---------------|----------------------|-------|------|-------|-------------------------------|-------|-------|------|-------------|
| Permit to Operate No. 00012 | | | | | | | | | | |
| Permitted Emissions | | | | | | | | | | |
| Equipment | TONS PER YEAR | | | | | POUNDS PER HOUR | | | | |
| | ROC | NOx | PM | SOx | CO | ROC | NOx | PM | SOx | CO |
| Gas Oil (Diluent) Storage & Injection System | | | | | | | | | | |
| 1 - 1500 BBL Gas Oil Storage Tank (1501) VR | OOS | 0.35 | | | | | 0.08 | | | |
| 1 - 1500 BBL Gas Oil Storage Tank (1502) VR | | 0.33 | | | | | 0.08 | | | |
| 1 - 1500 BBL Gas Oil Storage Tank (1503) VR | OOS | 0.32 | | | | | 0.07 | | | |
| 1 - 700 BBL Gas Oil Storage Tank (701) VR | OOS | 0.20 | | | | | 0.04 | | | |
| 1 - 700 BBL Gas Oil Storage Tank (702) VR | OOS | 0.2 | | | | | 0.04 | | | |
| 1 - 3500 BBL Gas Oil Storage Tank (3500) VR | | 0.21 | | | | | 0.05 | | | |
| 1 - 3000 BBL Gas Oil Storage Tank (3001) VR | OOS | 0.19 | | | | | 0.04 | | | |
| 1 - 3000 BBL Gas Oil Storage Tank (3003) VR | OOS | 0.19 | | | | | 0.04 | | | |
| 1 - 1500 BBL Gas Oil Storage Tank (1506) VR | OOS | 0.38 | | | | | 0.09 | | | |
| 1 - 1500 BBL Gas Oil Storage Tank (1507) VR | | 0.09 | | | | | 0.02 | | | |
| 1 - 1000 BBL Gas Oil Storage Tank (1505) VR | OOS | 0.05 | | | | | 0.02 | | | |
| 1 - 2000 BBL Gas Oil Storage Tank (2000) VR | OOS | 0.09 | | | | | 0.03 | | | |
| 1 - Gas Oil Loading Rack BL VR (1501 -1503 Tank Area) | OOS | 1.98 | | | | | 4.60 | | | |
| 1 - Gas Oil Loading Rack BL VR (3500 Tank Area) | | * | | | | | * | | | |
| Asphalt Tank Heating and Storage | | | | | | | | | | |
| 1 - 4.9 MMBTU/Hr Asphalt Heater (Tank 12001) Lo NOx | OOS | 0.17 | 1.18 | 0.23 | 1.36 | 2.56 | 0.03 | 0.70 | 0.07 | 2.50 0.39 |
| 1 - 4.9 MMBTU/Hr Asphalt Heater (P-1) Lo NOx | | * | * | * | * | * | 0.03 | 0.70 | 0.07 | 2.50 0.39 |
| 1 0 MMBTU/Hr Asphalt Heater (506) UNC (stndby) | OOS | ** | ** | ** | ** | ** | 0.01 | 0.14 | 0.01 | 0.51 0.08 |
| 1 0 MMBTU/Hr Asphalt Heater (Shell 1 & 2) UNC (stndby) | OOS | ** | ** | ** | ** | ** | 0.01 | 0.14 | 0.01 | 0.51 0.08 |
| 1 - 12000 BBL Asphalt Storage Tank (12001) VR | OOS | 0.27 | | | | | 0.06 | | | |
| 1 - 2000 BBL Asphalt Storage Tank (2007) VR | OOS | 0.07 | | | | | 0.01 | | | |
| 1 - 2000 BBL Asphalt Storage Tank (2010) VR | OOS | 0.07 | | | | | 0.01 | | | |
| 1 - 800 BBL Asphalt Storage Tank (1001) VR | OOS | 0.02 | | | | | 0.00 | | | |
| 1 - 1000 BBL Asphalt Storage Tank (1002) VR | OOS | 0.04 | | | | | 0.01 | | | |
| 1 - 1000 BBL Asphalt Storage Tank (1003) VR | OOS | 0.03 | | | | | 0.00 | | | |
| 1 - 1000 BBL Asphalt Storage Tank (1004) VR | OOS | 0.03 | | | | | 0.00 | | | |
| 1 - 500 BBL Asphalt Storage Tank (505) VR | OOS | 0.01 | | | | | 0.00 | | | |
| 1 - 500 BBL Asphalt Storage Tank (506) VR | OOS | 0.01 | | | | | 0.00 | | | |
| 1 - 600 BBL Asphalt Storage Tank (Shell 1 & 2) VR | OOS | 0.01 | | | | | 0.00 | | | |
| 1 - 3500 BBL Asphalt Storage Tank (3501) VR | OOS | 0.12 | | | | | 0.03 | | | |
| 1 - Asphalt Loading Rack SF VR (Shell Tanks) | OOS | 0.23 | | | | | 0.49 | | | |
| 1 - Asphalt Loading Rack VR (12001 Tank Farm) | OOS | * | | | | | * | | | |
| 1 - Asphalt Loading Rack SF VR (12001 Tank Farm) | OOS | * | | | | | * | | | |
| 1 - Asphalt Loading Rack SF VR (@ 1002 Tank) | OOS | * | | | | | * | | | |
| 1 - Asphalt Loading Rack SF VR (@ 3501 Tank) | OOS | * | | | | | * | | | |
| Diesel-Fired Emergency Standby Engine | | | | | | | | | | |
| 1 - 160 BHP Detroit, Model PTA-1SD-50, Serial No. 292084, used for fire suppression | OOS | 0.00 | 0.05 | 0.00 | 0.00 | 0.01 | 0.04 | 0.53 | 0.04 | 0.01 0.12 |
| For Use Throughout Leases | | | | | | | | | | |
| 70 - Oil Wells | | 25.55 | | | | | 5.84 | | | |
| * - Included in Emissions Above | | | | | | | | | | |
| ** - Boiler (5) Includes All Standby Boilers and Heaters | | | | | | | | | | |
| OOS - Out of Service | | | | | | | | | | |
| Total Permitted Emissions | | 51.21 | 30.83 | 5.25 | 25.31 | 57.43 | 20.79 | 24.68 | 2.29 | 54.58 16.28 |
| HAP Emissions Ref.: AB 2588 Air Toxics Report | | Reporting Year: 1994 | | | | Submittal Date: July 17, 1996 | | | | |

5. OIL WELL LIST

This permit authorizes the operation of a maximum number of wells for the production of oil or natural gas. This section of the permit contains a list of the wells currently authorized to be operated. When changes to the list are desired, the permit holder is required to submit an application to modify the Part 70 Permit.

An Authority to Construct is also required prior to adding a well that is newly drilled to the oil well list or prior to increasing the number of wells on the oil well list.

Section No. 8, "Permit Specific Conditions", includes a condition that limits the maximum number of producing wells at this stationary source. If applicable, Section No. 8 also includes a condition that requires best available control technology (BACT) on specific wells that were subject to Rule 26, "New Source Review".

Ventura County Air Pollution Control District

OIL WELL LIST

Part 70 Permit No. 00012

The following oil wells are on permit with at the Tenby Production Facility:

Philtom Lease Wells

Janet Culberson 2

Chase Lease Wells

| | | |
|----------|----------|-----------|
| El-Rio 1 | Chase 14 | Chase 28 |
| El-Rio 2 | Chase 15 | Chase 29 |
| El-Rio 5 | Chase 16 | Chase 30 |
| El-Rio 7 | Chase 17 | Chase 31 |
| Chase 1 | Chase 18 | Chase 32 |
| Chase 2 | Chase 20 | Chase 33 |
| Chase 3 | Chase 21 | Chase 34 |
| Chase 5 | Chase 22 | Chase 35 |
| Chase 6 | Chase 23 | Chase C8 |
| Chase 8 | Chase 24 | Chase E9 |
| Chase 9 | Chase 25 | Chase D11 |
| Chase 11 | Chase 26 | Chase F12 |
| Chase 12 | Chase 27 | |

Transamerica Lease Wells

| | | |
|------------|------------|------------------|
| Texcon 1 | Texcon 213 | Texcon 711 |
| Texcon 203 | Texcon 214 | Texcon 713 |
| Texcon 204 | Texcon 215 | Texcon 715 |
| Texcon 205 | Texcon 216 | Texcon 716 |
| Texcon 206 | Texcon 217 | Texcon 717 |
| Texcon 207 | Texcon 218 | Texcon 718 |
| Texcon 208 | Texcon 219 | Texcon 719 |
| Texcon 209 | Texcon 702 | Transamerica D10 |
| Texcon 210 | Texcon 709 | TA B5 |
| Texcon 212 | Texcon 710 | TA C2 |

Total Number of Wells: 70

6. EXEMPT EQUIPMENT LIST

Rule 33.2.A.3 (Part 70 Permits - Application Contents) requires the applicant to provide a list of all emissions units located at the stationary source that are exempt pursuant to Rule 23 based on size or production rate. Pursuant to Rule 33.2.A.3, emissions from insignificant activities do not need to be included in the permit application.

This section of the permit contains a table entitled "Insignificant Activities (Exempt Equipment)". This table is a list of insignificant activities (exempt equipment) at the facility that are exempt from permit based on a size or production rate exemption in Rule 23, "Exemptions From Permit". Insignificant Activity is defined in Rule 33.1 (Part 70 Permits – Definitions). The permittee shall provide calculations, usage records, emission records, and/or operational data as necessary to substantiate an activity as insignificant.

This table is presented for informational purposes only. Any changes to this list are not considered to be permit modifications, nor is the list considered to be enforceable. As detailed in Rule 33.2.A.3, this list is required to be submitted with an application for permit reissuance. The general requirements listed in Section No. 9 of this permit may apply to these insignificant activities.

Ventura County Air Pollution Control District
INSIGNIFICANT ACTIVITIES (EXEMPT EQUIPMENT)
 Part 70 Permit No. 00012

| INSIGNIFICANT ACTIVITIES (EXEMPT EMISSION UNITS) | BASIS FOR EXEMPTION (Size/Production Rate) | RULE 23 CITATION |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------|
| Ajax Boiler at Texcon | < 1 MMBTU/Hr | 23.C.1 |
| 40 BHP Perkins Diesel Fired Fire Water Pump Engine | < 50 BHP | 23.D.6 |
| 130 BHP Gasoline Fire Water Pump | Spark-ignited engine used for emergency pumping of water for fire protection, and engine maintenance operation is < 50 hr/yr | 23.D.7.a |

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7. SPECIFIC APPLICABLE REQUIREMENTS (ATTACHMENTS)

As discussed in Section No. 2, "Permitted Equipment and Applicable Requirements Table", the emissions units at this stationary source listed in the table have requirements that are specifically applicable to them. The applicable requirements are based on the District's prohibitory rules, federal NSPS (40 CFR Part 60), federal NESHAPS (40 CFR Part 61), and federal NESHAPS/MACT (40 CFR Part 63).

In this section of the permit, the permit conditions that are associated with each specific applicable requirement are listed in an individual attachment. The attachment is identified with the label "Attachment (APCD Rule No. or CFR No.) #" in the lower left corner. Each attachment has an applicability section that describes how and why this attachment applies to the specific emissions unit. The attachment may apply to one or more of the emissions units listed in the Permitted Equipment and Applicable Requirements Table in Section No. 2.

**Ventura County Air Pollution Control District
Rule 71.1.B.1.a Applicable Requirements
Tanks Equipped with Vapor Recovery**

**Rule 71.1, "Crude Oil Production and Separation"
Adopted 06/16/92, Federally-Enforceable**

**Rule 74.10, "Components at Crude Oil and Natural Gas Production and Processing
Facilities"
Adopted 03/10/98, Federally-Enforceable**

Applicability:

This attachment applies to tanks at this stationary source equipped with a vapor recovery system which directs all vapors to a fuel gas system, a sales gas system, or to a flare. Specifically, this attachment applies to all storage tanks in a tank battery including wash tanks, produced water tanks, and wastewater separators, that are used in the production, gathering, storage, processing, and separation of crude oil and natural gas from any petroleum production permit unit prior to custody transfer. This attachment does not apply to portable tanks or other tanks not equipped with vapor recovery.

A tank is defined as a container, constructed primarily of nonearthen materials, used for the purpose of storing or holding petroleum material, or for the purpose of separating water and/or gas from petroleum material. A tank battery is defined as any tank or aggregation of tanks. An aggregation of tanks is considered a tank battery only if the tanks are located so that no one tank is more than 150 feet from any other tank, edge to edge.

The tank's hatches and other inlet and outlet liquid and gas piping connections are considered to be components subject to the leak requirements of APCD Rule 74.10, "Components at Crude Oil and Natural Gas Production and Processing Facilities".

Conditions:

1. Pursuant to Rule 71.1.B.1.a, all tanks shall be equipped with a properly installed, maintained and operated vapor recovery system. The vapor disposal portion of the vapor recovery system shall consist of either a system which directs all vapors to a fuel gas system, a sales gas system, or to a flare that combusts reactive organic compounds.
2. Pursuant to Rule 71.1.D.2, the vapor recovery provisions of Rule 71.1.B.1.a shall not apply during maintenance operations on vapor recovery systems or tank batteries, including wash tanks, produced water tanks and wastewater separators, if the Air Pollution Control District is notified verbally at least 24 hours prior to the maintenance operation and if the maintenance operation will take no more than 24 hours to complete.

3. The tank's hatches and other inlet and outlet gas and liquid piping connections are components subject to the leak requirements of Rule 74.10, "Components at Crude Oil and Natural Gas Production and Processing Facilities".
4. On a quarterly basis, permittee shall monitor the storage tank vapor recovery system to ensure that compliance with Rule 71.1.B.1.a is being maintained. This shall include an inspection of the following components, as applicable, for proper operation: gas compressor, hatches, relief valves, pressure regulators, flare. Permittee shall keep dated records of the quarterly inspections and tank maintenance activities. These records shall be maintained at the facility and submitted to the District upon request.
5. On an annual basis, permittee shall certify that storage tanks at the facility are complying with Rule 71.1.B.1.a. This annual compliance certification shall include verifying that the tanks are equipped with a vapor recovery system.

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Ventura County Air Pollution Control District
Rules 71.3.B.2.a.1 and 71.3.B.2.b.2 Applicable Requirements
ROC Liquid Loading Facilities
Bottom Loaded Vapor Recovery System To Gas Pipeline
District-Approved Alternative
Primary and Secondary Overfill Protection

Rule 71.3, "Transfer of Reactive Organic Compound Liquids"
Adopted 6/16/92, Federally-Enforceable

Applicability:

This attachment applies to equipment used to transfer reactive organic compound (ROC) liquids with a Modified Reid Vapor Pressure (MRVP) greater than or equal to 0.5 psia. This attachment does not apply to the transfer of gasoline, or to the transfer of ROC liquids via pipeline.

Specifically, this attachment applies to loading facilities that are equipped with a bottom-loaded vapor recovery system that connects to a gas pipeline recovery and distribution system and are equipped with a District-approved alternative primary and secondary overfill protection system.

A loading facility is defined as any aggregation or combination of organic liquid loading equipment which is located so that all the organic liquid loading outlets for such aggregation or combination of loading equipment can be encompassed within any circle of 300 feet in diameter.

Conditions:

1. Pursuant to Rule 71.3.B.2.a.1, no person shall transfer ROC liquids into any ROC liquid delivery vessel without utilizing a bottom-loaded vapor recovery system that prevents the displaced vapors during loading from being released into the atmosphere. The vapor recovery system shall be capable of collecting all ROC vapors, and shall have a vapor return or condensation system that connects to a gas pipeline recovery and distribution system.

2. Pursuant to Rule 71.3.B.2.b.2, no person shall transfer ROC liquids into any ROC liquid delivery vessel without utilizing a combination of overfill devices and/or procedures, submitted in writing to the APCO, that is at least as effective in preventing overfill spillage as the system in Rule 71.3.B.2.b.1. Permittee has submitted an alternative overfill protection system and shall comply with Rule 71.3.B.2.b in the following manner:

In order to meet primary overfill protection requirements, the applicable loading racks shall be equipped with meters that automatically shut off when the preset volume in gallons is loaded. This preset gallon amount is based on the maximum

weight of ROC liquid that can be legally loaded into the delivery vessel. The maximum weight of liquid that can be loaded shall be determined by first weighing the delivery vessel prior to loading, then subtracting its weight from the total legal weight limit, and then dividing the maximum weight by the liquid density (weight per gallon) to get this amount in gallons.

In order to meet secondary overfill protection requirements, the operator shall set the meter initially to a volume in gallons less than that which would indicate a maximum load, and then the operator shall visually check the truck tank level after the meter shuts off the liquid transfer process. The driver shall then determine how much more liquid, if any, can be loaded. The preset fill meter shall also be used for any additional liquid loading.

As an additional precaution, the maximum weight of liquid that can be legally loaded in the delivery vessel shall still allow for additional volume to load more liquid before an overfill condition would occur. This additional volume can equate up to 3500 gallons or more, depending on the type of liquid and delivery vessel being loaded.

3. Pursuant to Rule 71.3.B.2.c, no person shall transfer ROC liquids into any ROC liquid delivery vessel without utilizing either a block and bleed valve system or other connectors with equivalent spill prevention characteristics.
4. Pursuant to Rule 71.3.B.3, any loading operation equipment, vapor recovery system, or other equipment required by Rule 71.3 shall not leak. The vapor recovery system shall be operated and maintained so that it does not cause the pressure in any delivery vessel to exceed 18 inches water gauge or the vacuum to exceed 6 inches water gauge.
5. Pursuant to Rule 71.3.C.1, no person shall transfer ROC liquids into a delivery vessel using loading equipment having a vapor recovery system unless the delivery vessel is leak free and is permanently equipped with:
 - a. A properly installed vapor recovery system that is compatible with the loading facility.
 - b. A pressure-vacuum relief device for each compartment that is set at 90 percent of the maximum, safe pressure and vacuum ratings of the vessel.
 - c. A secondary overfill protection system compatible with the loading operation APCO-approved secondary overfill protection system.
 - d. A loading connector/adaptor that is compatible with those required at the loading facility.

6. Pursuant to Rule 71.3.C.2, no person shall fill an ROC liquid delivery vessel unless the vapor recovery system is properly operating, properly maintained, does not leak, and all hatches are closed during transfer operations.
7. Pursuant to Rule 71.3.D.1, permittee shall annually monitor one complete loading operation for leaks and for proper operation of the loading equipment and delivery vessel vapor recovery and overfill protection systems. In order to detect leaks during the annual operator inspection, the permittee shall utilize an appropriate analyzer calibrated with methane or the alternative screening procedure in EPA Reference Method 21, as detailed in Rule 71.3.G.3.
8. Pursuant to Rule 71.3.D.2, permittee shall notify the District Enforcement Section of the following problems no later than 72 hours after the annual inspection required by Rule 71.3.D.1:
 - a. If any leaks were detected,
 - b. If the vapor recovery system, including any flare or incinerator, was not operating properly,
 - c. If any hatches were opened during the filling operation,
 - d. If the overfill prevention systems malfunctioned, or
 - e. If any spillage of ROC liquid occurred.
9. Pursuant to Rule 71.3.D.3, any leak detected shall be repaired to a leak free state and any vapor recovery system or overfill prevention system found malfunctioning shall be restored to a properly operating condition. These repairs shall be done as soon as practicable but no later than 5 calendar days from the detection date.
10. Pursuant to Rule 71.3.F.1, the operator of any loading equipment equipped with a bottom-loaded vapor recovery system shall maintain a record of the inspection required by Rule 71.3.D.1 and submit this record to the District upon request. These records shall, at a minimum, include the following:
 - a. Date of inspection and operator's initials.
 - b. Name and location of loading equipment and amount of ROC liquid transferred.
 - c. Description of any leak or malfunction of the vapor recovery or overfill prevention systems.
 - d. Date component was repaired and type of repair, if applicable.
 - e. Whether or not delivery vessels hatches are closed during filling and if any spillage occurred.
 - f. Delivery vessel identification and name of delivery company.

**Ventura County Air Pollution Control District
Rule 71.3.E.1 Applicable Requirements
ROC Liquid Loading Facilities
Low Vapor Pressure Exemption**

**Rule 71.3, "Transfer of Reactive Organic Compound Liquids"
Adopted 6/16/92, Federally-Enforceable**

Applicability:

This attachment applies to ROC liquid loading facilities that are exempt from Rule 71.3 requirements, pursuant to the exemption of Rule 71.3.E.1. The exemption states that the provisions of this rule shall not apply to any equipment that transfers an ROC liquid with a modified Reid vapor pressure of less than 0.5 psia. This attachment does not apply to the transfer of gasoline, or to the transfer of ROC liquids via pipeline.

A loading facility is defined as any aggregation or combination of organic liquid loading equipment which is located so that all the organic liquid loading outlets for such aggregation or combination of loading equipment can be encompassed within any circle of 300 feet in diameter.

Conditions:

1. Pursuant to Rule 71.3.E.1, the loading facility shall not be used to transfer an ROC liquid with a modified Reid vapor pressure of greater than or equal to 0.5 psia.
2. Permittee shall annually determine the liquid vapor pressure of all products at the loading facility in order to certify that the modified Reid vapor pressure is less than 0.5 psia. Records of the vapor pressure determinations shall be maintained at the facility and submitted to the District with the annual compliance certification.
3. Pursuant to Rule 71.3.G.1 the method for determining the vapor pressure shall be as follows:
 - a. For petroleum products, the modified Reid vapor pressure shall be measured at the product transfer temperature using ASTM Method No. D-323-82 Volume 5.01, Section 5.
 - b. For an organic liquid, if the liquid is listed in Attachment 1 of Rule 71.2, and if the transfer temperature of the liquid does not exceed the maximum temperature listed corresponding to 0.5 psia, then it shall be deemed exempt from Rule 71.3 requirements.

**Ventura County Air Pollution Control District
Rule 74.9.D.3 Applicable Requirements
Emergency Standby Stationary Internal Combustion Engines
Operated During Either an Emergency or Maintenance Operation**

Rule 74.9, "Stationary Internal Combustion Engines"

Adopted 11/08/05, Federally-Enforceable

Applicability:

This attachment applies to emergency standby stationary internal combustion engines rated at 50 or more horsepower, not subject to the provisions of APCD Rule 74.16, "Oilfield Drilling Operations," and operated during an emergency or maintenance operation. Maintenance operation is limited to 50 hours per calendar year. Pursuant to Rule 74.9.D.3, emergency standby stationary internal combustion engines operated during an emergency or during maintenance operation of no more than 50 hours per calendar year are exempt from all provisions of Rule 74.9.

As detailed in Rule 74.9.I.2 an emergency standby engine is defined as an internal combustion engine used only when normal power line or natural gas service fails, or for the emergency pumping of water for either fire protection or flood relief. An emergency standby engine may not be operated to supplement a primary power source when the load capacity or rating of the primary power source has been either reached or exceeded.

Conditions:

1. Pursuant to Section D.3 of Rule 74.9, an applicable emergency standby stationary internal combustion engine shall only be operated during an emergency or during maintenance operation of not more than 50 hours per calendar year.

Pursuant to Section I.5 of Rule 74.9, a maintenance operation is defined as the use of an emergency standby engine and fuel system during testing, repair and routine maintenance to verify its readiness for emergency standby use.

2. Pursuant to Section D.3 of Rule 74.9, each emergency standby engine shall be equipped with an operating, non-resettable, elapsed hour meter.
3. Pursuant to Section F.1 of Rule 74.9, the Annual Compliance Certification shall include the following records for each emergency standby engine: Engine manufacturer, model number, operator identification number, and location.

4. Pursuant to Section F.2 of Rule 74.9, the annual engine hours of maintenance operation shall be reported annually. A report shall be provided to the District after every calendar year by February 15.

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Ventura County Air Pollution Control District
Rule 74.15.B.1 Applicable Requirements
Boilers, Heater Treaters, Steam Generators, and Process Heaters
NO_x and CO Emission Limits
Annual Heat Input \geq 9,000 MMBTU

Rule 74.15, "Boilers, Steam Generators, and Process Heaters"
Adopted 11/08/94, Federally-Enforceable

Applicability:

This attachment applies to boilers, heater treaters, steam generators and process heaters with a maximum heat input rating of greater than or equal to 5 MMBTU/Hr that have operated with an annual heat input rate of greater than or equal to 9,000 MMBTU during any twelve (12) calendar month rolling period. This attachment also applies to any unit operated with an annual heat input rate of less than 9,000 MMBTU that is equipped with low NO_x burners or other such equipment to comply with the NO_x and CO requirements of Rule 74.15.B.1. A heat input of 9,000 MMBTU is equivalent to 90,000 therms and equivalent to 8.57 million cubic feet of natural gas at a higher heating value of 1,050 BTU/cf.

A boiler, steam generator or process heater is any external combustion equipment fired with liquid and/or gaseous fuel. A boiler or a steam generator is further defined as equipment used to produce steam or to heat water. Boiler or steam generator does not include any unfired waste heat recovery boiler that is used to recover sensible heat from the exhaust of any combustion equipment. A process heater is further defined as equipment that transfers heat from combustion gases to water or process streams. Process heater does not include any kiln or oven used for drying, baking, cooking, calcinating or vitrifying, or any fuel-fired degreasing or metal finishing equipment. Annual heat input is defined as the actual amount of heat released by fuels burned in a unit during a twelve (12) calendar month rolling period, based on the higher heating value of the fuel. The annual heat input shall be calculated as the sum of the previous 12 monthly fuel use rates multiplied by the higher heating value of the fuel.

Conditions:

1. Pursuant to Rule 74.15.B.1, emissions from an applicable emission unit shall not exceed the following limits:
 - a. Oxides of Nitrogen (NO_x expressed as NO₂): 40 ppmvd
 - b. Carbon Monoxide (CO): 400 ppmvd

These limits shall be referenced at three (3) percent volume stack gas oxygen on a dry basis averaged over 15 consecutive minutes. Compliance with this condition shall be verified every 24 months by source testing.

2. Pursuant to Rule 74.15.B.1, an applicable emission unit shall be source tested not less than once every 24 months (biennially) utilizing the following methods as detailed in Rule 74.15.E:

- | | | |
|----|------------------|----------------|
| a. | NOx | ARB Method 100 |
| b. | CO | ARB Method 100 |
| c. | Stack Gas Oxygen | ARB Method 100 |

Pursuant to Rule 74.15.E.2, emission tests shall be conducted on units in "as-found" operating condition. However, no emission test for Rule 74.15 shall be conducted during start-up, shutdown or under breakdown conditions. Prior to conducting a biennial emissions test, permittee shall notify the District Compliance Division. Written notification, and a source test protocol subject to District approval, shall be received no less than 15 calendar days prior to the test. The emissions test report and results shall be submitted to the District Compliance Division within 45 days after the test.

3. Pursuant to Rule 74.15.C.2, the emission limits of Rule 74.15.B.1 shall not apply to any unit operated on alternate fuel under the following conditions:

- a. Alternate fuel is required due to the curtailment of natural gas service to the individual unit by the natural gas supplier. Alternate fuel use in this case shall not exceed the period of natural gas curtailment.
- b. Alternate fuel use is required to maintain the alternate fuel system. Alternate fuel use in this case shall not exceed 50 hours per year.

4. Pursuant to Rule 74.15.C.4, the emission limits of Rule 74.15.B.1 shall not apply during the cold startup of an applicable unit. For units with a rated heat input capacity of equal to, or greater than, one hundred (100) million BTUs per hour, the duration of this exemption shall not exceed three (3) hours. For units with a rated heat input capacity of less than one hundred (100) million BTUs per hour, the duration of this exemption shall not exceed one (1) hour.

5. Permittee shall record and maintain the following information:

- a. Daily records of alternate fuel consumption as required by Rule 74.15.D.3. Each record shall include the type of fuel, the quantity of fuel, and the duration of the occurrence; and
- b. The biennial source test report.

This information shall be submitted to the District upon request.

6. If the emission unit is equipped with an external flue gas recirculation (FGR) system for the control of nitrogen oxides, permittee shall also comply with the FGR monitoring and recordkeeping requirements in the Permit Specific Conditions (Attachments) presented in Section No. 7 of this permit.

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Ventura County Air Pollution Control District
Rule 74.15.1.B.1 Applicable Requirements
Boilers, Heater Treaters, Steam Generators, and Process Heaters
Heat Inputs \geq 1 MMBTU/hr and $<$ 5 MMBTU/hr
NO_x and CO Emission Limits
Annual Heat Input \geq 1,800 MMBTU

Rule 74.15.1, "Boilers, Steam Generators, and Process Heaters"
Adopted 06/23/15, Federally-Enforceable

Applicability:

This attachment applies to boilers, heater treaters, steam generators and process heaters with a rated heat input capacity equal to or greater than 1 MMBTU/Hr and less than 5 MMBTU/Hr that have operated with an annual heat input rate of greater than or equal to 1,800 MMBTU during any twelve (12) calendar month rolling period. This attachment also applies to any unit operated with an annual heat input rate of less than 1,800 MMBTU that is equipped with low NO_x burners or other such equipment to comply with the NO_x and CO requirements of Rule 74.15.1.B.1. A heat input of 1,800 MMBTU is equivalent to 18,000 therms and equivalent to 1.71 million cubic feet of natural gas at a higher heating value of 1,050 BTU/cf. This attachment specifically applies to units installed prior to January 1, 2013 for units with a heat input capacity of equal to or greater than 1 MMBTU/hr and less than or equal to 2 MMBTU/hr; and installed prior to January 1, 2016 for units with a heat input capacity of greater than 2 MMBTU/hr and less than 5 MMBTU/hr. These units have a Rule 74.15.1.B.1 limit of 30 ppmvd NO_x at 3% oxygen.

A boiler, steam generator or process heater is any external combustion equipment fired with liquid and/or gaseous fuel. A boiler or a steam generator is further defined as equipment used to produce steam or to heat water. Boiler or steam generator does not include any unfired waste heat recovery boiler that is used to recover sensible heat from the exhaust of any combustion equipment. A process heater is further defined as equipment that transfers heat from combustion gases to water or process streams. A process heater does not include any of the following combustion sources: kiln, oven, open heated tank, dehydrator, dryer, crematory, incinerator, calciner, cooker, roaster, furnace; unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion equipment; fuel-fired degreasing or metal finishing equipment including parts washers and metal heat treating or metal furnaces; afterburner, vapor incinerator, thermal or catalytic oxidizers used as an emission control device; glass melting furnace; tenter frame, fabric, or carpet dryer. Annual heat input is defined as the actual amount of heat released by fuels burned in a unit during a twelve (12) calendar month rolling period, based on the higher heating value of the fuel. The annual heat input shall be calculated as the sum of the previous 12 monthly fuel use rates multiplied by the higher heating value of the fuel.

Conditions:

1. Pursuant to Rule 74.15.1.B.1, emissions from an applicable emission unit shall not exceed the following limits:
 - a. Oxides of Nitrogen (NO_x expressed as NO₂): 30 ppmvd
 - b. Carbon Monoxide (CO): 400 ppmvd

These limits shall be referenced at three (3) percent volume stack gas oxygen on a dry basis averaged over 15 consecutive minutes. Compliance with this condition shall be verified by source testing as detailed below.

2. Source testing:
 - a. Pursuant to Rule 74.15.1.B.4.a, units with a rated heat input capacity greater than 2 MMBTU/hr shall be source tested for compliance not less than once every 24 months.
 - b. Pursuant to Rule 74.15.1.B.4.c, units with a rated heat input capacity of less than or equal to 2 MMBTU/hr shall be source tested for compliance not less than once every 48 months.
3. Required source testing shall utilize the following methods as detailed in Rule 74.15.1.E:
 - a. NO_x ARB Method 100
 - b. CO ARB Method 100
 - c. Stack Gas Oxygen ARB Method 100

Pursuant to Rule 74.15.1.E.2, emission tests shall be conducted on units in "As-found" operating condition. Prior to conducting a required emissions test, permittee shall notify the District Compliance Division. Written notification shall be received no less than 15 calendar days prior to the test. The emissions test report and results shall be submitted to the District Compliance Division within 45 days after the test.

4. Pursuant to Rule 74.15.1.B.4.d, an annual screening analysis of NO_x and CO emissions shall be performed on the unit. The screening analysis is not required if the source testing required by Rule 74.15.1.B.4.a or 74.15.1.B.4.c (Condition No. 2) is required that year. The permittee shall notify the VCAPCD Compliance Division by telephone, fax, or email 24 hours prior to any screening analysis. Pursuant to Rule 74.15.1.D.3, the permittee shall submit a report to the District Compliance Division within 45 days after each screening analysis.
5. Pursuant to Rule 74.15.1.C.1, the emission limits of Rule 74.15.1.B.1 shall not apply to any unit operated on alternate fuel under the following conditions:

- a. Alternate fuel is required due to curtailment of natural gas service to the individual unit by the natural gas supplier. Alternate fuel use in this case shall not exceed the period of natural gas curtailment.
 - b. Alternate fuel use is required to maintain the alternate fuel system. Alternate fuel use in this case shall not exceed 50 hours per year.
6. The permittee shall record and maintain the following information:
- a. Daily records of alternate fuel consumption as required by Rule 74.15.1.D.4. Each record shall include the type of fuel, the quantity of fuel, and the duration of the occurrence; and
 - b. Required source test reports.
 - c. Annual screening analysis logs and reports as required by Rule 74.15.1.D.3.

This information shall be submitted to the District upon request.

Ventura County Air Pollution Control District
Rule 74.15.1 Applicable Requirements
Boilers, Heater Treaters, Steam Generators, and Process Heaters
Equipment Currently Shut Down and Not Operating

Rule 74.15.1, "Boilers, Steam Generators, and Process Heaters"
Adopted 06/23/15, Federally-Enforceable

Applicability:

This attachment applies to boilers, heater treaters, steam generators and process heaters with a rated heat capacity equal to or greater than 1 MMBTU/Hr and less than 5 MMBTU/Hr that are currently shut down and not operating.

A boiler, steam generator or process heater is any external combustion equipment fired with liquid and/or gaseous fuel. A boiler or a steam generator is further defined as equipment used to produce steam or to heat water. Boiler or steam generator does not include any unfired waste heat recovery boiler that is used to recover sensible heat from the exhaust of any combustion equipment. A process heater is further defined as equipment that transfers heat from combustion gases to water or process streams. A process heater does not include any of the following combustion sources: kiln, oven, open heated tank, dehydrator, dryer, crematory, incinerator, calciner, cooker, roaster, furnace; unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion equipment; fuel-fired degreasing or metal finishing equipment including parts washers and metal heat treating or metal furnaces; afterburner, vapor incinerator, thermal or catalytic oxidizers used as an emission control device; glass melting furnace; tenter frame, fabric, or carpet dryer. Annual heat input is defined as the actual amount of heat released by fuels burned in a unit during a twelve (12) calendar month rolling period, based on the higher heating value of the fuel. The annual heat input shall be calculated as the sum of the previous 12 monthly fuel use rates multiplied by the higher heating value of the fuel.

Conditions:

1. Prior to operating an applicable emission unit, permittee shall:
 - a. Notify the District Compliance Division; and
 - b. Install a dedicated fuel meter pursuant to Rule 74.15.1.D.1. The meter shall be accurate to ± 1 percent, as certified by the manufacturer in writing.

2. Any applicable emission unit operated with an annual heat input rate of equal to or greater than 300 MMBTU and less than 1800 MMBTU shall comply with the tuning requirements of Rule 74.15.1.B.3.

3. Prior to operating any applicable emission unit with an annual heat input rate of equal to or greater than 1800 MMBTU, the permittee shall demonstrate by source testing, using ARB Method 100 as detailed in Rule 74.15.1.E, that the unit complies with the required nitrogen oxide (NO_x) and carbon monoxide (CO) limits of either Rule 74.15.1.B.1 or Rule 74.15.1.B.2, as applicable. If the unit requires physical modifications in order to meet the emission limits, permittee shall apply for and receive an Authority to Construct and Permit to Operate for the modification.
5. The permittee shall annually certify that the subject equipment is shut down and not operating.
6. Upon operating an applicable emission unit, totalizing fuel meter records shall be compiled monthly into a rolling twelve (12) calendar month report. These records shall be submitted to the District upon request.

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**Ventura County Air Pollution Control District
California Airborne Toxic Control Measure For
Stationary Compression Ignition Engines
In-Use Emergency Fire Pump Assembly Engines**

**Section 93115, Title 17, California Code of Regulations, Airborne Toxic Control Measure
for Stationary Compression Ignition (CI) Engines
Effective 05/19/11**

The District is required to implement and enforce the state ATCM. The ATCM is not federally-enforceable.

Applicability:

This attachment describes the requirements of California Airborne Toxic Control Measure (ATCM) For Stationary Compression Ignition (CI) Engines that apply to in-use stationary diesel-fueled CI engines that drive fire pump assemblies. Section 93115.3(n) of the ATCM exempts such engines from the emission standards for stationary emergency standby diesel-fueled CI engines as listed in Section 93115.6(b)(3) of the ATCM. The exempt engines must only be operated the number of hours necessary to comply the testing requirements of National Fire Protection Association (NFPA) 25 – “Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems,” 2002 edition. An “in-use” engine is an engine that was installed at a facility prior to January 1, 2005. Pursuant to Section 93115.4(a)(8) CARB Diesel Fuel means any diesel fuel that meets the specifications of vehicular diesel fuel, as defined in title 13, CCR, sections 2281 and 2282. The Verification Procedure is defined in Section 93115.4(a)(78).

Conditions:

1. Pursuant to subsection 93115.5(a), as of January 1, 2006, the permittee shall not fuel the engine with any fuel unless the fuel is one of the following:
 - a. CARB Diesel Fuel, or
 - b. An alternative diesel fuel that is:
 - 1) biodiesel;
 - 2) a biodiesel blend that does not meet the definition of CARB diesel Fuel
 - 3) a Fischer-Tropsch fuel; or
 - 4) an emulsion of water in diesel fuel; or
 - c. any alternative diesel fuel that is not identified in section 93115.5(a)(2) and meets the requirements of the Verification Procedure; or
 - d. an alternative fuel; or
 - e. CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure; or

- f. any combination of the above.
- 2. Pursuant to subsection 93115.10(f)(1)(E), the permittee shall keep a monthly log of each engine's hours of operation to comply with the requirements of NFPA 25.
- 3. Pursuant to subsection 93115.5(f)(1)(H), the permittee shall document fuel use in the engines. For engines operated exclusively on CARB Diesel Fuel, the owner or operator shall document the use of CARB Diesel Fuel through the retention of fuel purchase records indicating that the only fuel purchased for supply to an emergency standby engine was CARB Diesel Fuel; or for engines operated on any fuel other than CARB Diesel Fuel, the fuel records demonstrating that the only fuel purchased and added to an emergency standby engine or engines, or to any fuel tank directly attached to an emergency standby engine or engines, meets the requirements of section 93115.5(b).

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**Ventura County Air Pollution Control District
National Emission Standards for Hazardous Air Pollutants
For Stationary Reciprocating Internal Combustion Engines
Existing Emergency Diesel Engines at an Area Source of HAPs**

**40 CFR Part 63, Subpart ZZZZ, “National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines” (RICE MACT)
RICE MACT Last Revised 01/30/13**

Applicability:

The NESHAP for Stationary Reciprocating Internal Combustion Engines is applicable to all stationary reciprocating internal combustion engines (RICE) at both major and area sources of hazardous air pollutants. The NESHAP is applicable to both compression ignition (CI – diesel) engines and spark ignition (SI – natural gas, landfill gas, gasoline, propane, etc.) engines. The specific conditions below are for existing emergency diesel engines at an area source. An engine is defined as “existing” if it was constructed before June 12, 2006. A stationary source is defined as an “area source” if it is not a major source of HAP (Hazardous Air Pollutants) emissions; meaning the stationary source does not emit or have the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

Pursuant to Section 63.6640(f) and Section 63.6675, an “emergency engine” is any engine whose operation is limited to emergency situations and required testing and maintenance. An emergency can be the loss of grid power or the stationary source’s own power production. An emergency engine may also participate in an emergency demand response program under limited circumstances. Stationary RICE used for peak shaving or as part of a financial arrangement to supply power into the grid, or as a part of a non-emergency demand response program are not considered emergency stationary RICE.

For more up-to-date information regarding RICE NESHAP standards, please refer to the following link: <https://www.epa.gov/stationary-engines/national-emission-standards-hazardous-air-pollutants-reciprocating-internal-0>

Conditions:

1. Pursuant to Section 63.6603(a), Table 2d, the permittee shall comply with the following operating requirements:
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first. An oil analysis program as described in Section 63.6625(i) can be utilized in order to extend the specified oil change requirement.
 - b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes

first, and replace as necessary.

- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Pursuant to Table 2d, if an emergency RICE is operating during an emergency and it is not possible to perform the above maintenance or if performing the maintenance would otherwise pose an unacceptable risk under federal, state, or local law, the maintenance can be delayed and should be performed as soon as practicable after the emergency has ended or the unacceptable risk has abated. All such maintenance delays shall be reported to the APCD Compliance Division.

2. Pursuant to Section 63.6625(e) and 63.6640(a), Table 6, the permittee shall operate and maintain the stationary RICE according to the manufacturer's emission-related written instructions or develop your own plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
3. Pursuant to Section 63.6625(f), the RICE shall be equipped with a non-resettable hour meter.
4. Pursuant to Section 63.6625(h), the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
5. Pursuant to Sections 63.6640(f) and 63.6675, the permittee shall operate the emergency RICE in compliance with the following requirements:
 - a. There is no time limit on the use of emergency stationary RICE in emergency situations. An emergency can be the loss of grid power or the stationary source's own power production.
 - b. The use of the engine is limited to 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, 5% or greater voltage or frequency deviation situations, and up to 50 hours per year for non-emergency situations as detailed in Section 63.6640(f)(4). The 50 hours are to be counted in the 100 hours limit.
 - c. The emergency stationary RICE may be operated up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-

emergency demand response to generate income for a facility. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial agreement with another entity if all of the requirements of Section 63.6640(f)(4)(ii)(A–E) are met. The 50 hours per year limit is to be counted towards the 100 hours per year limit.

6. Pursuant to Sections 63.6655(e) and 63.6655(f), the permittee shall maintain the following records:
 - a. Records of maintenance conducted on the stationary emergency RICE.
 - b. Records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation.
7. If the engine is contractually obligated to be available for more than 15 hours per year for emergency demand response, 5% or greater voltage or frequency deviation situations, or for non-emergency situations as detailed in Section 63.6640(f)(4)(ii) the engine must use a diesel fuel that meets the requirements in 40 CFR 80.510(b) for non-road diesel fuel. This fuel is commonly known as ultra low sulfur diesel or ULSD. Any diesel fuel purchased (or otherwise obtained) prior to January 1, 2015 may be used until depleted. (Section 63.6604(b))
8. If the engine is contractually obligated to be available for more than 15 hours per year for emergency demand response, 5% or greater voltage or frequency deviation situations, or for non-emergency situations as detailed in Section 63.6640(f)(4)(ii) the permittee is required to compile and submit a report as required by Section 63.6650(h). This report includes, but is not limited to, location information, engine information, hours of operation, and fuel requirement deviations. The first annual report must cover calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. As required by Section 63.6650(h)(3), the annual report must be submitted electronically via EPA's Central Data Exchange (CDX). (Section 63.6650(h))
9. On an annual basis, the permittee shall certify that all engines at this stationary source are operating in compliance with 40 CFR Part 63, Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Engines" (RICE MACT).

**Ventura County Air Pollution Control District
National Emission Standards for Hazardous Air Pollutants
For Stationary Reciprocating Internal Combustion Engines
Existing Emergency Spark Ignited Engines**

40 CFR Part 63, Subpart ZZZZ, “National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines” (RICE MACT)

Applicability:

The NESHAP for Stationary Reciprocating Internal Combustion Engines is applicable to all stationary reciprocating internal combustion engines (RICE) at both major and area sources of hazardous air pollutants. The NESHAP is applicable to both compression ignition (CI – diesel) engines and spark ignition (SI – natural gas, landfill gas, gasoline, propane, etc.) engines. The specific conditions below are for existing emergency spark ignited engines at an area source. An engine is defined as “existing” if it was constructed before June 12, 2006. A stationary source is defined as an “area source” if it is not a major source of HAP (Hazardous Air Pollutants) emissions; meaning the stationary source does not emit or have the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

Pursuant to Section 63.6640(f) and Section 63.6675, an “emergency engine” is any engine whose operation is limited to emergency situations and required testing and maintenance. An emergency can be the loss of grid power or the stationary source’s own power production. An emergency engine may also participate in an emergency demand response program under limited circumstances. Stationary RICE used for peak shaving or as part of a financial arrangement to supply power into the grid, or as a part of a non-emergency demand response program are not considered emergency stationary RICE.

Pursuant to Section 63.6595(a)(1), the permittee must comply with the applicable operating requirements on and after May 3, 2013.

Conditions:

1. Pursuant to Section 63.6603(a), Table 2d, the permittee shall comply with the following operating requirements:
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first. An oil analysis program as described in Section 63.6625(i) can be utilized in order to extend the specified oil change requirement.
 - b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Pursuant to Table 2d, if an emergency RICE is operating during an emergency and it is not possible to perform the above maintenance or if performing the maintenance would otherwise pose an unacceptable risk under federal, state, or local law, the maintenance can be delayed and should be performed as soon as practicable after the emergency has ended or the unacceptable risk has abated. All such maintenance delays shall be reported to the APCD Compliance Division.

2. Pursuant to Section 63.6625(e) and 63.6640(a), Table 6, the permittee shall operate and maintain the stationary RICE according to the manufacturer's emission-related written instructions or develop your own plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
3. Pursuant to Section 63.6625(f), the RICE shall be equipped with a non-resettable hour meter.
4. Pursuant to Section 63.6625(h), the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
5. Pursuant to Sections 63.6640(f) and 63.6675, the permittee shall operate the emergency RICE in compliance with the following requirements:
 - a. There is no time limit on the use of emergency stationary RICE in emergency situations. An emergency can be the loss of grid power or the stationary source's own power production.
 - b. The use of the engine is limited to 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, 5% or greater voltage or frequency deviation situations, and up to 50 hours per year for non-emergency situations as detailed in Section 63.6640(f)(4). The 50 hours are to be counted in the 100 hours limit.
 - c. The emergency stationary RICE may be operated up to 50 hours per calendar year for peak shaving as part of a financial agreement to supply power into the grid, or as part of a non-emergency demand response program, until May 3, 2014. After May 3, 2014, the 50 hours per year for non-emergency situations can be used to supply power as part of a financial agreement if all of the requirements of Section

63.6640(f)(4)(ii) are met. The 50 hours per year limit is to be counted towards the 100 hours per year limit.

6. Pursuant to Sections 63.6655(e) and 63.6655(f), the permittee shall maintain the following records:
 - a. Records of maintenance conducted on the stationary emergency RICE.
 - b. Records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation.
7. If the engine site rating exceeds 100 brake HP and operates or is contractually obligated to be available for more than 15 hours per year for purposes specified in Section 63.6640(f)(2)(ii) and (iii) or that operates for the purposes specified in Section 63.6640(f)(4)(ii) the permittee is required to compile and submit a report as required by Section 63.6650(h). The annual report must be submitted no later than March 31 of each year. (Section 63.6650(h))
8. On an annual basis, the permittee shall certify that all engines at this stationary source are operating in compliance with 40 CFR Part 63, Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Engines" (RICE MACT).

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8. PERMIT SPECIFIC CONDITIONS (ATTACHMENTS)

As discussed in Section No. 2, “Permitted Equipment and Applicable Requirements Table”, the emissions units at this stationary source listed in the table have requirements that are specifically applicable to them. The applicable requirements are primarily based on Rule 26, “New Source Review” requirements (e.g., BACT and offset requirements), or Rule 29, “Conditions on Permits” requirements (e.g., throughput recordkeeping requirements, specific requirements that limit emissions, etc.). These requirements are in addition to the specific applicable requirements listed in Section No. 7.

In this section of the permit, the permit conditions that are associated with each specific applicable requirement are listed in an individual attachment. The attachment is identified with the label “Attachment PO (Title V Permit No.) PC#” in the lower left corner. Each attachment has an applicability section that describes how and why this attachment applies to the specific emissions unit. The attachment may apply to one or more of the emissions units listed in the Permitted Equipment and Applicable Requirements Table in Section No. 2.

**Ventura County Air Pollution Control District
Additional Permit Requirements
Permit No. 00012**

Rule 26, "New Source Review"

Rule 29, "Conditions on Permits"

Conditions applied pursuant to Rule 26 are federally enforceable and conditions applied pursuant to Rule 29 are District enforceable only.

Applicability:

This attachment applies to this stationary source. These requirements are in addition to any other specific or general requirements referenced in this permit.

Conditions:

1. In order to comply with the throughput and consumption limits of this permit, the permittee shall maintain monthly records of throughput and consumption as detailed in Section No. 3, "Permitted Throughput and Consumption Limit Table", of this permit. The monthly records shall be summed for the previous 12 months. Throughput or consumption totals for any of these 12 calendar month rolling periods in excess of the specified limit shall be considered a violation of this permit. This is a general throughput and consumption recordkeeping condition and applies unless another throughput and consumption recordkeeping condition appears in this section of the permit. (Rules 26 and 29)
2. The permitted emissions authorized by this permit are based in part on the fugitive emissions from 70 oil wells. An Authority to Construct is required to be obtained from the District prior to drilling a new oil well. Emission offsets must also be provided with the submittal of any application to increase the number of wells beyond 70 wells. (Rule 29)
3. The following wells shall be shall be free flowing, operated on gas lift, or operated with electric motor driven artificial lift equipment:

Chase C8, Chase E9, Chase D11, Chase F12, TransAmerica B5, TransAmerica C2, TransAmerica D10

This condition is applied as Best Available Control Technology. (Rule 26)
4. Pursuant to Rule 23.F.7, the use of solvents, in addition to the use of coatings, adhesives, lubricants, and sealants, for facility and building maintenance and repair is exempt from

permit. However, the use of such materials by contractors for the maintenance and repair of process and industrial equipment is not exempt from permit pursuant to Rule 23.F.7, unless the material is exempted under another specific section of Rule 23. Pursuant to Rule 23.F.6, the use of non-refillable aerosol cans is exempt from permit. Pursuant to Rule 23.F.10, the use of cleaning agents certified by the SCAQMD as Clean Air Solvents (Rule 23.F.10.a) and the use of cleaning agents that contain no more than 25 grams per liter of ROC as used or applied, and no more than 5 percent by weight combined of methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, and chloroform (Rule 23.F.10.b), is also exempt from permit. This permit does not limit the usage of acetone. Acetone is exempt from permit and record keeping requirements, as it is not defined as a reactive organic compound.

In order to substantiate the solvent use exemptions listed above, the permittee shall maintain a list of all exempt solvents used at the stationary source and a reference to the specific permit exemption status.

(Rule 29)

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**Ventura County Air Pollution Control District
Additional Permit Requirements
Nitrite Solution Vessels**

**Rule 29, "Conditions on Permits"
Adopted 03/14/06, District Enforceable Only**

**Rule 64, "Sulfur Content of Fuels"
Adopted 04/13/99, Federally-Enforceable**

Applicability:

This attachment applies to the nitrite solution vessels or nitrite solution buffer vessels located at this facility. These vessels are used to sweeten, or remove hydrogen sulfide from, gas produced from wells at this facility. These requirements are in addition to any other specific or general requirements referenced in this permit.

Conditions:

1. All produced gas and casing gas shall be processed through the nitrite solution produced gas sweetening system. (Rule 64)
2. The produced gas and casing gas shall not be burned as fuel in the boilers, steam generators or process heaters if the gas contains sulfur compounds, calculated as hydrogen sulfide at standard conditions, in excess of 236 ppmv, or the equivalent 15 grains per 100 cubic feet. (Rule 29)
3. On a weekly basis, permittee shall test the hydrogen sulfide content of the gases downstream of the nitrite solution vessels or nitrite solution buffer vessels located throughout the facility. The tests shall be performed using detector tubes that measure hydrogen sulfide. Permittee shall maintain this test information and make it available to the District upon request. (Rule 64)
4. Permittee shall analyze the sulfur content of this fuel gas on an annual basis using South Coast AQMD Method 307-94 - Determination of Sulfur in a Gaseous Matrix. This annual fuel gas analysis shall satisfy the requirements of Permit Condition No. 2 above, as well as the requirements of Rule 64.B.1. Records of the test shall be maintained at the facility and the test results shall be provided to the District with the annual compliance certification. (Rule 64)

**Ventura County Air Pollution Control District
Additional Permit Requirements
20 MMBTU/Hr Erie City Boiler**

Rule 26, "New Source Review"

**Rule 74.15, "Boilers, Steam Generators, and Process Heaters"
Adopted 11/08/94, Federally-Enforceable**

Conditions applied pursuant to Rule 26 are federally enforceable.

Applicability:

This attachment applies to the 20 MMBTU/Hr Erie City boiler located at this facility. These requirements are in addition to any other specific or general requirements referenced in this permit.

Conditions:

1. The stack outlet concentrations of oxides of nitrogen (NO_x measured as NO₂) shall not exceed 36 parts per million by volume (ppmv) corrected to 3 percent oxygen. This is a requirement of Rule 26 as detailed in Authority to Construct No. 0012-110. (Rule 26)
2. Permittee shall operate the Erie City boiler at a flue gas recirculation (FGR) rate at or above a valve opening setting of 45%, and an excess oxygen rate between 0.5% and 3.0%. These operating parameters shall be monitored, measured, and recorded on a monthly basis. Any deviation from the minimum FGR valve position of 45% or any deviation from the excess oxygen rate range shall be considered a violation of this condition, unless the permittee can demonstrate compliance with the NO_x emission limits specified in Permit Condition No. 1 above by emission testing pursuant to Rule 74.15. (Rule 26 and Rule 74.15)
3. Permittee shall have the boiler emissions tested no less than once every 24 months and shall maintain the external flue gas recirculation system (FGR) according to the parameters specified in Permit Condition No. 2 above. Additional monitoring, recordkeeping, reporting, and test method requirements for this unit are included in Attachment 74.15N1 in Section No. 7 of this permit. (Rule 26 and Rule 74.15)

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**Ventura County Air Pollution Control District
Additional Permit Requirements
20 MMBTU/Hr Natco Crude Oil Process Heater**

Rule 26, "New Source Review"

**Rule 74.15, "Boilers, Steam Generators, and Process Heaters"
Adopted 11/08/94, Federally-Enforceable**

Conditions applied pursuant to Rule 26 are federally enforceable.

Applicability:

This attachment applies to the 20 MMBTU/Hr Natco crude oil process heater located at this facility. These requirements are in addition to any other specific or general requirements referenced in this permit.

Conditions:

1. The stack outlet concentrations of oxides of nitrogen (NO_x measured as NO₂) shall not exceed 34 parts per million by volume (ppmv) corrected to 3 percent oxygen. This is a requirement of Rule 26 as detailed in Authority to Construct No. 0012-110. (Rule 26)
2. Permittee shall operate the Natco crude oil process heater at a flue gas recirculation (FGR) rate at or above a valve opening setting of 50%, and an excess oxygen rate between 0.5% and 2.5%. These operating parameters shall be monitored, measured, and recorded on a monthly basis. Any deviation from the minimum FGR valve position of 50% or any deviation from the excess oxygen rate range shall be considered a violation of this condition, unless the permittee can demonstrate compliance with the NO_x emission limits specified in Permit Condition No. 1 above by emission testing pursuant to Rule 74.15. (Rule 26 and Rule 74.15)
3. Permittee shall have the heater emissions tested no less than once every 24 months and shall maintain the external flue gas recirculation system (FGR) according to the parameters specified in Permit Condition No. 2 above. Additional monitoring, recordkeeping, reporting, and test method requirements for this unit are included in Attachment 74.15N1 in Section No. 7 of this permit. (Rule 26 and Rule 74.15)

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**Ventura County Air Pollution Control District
Additional Permit Requirements
20 MMBTU/Hr Steam Generators
(Steam Generator Nos. 0, 1, 2, 4, and 5)**

**Rule 26, “New Source Review”
Federally-Enforceable**

**Rule 29, “Conditions on Permits”
District Enforceable Only**

**Rule 54, “Sulfur Compounds”
Adopted 01/14/14, Federally-Enforceable**

**Rule 64, “Sulfur Content of Fuels”
Adopted 04/13/99, Federally-Enforceable**

**Rule 74.15, “Boilers, Steam Generators, and Process Heaters”
Adopted 11/08/94, Federally-Enforceable**

Applicability:

This attachment applies to the five (5) 20 MMBTU/Hr steam generators in service (Nos. 0, 1, 2, 4, and 5) located at this facility. These requirements are in addition to any other specific or general requirements referenced in this permit.

Conditions:

1. Permittee may burn fuel oil in Steam Generator Nos. 4 and 5 at a maximum rate of 118.2 gallons per hour during periods of mandatory natural gas curtailment by the natural gas supplier. Prior to obtaining approval to burn fuel oil at a higher rate during curtailment, permittee must demonstrate through source testing that these steam generators can meet an oxides of nitrogen (NO_x measured as NO₂) emission limit of 160 parts per million by volume (ppmv) on a dry basis corrected to 3 percent oxygen while burning fuel oil. (Rule 26)

If the permittee desires to burn fuel oil during periods of time other than natural gas curtailment, compliance with the 40 ppmv NO_x and 400 ppmv CO limits of Rule 74.15.B.1 shall be demonstrated prior to such fuel oil burning. (Rule 74.15)

2. PCL Industrial Services, Inc. 20.0 MMBTU/hr Steam Generator (Unit No. 0) Emission Limitations:

- a. Oxides of nitrogen (NO_x measured as NO₂) emissions from the steam generator shall not exceed 5 ppmvd, corrected to 3% oxygen, when burning PUC natural gas.
- b. Oxides of nitrogen (NO_x measured as NO₂) emissions from the steam generator shall not exceed 6 ppmvd, corrected to 3% oxygen, when burning PUC natural gas mixed with produced gas.
- c. Carbon monoxide (CO) emissions from the steam generator shall not exceed 100 ppmvd, corrected to 3% oxygen.

The NO_x limitations are applied as BACT (Best Available Control Technology). The CO limit is applied pursuant to Rule 29, "Conditions On Permits". The NO_x and CO limits are more stringent than the Rule 74.15.B.1 emission limits. In order to demonstrate compliance with these emission limits, the permittee shall have the unit's emissions tested every 24 months. (Rules 26, 29, 74.15)

3. The PCL Industrial Services, Inc. steam generator (Unit No. 0) shall be fired on PUC natural gas or a mixture of PUC natural gas and produced gas that meets a hydrogen sulfide (H₂S) content limit of 20 ppmvd. This condition is applied as BACT (Best Available Control Technology) and Rule 54, "Sulfur Compounds", compliance.

All oilfield gas combustion shall comply with Rule 64, "Sulfur Content of Fuels". The sulfur content of the oilfield gas burned in the steam generator shall be monitored and recorded on an annual basis as required by Section D of Rule 64. The sulfur content of the oilfield gas shall be determined by SCAQMD Method 307-91.

4. The fuel to be burned during commercial operation of Steam Generator Nos. 1 and 2 shall be limited to utility natural gas only. Prior to obtaining approval to burn fuel oil during periods of mandatory natural gas curtailment by the natural gas supplier, permittee must demonstrate through source testing these steam generators can meet an oxides of nitrogen (NO_x measured as NO₂) emission limit of 160 parts per million by volume (ppmv) on a dry basis corrected to 3 percent oxygen while burning fuel oil. (Rule 26)

If the permittee desires to burn fuel oil during periods of time other than natural gas curtailment, compliance with the 40 ppmv NO_x and 400 ppmv CO limits of Rule 74.15.B.1 shall be demonstrated prior to such fuel oil burning. (Rule 74.15)

5. The fuel oil to be burned in Steam Generator Nos. 4 and 5 shall be limited to a sulfur content not to exceed 0.25%, by weight, and a nitrogen content not to exceed 0.25%, by weight. In order to comply with this condition, permittee shall maintain fuel records, or certification from the fuel supplier, documenting the sulfur content and nitrogen content of each fuel delivery. (Rule 29)

6. A totalizing fuel meter shall be installed and dedicated to each steam generator. The meter shall be accurate to \pm one percent and shall be maintained in proper operating condition. (Rule 29)
7. Permittee shall maintain the following flue gas recirculation (FGR) valve opening settings and excess oxygen trim rates:

| Steam Generator No. | Valve Opening Setting | Excess Oxygen Rates |
|---------------------|-----------------------|---------------------|
| 1 | 30 % | 0.5 - 2.5 % |
| 2 | 30 % | 0.5 - 2.5 % |
| 4 | 40 % | 0.5 - 2.5 % |
| 5 | 60 % | 0.5 - 2.5 % |

These operating parameters shall be monitored, measured, and recorded on a monthly basis. Any FGR valve setting less than the FGR valve position setting above, or any deviation from the excess oxygen rates above shall be considered a violation of this condition, unless the permittee can demonstrate compliance with 40 ppmv NO_x by emission testing pursuant to Rule 74.15. (Rule 26 and Rule 74.15)

8. Permittee shall have the steam generators' emissions tested no less than once every 24 months and shall maintain the external flue gas recirculation system (FGR) according to the parameters specified in Permit Condition No. 7 above. Additional monitoring, recordkeeping, reporting, and test method requirements for these units are included in Attachment 74.15N1 in Section No. 7 of this permit.

**Ventura County Air Pollution Control District
Additional Permit Requirements
Asphalt Loading Racks**

Rule 51, "Nuisance"

Adopted 04/13/04, District Enforceable Only

Applicability:

This attachment applies to the asphalt loading racks located at this facility. These requirements are in addition to any other specific or general requirements referenced in this permit.

Conditions:

1. Pursuant to Rule 51, permittee shall operate and maintain a vapor collection and scrubbing system at the asphalt loading racks during all asphalt transfer operations in order to reduce any nuisance created by odor. The vapor collection and filtration system shall minimize displaced vapors from being released into the atmosphere during loading operations by collecting the displaced ROC vapors from the delivery vessel, and passing these vapors through a water scrubber and filtration system prior to release to the atmosphere.
2. The permittee shall annually certify that the vapor collection and scrubbing system is operating properly.

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**Ventura County Air Pollution Control District
Additional Permit Requirements
Crude Oil and Gas Oil Loading Racks**

**Rule 71.3, "Transfer of Reactive Organic Compound Liquids"
Adopted 06/16/92, Federally-Enforceable**

Rule 26, "New Source Review"

Conditions applied pursuant to Rule 26 are federally enforceable.

Applicability:

This attachment applies to the crude oil loading racks located at the Transamerica Tank C-1 area, Texcon Tank C-2 and C-3 area, and the Main Facility Tank 2005-2006 area. This attachment also applies to gas oil loading rack at the Main Facility Tank 1501-1503 area. These requirements are in addition to any other specific or general requirements referenced in this permit.

Conditions:

1. Regardless of the applicability, requirements, or exemptions of Rule 71.3, permittee shall maintain a bottom-loaded vapor recovery system at the crude oil and gas oil loading racks during all transfer operations. The vapor recovery system shall prevent all displaced vapors during loading from being released into the atmosphere. The vapor recovery system shall be capable of collecting all ROC vapors; and shall have a vapor return system that routes all vapors to a continuously operating boiler firebox for incineration or to a gas pipeline recovery and distribution system. Additional monitoring, recordkeeping, reporting, and test method requirements for these units are included in Attachment 71.3N4 in Section No. 7 of this permit.

This is a requirement of Rule 26 as detailed in Application No. 0011-008 for Emission Reduction Credits as a result of adding vapor recovery to these crude oil and gas oil loading racks.

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**Ventura County Air Pollution Control District
Additional Permit Requirements
Out of Service Emissions Units**

Rule 29, “Conditions on Permits”

Conditions applied pursuant to Rule 29 are District enforceable only.

Applicability:

This attachment applies to any emissions units on permit at this facility that are currently designated as “Out of Service” in Tables 2, 3, and 4 of this permit.

Conditions:

1. Any tank designated as “Out of Service” in Tables 2, 3, and 4 of this permit is shut down, shall not be operated, and shall not contain any liquids.
2. Any combustion unit designated as “Out of Service” in Tables 2, 3, and 4 of this permit is shut down, shall not be operated, and shall not be connected to a fuel source.
3. For emissions units designated as “Out of Service”, compliance with other requirements in this permit, such as source testing, shall be at the discretion of VCAPCD personnel.
4. In order to ensure that compliance with this condition is being maintained, the permittee shall annually certify that an emissions unit designated as “Out of Service” is shut down and not being operated.

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**Ventura County Air Pollution Control District
Additional Permit Requirements
Flare**

Rule 26, "New Source Review"

Conditions applied pursuant to Rule 26 are federally enforceable.

**Rule 54, "Sulfur Compounds"
Adopted 01/14/14, Federally Enforceable**

**Rule 71.1, "Crude Oil Production and Separation"
Adopted 06/16/92, Federally Enforceable**

**Rule 71.3, "Transfer of Reactive Organic Compound Liquids"
Adopted 06/16/92, Federally-Enforceable**

Applicability:

This attachment applies to the following flare:

- 1 - 5 MMBTU/hr Flare, PROS, Inc., Model FLTR-1 (trailer mounted), 45 scf/hr Mactronic electric auto ignition pilot, 26' high, Coanda effect technology, equipped with sulfur pre-treatment system

The flare will be used for combustion of gases pursuant to Rules 71.1.B.1.a or 71.1.C.1 by burning excess gas that cannot be combusted in the steam generators or asphalt heaters.

These requirements are in addition to any other specific or general requirements referenced in this permit.

Conditions:

1. There is no annual gas consumption limit at the flare. Permitted emissions for the flare are based on 8,760 hours per year.
2. The flare shall be equipped with a functional, operating automatic ignition system equipped with a gas pilot to ensure combustion disposal of all excess produced or recovered gases. (Rules 71.1 and 71.3)
3. Permittee shall test the flare's ignition system monthly and shall maintain a monthly record of the flare's ignition system tests and maintenance activities, including the test date and operator's initials. (Rules 71.1 and 71.3)

4. The flare shall be smokeless. This condition is applied as BACT. (Rule 26)
5. Flare Oxides of Sulfur (SO_x) Emission Requirements:
 - a. The sulfur content of the gas entering each emergency flare shall not exceed 20 ppmvd, calculated as hydrogen sulfide (H₂S) at standard conditions.
 - b. The flare gas sulfur pre-treatment system shall be operated whenever the flare is operated as necessary to comply with the 20 ppmvd limit above.
 - c. Annual testing for sulfur compounds in the flare gas shall be conducted using H₂S detector tubes, SCAQMD Method 307-91, or EPA Method 16, as applicable.

(Rules 26 and 54)

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9. GENERAL APPLICABLE REQUIREMENTS (ATTACHMENTS)

The general applicable requirements are broadly applicable requirements that apply and are enforced in the same manner for all subject emissions units or activities. These requirements can normally be adequately addressed in the permit application with minimal or no reference to any specific emissions unit or activity, provided that the scope of the requirement and the manner of its enforcement are clear. Examples of such requirements include those that apply identically to all emissions units at a facility (e.g., source-wide opacity limits), general housekeeping requirements, and requirements that apply identical emissions limits to small units (e.g., process weight requirements).

As detailed in the Title V Permit Reissuance Application, general applicable requirements that apply to this facility were determined. The permit conditions associated with each generally applicable requirement are listed in an individual attachment. The attachment is identified with the label "Attachment (APCD Rule No.) ____" in the lower left corner of each attachment. Each attachment has an applicability section that describes the emissions units to which the attachment applies. Each attachment may apply to one or more of the emissions units listed in the Applicable Requirements Table of Section No. 2. Note that these general applicable requirements may also apply to emissions units not required to be listed in the permit, such as those that are short-term.

Ventura County Air Pollution Control District
Rule 50 Applicable Requirements
Opacity

Rule 50, "Opacity"

Adopted 04/13/04, Federally-Enforceable

Applicability:

This attachment applies to all emissions units at this stationary source.

Conditions:

1. Pursuant to Rule 50.A, permittee shall not discharge into the atmosphere from any single source whatsoever any air contaminants for a period or periods aggregating more than three (3) minutes in any one (1) hour which are as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, or equivalent to 20% opacity and greater, unless specifically exempted by Rule 50.
2. Permittee shall perform periodic visual inspections to ensure that compliance with Rule 50 is being maintained. A record shall be kept of any occurrence of visible emissions other than uncombined water greater than zero percent for a period or periods aggregating more than three (3) minutes in any one (1) hour. These records shall include the date, time, and identity of emissions unit. If the visible emissions problem cannot be corrected within 24 hours, permittee shall provide verbal notification to the District within the subsequent 24 hours. These visible emissions records shall be maintained at the facility and submitted to the District upon request. Records of zero percent visual emissions are not required.
3. On an annual basis, permittee shall certify that all emissions units at the facility are complying with Rule 50. This annual compliance certification shall include a formal survey identifying the date, time, emissions unit, and verification that there are no visible emissions other than uncombined water greater than zero percent for a period or periods aggregating more than three (3) minutes in any one (1) hour. As an alternative, the annual compliance certification shall include a formal survey identifying the date, time, emissions unit, and verification that there are no visible emissions for a period or periods aggregating more than three (3) minutes in any one (1) hour which are as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, or equivalent to 20% opacity and greater, as determined by a person certified in reading smoke using EPA Method 9, or any other appropriate test method as approved in writing by the District, the California Air Resources Board, and the U.S. Environmental Protection Agency.
4. Upon District request, opacity shall be determined by a person certified in reading smoke using EPA Method 9 or a certified, calibrated monitoring system.

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**Ventura County Air Pollution Control District
 Rule 54 Applicable Requirements
 Sulfur Compounds - Sulfur Emissions from
 Combustion Operations at Point of Discharge**

Rule 54, "Sulfur Compounds"
Adopted 01/14/14, Federally Enforceable

Rule 64, "Sulfur Content of Fuels"
Adopted 04/13/99, Federally-Enforceable

Applicability:

This attachment applies to all combustion emissions units at this stationary source that combust gaseous or liquid fuels. This attachment addresses the requirements of Rule 54 for sulfur emissions at the point of discharge. It can be demonstrated that compliance with the fuel sulfur content limits of Rule 64 ensures compliance with the sulfur emission limits of Rule 54.

Conditions:

1. Pursuant to Rule 54.B.1.a, no person shall discharge sulfur compounds from any combustion operation, which would exist as a liquid or gas at standard conditions, in excess of the following limit at the point of discharge:

| | |
|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 300 ppm by vol, on a dry basis, as sulfur dioxide (SO ₂), at 3% oxygen | For sources subject to: Rule 74.11, "Natural Gas-Fired Water Heaters" Rule 74.11.1, "Large Water Heaters and Small Boilers" Rule 74.15, "Boilers, Steam Generators, and Process Heaters" Rule 74.15.1, "Boilers, Steam Generators, and Process Heaters" (1 to 5 MMBTUs) |
| 300 ppm by vol, on a dry basis, as sulfur dioxide (SO ₂), at 15% O ₂ | For sources subject to: Rule 74.9, "Stationary Internal Combustion Engines" Rule 74.23, "Stationary Gas Turbines" Flares and all other combustion operations |

2. In order to comply with Rule 54, permittee shall comply with the fuel sulfur content limits of Rule 64. No additional periodic monitoring requirements for Rule 54 are required beyond the periodic monitoring requirements of Rule 64.
3. Upon District request, sulfur compounds at the point of discharge shall be determined by source testing using EPA Test Method 6, 6A, 6C, 8, 15, 16A, 16B, or South Coast AQMD Test Method 307-91 (Determination of Sulfur in a Gaseous Matrix), as appropriate.

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Ventura County Air Pollution Control District
Rule 54 Applicable Requirements
Sulfur Compounds - Sulfur Dioxide Concentration at Ground Level

Rule 54, "Sulfur Compounds"
Adopted 01/14/14, Federally Enforceable

Applicability:

This attachment applies to all emissions units at this stationary source that emit sulfur compounds. This attachment addresses the requirements of Rule 54 for sulfur emissions at ground or sea level at or beyond the property line of the stationary source.

Conditions:

1. Pursuant to Rule 54, no person shall discharge sulfur compounds, which would exist as a liquid or gas at standard conditions, as sulfur dioxide which results in average ground or sea level concentrations at any point at or beyond the property line in excess of 0.25 ppmv averaged over any one hour period, or 0.04 ppmv averaged over any 24 hour period.
2. Pursuant to Rule 54.B.2.a, no person shall discharge sulfur compounds, which would exist as a liquid or gas at standard conditions, as sulfur dioxide which results in ground or sea level concentrations at any point at or beyond the property line such that the 1-hour average design value exceeds 0.075 ppm (Vol).
 - a) For purposes of Subsection B.2.a, the design value is derived from the 3-year average of annual 99th percentile daily maximum 1-hour values. At the District's discretion, compliance with the ground or sea level concentration limit in Subsection B.2.a of this rule may be demonstrated using EPA-approved dispersion models or ambient air monitoring. If the District requires ambient air monitoring, the test method(s) listed in Subsection D.2 of this rule must be employed.
 - b) To demonstrate compliance using dispersion modeling, the annual 99th percentile daily maximum at each receptor is determined from model results as follows: for each year of meteorological data modeled, select from each day the maximum hourly modeled SO₂ concentration value and sort all these daily maximum hourly values by descending value. The 99th percentile is the 4th highest value for each modeled year. Calculate the average of the 99th percentile values for three consecutive years of modeling data for each receptor. Compliance is demonstrated if this average value is less than or equal to the design value concentration limit in Subsection B.2.a of this Rule at each receptor.
 - c) Compliance with the limit in subsection B.2.a may also be demonstrated using EPA-approved screen models. Compliance is demonstrated if the 1-hour SO₂

ground or sea level concentration does not exceed 0.075 ppm (Vol) at or beyond the property line.

- d) If ambient air monitoring data is used to demonstrate compliance, the design value must be calculated in accordance with 40 CFR Part 50 Appendix T – Interpretation of the Primary National Ambient Air Quality Standards for Oxides of Sulfur (Sulfur Dioxide).
3. Permittee shall maintain a representative fuel analysis or exhaust analysis, along with modeling data or other demonstration to ensure that compliance with Rule 54 is being maintained. This analysis and compliance demonstration shall be provided to the District upon request.
 4. Upon District request, ground or sea level concentrations of SO₂ shall be determined by Bay Area Air Quality Management District Manual of Procedures, Volume VI, Section 1, Ground Level Monitoring for Hydrogen Sulfide and Sulfur Dioxide (July 20, 1994) with the following amendments:
 - a. The wind direction shall be continuously measured and recorded to within 5 degrees of arc, and wind speed shall be continuously measured and recorded to within 0.25 miles per hour (mph) at wind speeds less than 25 mph and with a threshold no greater than 0.2 mph.
 - b. The meteorological instruments and siting requirements shall comply with the guidelines in "Quality Assurance Handbook for Air Pollution Measurements Systems, Volume IV, Meteorological Measurements Version 2.0," EPA-454/B-08-002, March 2008.
 - c. The gas standards shall be restandardized against the reference wet chemical method at a minimum of once every 12 months, or be standardized using National Institute of Standards and Technology (NIST) standard gases.

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Ventura County Air Pollution Control District
Rule 55 Applicable Requirements
Fugitive Dust

Rule 55, "Fugitive Dust"
Adopted 06/10/08, District-Enforceable

This permit attachment will become federally enforceable when Rule 55 is approved by EPA as part of the SIP.

Applicability:

This attachment applies to any operation, disturbed surface area, or man-made condition at this stationary source that is capable of generating dust. These operations may include bulk material handling, earth-moving, construction, demolition, storage piles, unpaved roads, track-out, or off-field agricultural operations.

All definitions listed in Section H of Rule 55 are applicable to this attachment. The Rule 55 definition section includes the following definitions: "disturbed surface area", "bulk material", "earth moving activities", "construction/demolition activities", "storage piles", "paved road", "track-out", and "off-field agricultural operations". All exemptions listed in Section D of Rule 55 are applicable to this attachment.

Conditions:

1. Pursuant to Rule 55.B.1, the permittee shall not cause or allow the emissions of fugitive dust from any applicable source such that the dust remains visible beyond the midpoint (width) of a public street or road adjacent to the property line of the emission source or beyond 50 feet from the property line if there is not an adjacent public street or road.
2. Pursuant to Rule 55.B.2, the Permittee shall not cause or allow the emissions of fugitive dust from any applicable source such that the dust causes 20 percent opacity or greater during each observation and the total duration of such observations (not necessarily consecutive) is a cumulative 3 minutes or more in any one (1) hour. Only opacity readings from a single source shall be included in the cumulative total used to determine compliance. Compliance with the opacity limit shall be determined by using EPA Method 9 with the modifications listed in Section F of Rule 55.
3. Pursuant to Rule 55.B.3, the permittee shall not allow track-out to extend 25 feet or more in length unless at least one of the following three control measures is utilized: track-out area improvement, track-out prevention, or track-out removal. These control measures are detailed in Rule 55.B.3.a.

4. Pursuant to Rule 55.B.3.b, notwithstanding other track-out requirements, all track-out shall be removed at the conclusion of each workday or evening shift subject to the conditions listed in Section 55.B.3.b.
5. Pursuant to Rule 55.C, the permittee shall comply with the specific activity requirements detailed in Section C of Rule 55, for earth-moving, bulk material handling, and truck hauling activities, as applicable.
6. The permittee shall comply with the specific recordkeeping requirements listed in Section E of Rule 55, as applicable.
7. On an annual basis, the permittee shall certify that all applicable sources of dust at this stationary source are operating in compliance with Rule 55. The permittee may also certify annually that there are no operations, disturbed surface areas, or man-made conditions at this stationary source that are subject to Rule 55.

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Ventura County Air Pollution Control District
Rule 57.1 Applicable Requirements
Particulate Matter Emissions from Fuel Burning Equipment

Rule 57.1, "Particulate Matter Emissions from Fuel Burning Equipment"
Adopted 01/11/05, Federally Enforceable

Applicability:

This attachment applies to fuel burning equipment such as boilers, steam generators, process heaters, water heaters, space heaters, flares, and gas turbines. This attachment does not apply to internal combustion engines, jet engine test stands and rocket engine test stands, and rocket propellant testing devices and rocket fuel testing devices. This attachment also does not apply to exhaust gas streams containing particulate matter that was not generated by the combustion of fuel; such exhaust gas streams are subject to Rule 52 and Rule 53.

Conditions:

1. Pursuant to Section B of Rule 57.1, emissions of particulate matter shall not exceed 0.12 pounds per million BTU of fuel input.

Particulate matter is defined as any material, except uncombined water, that exists in a finely divided form as a liquid or solid at standard conditions. Standard conditions are: a gas temperature of 68 degrees Fahrenheit (20 degrees Celsius) and a gas pressure of 14.7 pounds per square inch (760 mm. Hg) absolute.

2. Upon request of the District Compliance Division, compliance shall be determined by independent source test using CARB Method 5. The total particulate catch shall include the filter catch, probe catch, impinger catch, and the solvent extract, as specified in CARB Method 5. Any other appropriate test method may be used with prior written approval by the District, the California Air Resources Board, and the U.S. Environmental Protection Agency.
3. Periodic monitoring is not necessary to certify compliance with Rule 57.1. To certify compliance, a reference to the Rule 57.B District analysis dated December 3, 1997 is sufficient.

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Ventura County Air Pollution Control District
Rule 64 Applicable Requirements
Sulfur Content of Fuels - Gaseous Fuel Requirements

Rule 64, "Sulfur Content of Fuels"
Adopted 04/13/99, Federally Enforceable

Applicability:

This attachment applies to all combustion emissions units at this stationary source while the emissions units are combusting gaseous fuels. Rule 64 shall not apply to any flare gas combustion, where no useful energy is produced, and which is subject to Rule 54, "Sulfur Compounds."

Conditions:

1. Pursuant to Rule 64, no person shall burn at any time gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel (788 ppmv), calculated as hydrogen sulfide at standard conditions, unless specifically exempted by Rule 64.
2. If only Public Utilities Commission-regulated natural gas, propane, or butane is combusted at this facility, it will be assumed that the permittee is complying with Rule 64 without additional periodic monitoring requirements. Any person claiming this exemption shall maintain records sufficient to substantiate the use of these fuels.
3. If other than Public Utilities Commission-regulated natural gas, propane, or butane is being combusted, the permittee shall analyze the sulfur content of the fuel on an annual basis using South Coast AQMD Method 307-94 - Determination of Sulfur in a Gaseous Matrix or by ASTM D1072-90 (1994), Standard Test Method for Total Sulfur in Fuel Gases.

Alternatively, when measuring the sulfur content of landfill or oilfield gaseous fuel, permittee may use the colorimetric method ASTM D 4810-88 (Reapproved 1994) or the ASTM D4084-94 (Lead Acetate Reaction Rate Method) and may assume that the hydrogen sulfide content of the fuel gas adequately represents the total sulfur content. However, if the sulfur content as measured by ASTM D4810-88 or ASTM D4084-94 equals or exceeds 200 ppmv, then only South Coast AQMD Method 307-94 or ASTM D1072-90 (1994) shall be used to determine compliance.

The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis may be used subject to the verification of the dilution ratio.

Permittee may use the colorimetric method ASTM D 4810-88 (Reapproved 1994) for the measurement of the sulfur content of gaseous fuels other than landfill or oilfield gas only if written approval has been granted by the District and by US EPA.

4. Monitoring of the sulfur content of landfill or oilfield gaseous fuel by the permittee shall be at least quarterly if any of the following conditions apply:
 - a. Any sulfur measurement exceeds 394 ppmv, calculated as hydrogen sulfide at standard conditions.
 - b. A stationary source is new.
 - c. The permittee has not reported historical measurements of hydrogen sulfide of the landfill or oilfield gaseous fuel performed within the previous three years in writing to the District for a stationary source.

An operator may have the sulfur content of landfill or oilfield gaseous fuel monitored annually only, instead of quarterly, by satisfying the following provisions:

- a. During four consecutive calendar quarters, each sulfur content measurement shall not exceed 394 ppmv, calculated as hydrogen sulfide at standard conditions, and
- b. Submit a written request to the District for a reduction in monitoring frequency. This request shall contain backup documentation including monitoring reports that document the above provision. Requests for a reduction in monitoring frequency are not effective until written approval by the District is received by the operator.

This annual fuel analysis, and the quarterly analyses if applicable, shall be maintained at the facility and a copy of the annual analysis shall be provided to the District with the annual compliance certification.

**Ventura County Air Pollution Control District
Rule 64 Applicable Requirements
Sulfur Content of Fuels - Liquid Fuel Requirements**

**Rule 64, "Sulfur Content of Fuels"
Adopted 04/13/99, Federally Enforceable**

Applicability:

This attachment applies to all combustion emissions units at this stationary source while the emissions units are combusting liquid fuels. This attachment does not apply to any combustion emission unit with sulfur emission controls.

Conditions:

1. Pursuant to Rule 64, no person shall burn any liquid fuels with a sulfur content in excess of 0.5 percent, by weight, unless specifically exempted by Rule 64.
2. If only ARB-quality reformulated gasoline or ARB-certified diesel fuel is combusted at this facility, it will be assumed that the permittee is complying with Rule 64 without additional periodic monitoring requirements. Any person claiming this exemption shall maintain records sufficient to substantiate the use of these fuels.
3. If other than ARB-quality reformulated gasoline or ARB-certified diesel fuel is being combusted, for each liquid fuel delivery permittee shall either obtain the fuel supplier's certification, or shall test the sulfur content of the fuel using ASTM Method D4294-98 or D2622-98, to ensure that compliance with Rule 64 is being maintained. For liquid fuels, operators of electric power generation units may use the sampling and analysis methods prescribed in Code of Federal Regulations 40CFR Part 75 Appendix D.2.2. The fuel supplier's certification may be provided once for each purchase lot, if records are kept of the purchase lot number of each delivery.

The fuel sulfur content by weight data shall be maintained at the facility and shall be provided with the annual compliance certification.

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**Ventura County Air Pollution Control District
Rule 71.1.C Applicable Requirements
Crude Oil Production and Separation - Produced Gas**

**Rule 71.1, "Crude Oil Production and Separation"
Adopted 06/16/92, Federally-Enforceable**

**Rule 74.10, "Components at Crude Oil and Natural Gas Production and Processing
Facilities"
Adopted 03/10/98, Federally-Enforceable**

Applicability:

This attachment applies to the emissions of produced gas from equipment used in the production, gathering, storage, processing, and separation of crude oil and natural gas from any petroleum production unit prior to custody transfer. Specifically, this attachment applies to gas collection systems that are hard-piped and closed systems that direct all produced gas to a fuel or sales gas system or to a flare.

Conditions:

1. Pursuant to Rule 71.1.C.1, the emissions of produced gas shall be controlled at all times using a properly maintained and operated closed system that directs all gas, except gas used in a tank battery vapor recovery system, to one of the following:
 - a. A fuel or sales gas system
 - b. A flare that combusts reactive organic compounds
2. Pursuant to Rule 71.1.C.2, the provisions of Rule 71.1.C.1 shall not apply to wells which are undergoing routine maintenance, or to exploratory wells (during the first two weeks of production) if the composition of the produced gas is unknown (i.e., new reservoir) and there are no existing gas handling systems within 150 feet of the well.
3. Permittee shall annually certify the produced gas collection system to ensure that compliance with Rules 71.1.C.1 is being maintained. This annual certification shall include a visual inspection assuring that the produced gas collection system is a closed system.
4. If a flare is used to control the produced gas, permittee shall inspect the flare on a quarterly basis to ensure that it is operating properly. A record of these inspections shall be maintained at the facility and shall be submitted to the District upon request.

5. The gas collection system's gas and liquid piping connections are components subject to the leak requirements of Rule 74.10, "Components at Crude Oil and Natural Gas Production and Processing Facilities". Compliance with Rule 74.10 at the gas collection system ensures compliance with the maintenance requirements of Rule 71.1.C.1.

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Ventura County Air Pollution Control District
Rule 71.4.B.1 Applicable Requirements
First Stage Sump Prohibition

Rule 71.4, "Petroleum Sumps, Pits, Ponds, and Well Cellars"
Adopted 06/08/93, Federally-Enforceable

Applicability:

This attachment applies to any first stage production sump at this stationary source. A first stage production sump is a sump that receives a stream of petroleum material directly from wells or a field gathering system. A sump is a receptacle, formed primarily of earthen materials, although it may be lined with artificial materials. A sump is further defined as "in continuous use for separating oil, water, sand, or other material in petroleum production operations".

Conditions:

1. Pursuant to Rule 71.4.B.1, no person shall install, maintain, or operate a first stage production sump. A first stage production sump is a sump that receives a stream of petroleum material directly from wells or a field gathering system.
2. In order to ensure that compliance with Rule 71.4.B.1 is being maintained, permittee shall annually certify that there are no first stage production sumps at the facility.

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**Ventura County Air Pollution Control District
Rule 71.4.B.3 Applicable Requirements
Well Cellar Storage Prohibition**

**Rule 71.4, "Petroleum Sumps, Pits, Ponds and Well Cellars"
Adopted 06/08/93, Federally Enforceable**

Applicability:

This attachment applies to any well cellar at this stationary source. This attachment addresses the requirements of Rule 71.4.B.3 which prohibits the storage of crude oil or petroleum material in a well cellar. Rule 71.4 applies to well cellars at facilities where crude oil or petroleum material is produced, gathered, separated, processed, or stored.

A well cellar is a lined or unlined area around one or more oil wells, allowing access to the wellhead components for servicing and/or installation of blowout prevention equipment.

Conditions:

1. Pursuant to Rule 71.4.B.3, no person shall store crude oil or petroleum material in a well cellar except during periods of equipment maintenance or well workover. In no case shall storage occur for more than five (5) calendar days.
2. Pursuant to Rule 71.4.C, the provisions of Rule 71.4 shall not apply to well cellars used in an emergency, if clean-up procedures are implemented within 24 hours after each emergency occurrence and if clean-up procedures are completed within fifteen (15) calendar days.
3. Pursuant to Rule 71.4.D.2, any person storing crude oil in a well cellar during periods of equipment maintenance or well workover shall maintain records, which may include but are not limited to, workover invoice documents, indicating the date(s) the material was stored in the well cellar or the date(s) of workover activity. These records shall be submitted to the District upon request.
4. Pursuant to Rule 71.4.D.3, any person claiming exemption to this rule pursuant to emergency use (Condition No. 2 above), shall maintain records to justify the exemption.

Ventura County Air Pollution Control District
Rule 74.6 Applicable Requirements
Surface Cleaning and Degreasing

Rule 74.6, "Surface Cleaning and Degreasing"

Adopted 11/11/03, Federally Enforceable

Applicability:

This attachment applies to all solvent cleaning activities at this stationary source, except those activities listed in Condition No. 11 that are exempt pursuant to Section E of Rule 74.6. This attachment does not apply to substrate surface preparation regulated by other APCD surface coating, adhesive, ink, resin, and solvent rules. "Solvent" is defined as any ROC-containing liquid used to perform solvent cleaning. "Solvent cleaning" is defined as the use of organic solvent to remove loosely held uncured adhesives, uncured inks, uncured coatings, uncured resins, and other contaminants which include, but are not limited to, dirt, soil, lubricants, coolant, moisture, grease, and fingerprints, from parts, tools, machinery, equipment, and general work areas.

This attachment also contains requirements, pursuant to Rule 74.6, for cold cleaners. A cold cleaner is defined in Rule 74.6 as any batch operated equipment designed to contain liquid solvent that is operated below the solvent's boiling point to carry out solvent cleaning operations. A specific type of cold cleaner is a "remote reservoir cold cleaner" which is a device in which solvent is moved through a sink-like work area for cleaning parts and drains immediately, without forming a pool, through a single drain hole less than 100 square centimeters (15.5 square inches) in area into an enclosed container that is not accessible for soaking parts. The freeboard height for remote reservoir cold cleaners is the distance from the top of the solvent drain to the top of the tank.

This attachment does not apply to solvent cleaning where an emission control system is used pursuant to Rule 74.6.B.5 or where an alternative cleaning system is used pursuant to Rule 74.6.B.6. Pursuant to APCD Rule 23.F.7, solvents used by the permittee for facility, ground, and building maintenance and repair are exempt from the requirement to have a permit. However, unless exempted by Rule 74.6.E, such solvents are required to comply with Rule 74.6.

Conditions:

1. Pursuant to Rule 74.6.B.1, no person shall perform solvent cleaning using solvent that exceeds the following limits:
 - a. Solvents used for application equipment cleanup, and all other cleanup of uncured coatings, adhesives, inks, or resins, shall not exceed an ROC content of 900 grams per liter and an ROC composite partial pressure of 33 mmHg at 20°C, as applied.

- b. Solvents used for cleaning of electronic components, electrical apparatus components, medical devices, or aerospace components shall not exceed an ROC content of 900 grams per liter and an ROC composite partial pressure of 33 mmHg at 20°C, as applied.
 - c. Solvents used for cleaning for purposes other than those listed in (a) and (b) above shall not exceed an ROC content of 25 grams per liter, as applied.
2. Pursuant to Rule 74.6.B.2, no person shall perform solvent cleaning using a solvent with an ROC content greater than 25 grams per liter unless one of the following cleaning devices or methods is used:
 - a. Wipe cleaning where solvent is dispensed to wipe cleaning materials from containers that are kept closed to prevent evaporation, except while dispensing solvent or replenishing the solvent supply;
 - b. Non-atomized solvent flow, dip, or flush method where pooling on surfaces being cleaned is prevented or drained, and all solvent runoff is collected in a manner that enables solvent recovery or disposal. The collection system shall be kept closed to prevent evaporation except while collecting solvent runoff or emptying the collection system;

If the cleaning method has a solvent capacity more than one gallon, a cold cleaner or remote reservoir cold cleaner meeting the equipment and operating requirements of Condition Nos. 8, 9, and 10 of this attachment (Sections C and D of Rule 74.6) shall be used to comply with this requirement.
 - c. Application of solvent from a hand held spray bottle, squirt bottle or other closed container with a capacity of one liter or less;
 - d. A properly used enclosed gun washer or low emission spray gun cleaner.
3. Pursuant to Rule 74.6.B.3.a, no person shall allow liquid cleaning solvent to leak from any equipment or container.
4. Pursuant to Rule 74.6.B.3.b, no person shall specify, solicit, supply, or require any cleaning solvent or solvent cleaning equipment intended for uses governed by Rule 74.6 if such use would violate Rule 74.6. This prohibition applies to all written and oral contracts under which solvent cleaning operations subject to Rule 74.6 are to be conducted at any location in Ventura County.
5. Pursuant to Rule 74.6.B.3.c, no person shall use more than one gallon per week of

solvents containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, or chloroform, or any combination of these solvents, in a total concentration greater than 5 percent by weight, for cold cleaning except in a cold cleaner operated in accordance with National Emission Standards for Halogenated Solvent Cleaning, 40 CFR Parts 9 and 63, Subpart T, Sections 63.460 through 63.469 (Degreasing MACT Standards). Any person that uses the above solvent in quantities less than one gallon per week shall maintain records of the volume and formulation of such solvent on an as-used basis (recording use each day such material is used). Records shall be saved for at least five (5) years from the date of each record and shall be made available to District personnel upon request.

6. Pursuant to Rule 74.6.B.4.a, all ROC-containing solvents shall be stored in non-absorbent, non-leaking containers that shall be kept closed at all times except when filling or emptying.
7. Pursuant to Rule 74.6.B.4.b, waste solvent and waste solvent residues shall be disposed of in a manner conforming with Division 20, Chapter 6.5 of the California Health and Safety Code.
8. Pursuant to Rule 74.6.C.1, all cold cleaners, except remote reservoir cold cleaners, shall be equipped with the following devices:
 - a. A drying rack suspended above the solvent, or other facility for draining cleaned parts such that the drained solvent is returned to the cleaner.
 - b. A cover that prevents the solvent from evaporating when not processing work in the cleaner. If high volatility solvent is used, the cover must be a sliding, rolling, or guillotine (bi-parting) type that is designed to easily open and close, or it must be designed to be easily operated with one hand. A high volatility solvent is an unheated solvent with an ROC composite partial pressure of greater than 2 mmHg @ 20°C.
 - c. A freeboard height of at least 6 inches (15.2 centimeters), if low volatility solvent is used. A low volatility solvent is an unheated solvent with an ROC composite partial pressure of 2 mmHg or less @ 20°C.
 - d. At least one of the following control devices, if high volatility solvent is used:
 1. A freeboard height such that the freeboard ratio is at least 0.75.
 2. A water cover if the solvent is insoluble in and heavier than water.
 - e. A permanent conspicuous mark locating the maximum allowable solvent level that conforms with the applicable freeboard height requirement in Condition No. 8.c or 8.d.1.

- f. A permanent conspicuous label or sign summarizing the applicable operating requirements appropriate for cold cleaning operations.
9. Pursuant to Rule 74.6.C.2, remote reservoir cold cleaners shall be equipped with the following devices:
 - a. A permanent conspicuous label or sign summarizing the applicable operating requirements appropriate for cold cleaning operations.
 - b. A sink-like work area that is sloped sufficiently towards the drain to preclude pooling of solvent.
 - c. A single drain hole, less than 100 square centimeters (15.5 square inches) in area, for the solvent to flow from the sink into the enclosed reservoir.
 - d. A freeboard height of at least 6 inches (15.2 centimeters).
 - e. A cover for the drain when no work is being processed in the cleaner and high volatility solvent is used. If low volatility solvent is used, a cover is not required.
10. Pursuant to Rule 74.6.D, any person who operates a cold cleaner shall conform to the following operating requirements:
 - a. The operator shall drain cleaned parts of all solvent until dripping ceases to ensure that the drained solvent is returned to the cleaner.
 - b. Solvent agitation, where necessary, shall be achieved using pump recirculation, a mixer, or ultrasonics. Air agitation shall not be used.
 - c. If a solvent flow is utilized, only a solid fluid stream (not a fine, atomized, or shower type spray) shall be used.
 - d. The pressure of the solvent flow system shall be such that liquid solvent does not splash outside the container.
 - e. No person shall remove or open any required device designed to cover the solvent unless work is being processed in the cleaner or maintenance is being performed on the cleaner.
 - f. The cleaning equipment and emission control equipment shall be operated and maintained in proper working order.
 - g. The cleaning of porous or absorbent materials such as cloth, leather, wood, or rope is prohibited. This provision shall not apply to paper gaskets or paper filters.
11. Pursuant to Rule 74.6.E.1, Rule 74.6 (all requirements of this permit attachment) shall not

apply to:

- a. Cleaning activities using Clean Air Solvent, or a solvent with an ROC-content no more than 25 grams per liter as applied. A "Clean Air Solvent" is a solvent certified by the South Coast Air Quality Management District as a Clean Air Solvent.
 - b. The use of up to 160 fluid ounces of non-refillable aerosol cleaning products per day, per facility.
 - c. Janitorial cleaning including graffiti removal.
 - d. Cleaning carried out in vapor degreasers or motion picture film cleaning equipment.
 - e. Any cleaning device or mechanism regulated by National Emission Standards for Halogenated Solvent Cleaning, 40 CFR Parts 9 and 63, Subpart T, Sections 63.460 through 63.469 (Degreasing MACT Standards).
 - f. Cleaning operations subject to any of the following rules:
 - Rule 74.3, Paper, Fabric and Film Coating Operations
 - Rule 74.5.1, Petroleum Solvent Dry Cleaning
 - Rule 74.5.2, Synthetic Solvent Dry Cleaning
 - Rule 74.19, Graphic Arts Operations
 - Rule 74.19.1, Screen Printing Operations
 - Rule 74.21, Semiconductor Manufacturing
 - g. Stripping of cured coating (e.g.; stripping), cured adhesive (e.g.; debonding, ungluing), cured ink, or cured resin.
 - h. The use of solvent for purposes other than solvent cleaning activities.
12. Pursuant to Rule 74.6.E.2, Rule 74.6.B.1 (Condition No. 1 of this attachment) shall not apply to:
- a. Cleaning operations required to comply with any ROC content and/or composite vapor pressure limit in any of the following rules:
 - Rule 74.12, Surface Coating of Metal Parts and Products
 - Rule 74.13, Aerospace Assembly and Component Manufacturing Operations
 - Rule 74.14, Polyester Resin Material Operations
 - Rule 74.18, Motor Vehicle and Mobile Equipment Coating Operations
 - Rule 74.20, Adhesives and Sealants
 - Rule 74.24, Marine Coating Operations

Rule 74.24.1, Pleasure Craft Coating Operations
Rule 74.30, Wood Products Coatings

- b. Cleaning of ultraviolet lamps used to cure ultraviolet inks coatings, adhesives or resins.
- c. Cleaning of solar cells, laser hardware, scientific instruments, or high-precision optics.
- d. Cleaning conducted in laboratory tests and analyses including quality assurance/quality control applications, or bench scale or short-term (less than 2 years) research and development programs.
- e. Removal of elemental sodium from the inside of pipes and lines.
- f. Cleaning of mold release compounds from molds.
- g. Cleaning of tools used to cut or abrade cured magnetic oxide coatings.
- h. Cleaning of aerospace assembly and subassembly surfaces that are exposed to strong oxidizers or reducers such as nitrogen tetroxide, liquid oxygen or hydrazine.
- i. Cleaning of paper gaskets.
- j. Cleaning of clutch assemblies where rubber is bonded to metal by means of an adhesive.
- k. Cleaning of hydraulic actuating fluid from filters and filter housings.
- l. Removal of explosive materials and constituents from equipment associated with manufacturing, testing or developing explosives.
- m. Manufacturing cleaning of nuts and bolts designed for automotive racing applications, in a cold cleaner complying with Sections C and D of Rule 74.6 using solvent with an ROC content no more than 900 grams per liter and a ROC composite partial pressure no more than 5 mm Hg @ 20C.
- n. Cleaning of precision-lapped mechanical seals in pumps that handle liquefied gasses, in a cold cleaner complying with Sections C and D of Rule 74.6 using solvent with an ROC content no more than 900 grams per liter and a ROC composite partial pressure no more than 5 mm Hg @ 20C.
- o. Facility wide use of less than 1 gallon per week of non-compliant solvent where compliant solvents are not available. Any person claiming this exemption shall

maintain records of the volume and formulation of non-compliant solvent used on an as-used basis (recording use each day such material is used). Records shall be saved for at least five (5) years from the date of each record and shall be made available to District personnel upon request.

13. Pursuant to Rule 74.6.E.3, Rule 74.6 Sections B.1 and B.2 (Condition Nos. 1 and 2 of this attachment) shall not apply to aircraft engine gas path cleaning or stationary gas turbine gas path cleaning using solvent with an ROC content of 200 g/l or less, as applied.
14. Pursuant to Rule 74.6.F, the permittee shall maintain a current material list showing each ROC containing material used in solvent cleaning activities. The list shall summarize the following information:
 - a. Solvent name and manufacturer's description.
 - b. All intended uses of the solvent at the facility, classified as follows:
 1. Cleanup, including application equipment cleaning, or
 2. Cleaning of electronic components, electrical apparatus components, medical devices, or aerospace components, or
 3. Solvent used pursuant to an exemption in Rule 74.6.E (specify the exemption claimed).
 - c. The ROC content in units of grams per liter of material (and ROC composite partial pressure in units of mm Hg @ 20C, if applicable) of the solvent.
 - d. If the solvent is a mix of materials blended by the operator, a record of the mix ratio.

This information shall be made available to District personnel upon request.

15. Permittee shall maintain the above records and conduct periodic facility inspections, and an annual compliance certification to ensure that compliance with Rule 74.6 is being maintained. Upon request of the District, compliance with Rule 74.6 shall be determined using the following methods:
 - a. Pursuant to Rule 74.6.G.1, the ROC content of materials shall be determined by EPA Test Method 24 (40 CFR Part 60, Appendix A).
 - b. Pursuant to Rule 74.6.G.4, the identity of components in solvents shall be determined using manufacturer's formulation data or by using ASTM E168-67, ASTM E169-87, or ASTM E260-85.

- c. Pursuant to Rule 74.6.G.5, ROC composite partial pressure of a solvent shall be calculated using a widely accepted published source such as: Boublik, T., V. Fried and E. Hala, "The Vapor Pressure of Pure Substances," Elsevier Scientific Publishing Co., New York (1973), Perry's Chemical Engineers Handbook, McGraw-Hill Book Company, CRC Handbook of Chemistry and Physics, Chemical Rubber Publishing Company (1986-1987), and Lange's Handbook of Chemistry, John A. Dean, editor, McGraw-Hill Book Company (1985). The true vapor pressure of a component in a solvent mix may be determined by ASTM Method D2879-86. The ROC composite partial pressure of a solvent mix consisting entirely of ROC may be determined by ASTM Method D2879-86.
- d. Pursuant to Rule 74.6.G.6, the active and passive solvent losses from spray gun cleaning systems shall be determined using South Coast Air Quality Management District's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems" dated October 3, 1989. The test solvent for this determination shall be any lacquer thinner with a minimum vapor pressure of 105 mm Hg at 20°C. The minimum test temperature shall be 15°C.
- e. Pursuant to Rule 74.6.G.7, initial boiling point of solvent shall be determined by ASTM 1078-78 or by using a published source such as listed in Rule 74.6.G.5.

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Ventura County Air Pollution Control District
Rule 74.10 Applicable Requirements
Components at Crude Oil and Natural Gas Production and Processing Facilities

Rule 74.10, "Components at Crude Oil and Natural Gas Production and Processing Facilities"

Adopted 03/10/98, Federally Enforceable

Applicability:

This attachment applies to the crude oil and gas production facilities, pipeline transfer stations, and to natural gas processing facilities, at this stationary source. This attachment summarizes the fugitive leak and leak inspection requirements of Rule 74.10.

A crude oil and gas production facility is defined as an onshore or offshore facility at which crude petroleum and natural gas production and handling are conducted, as defined in the SIC Code as Industry No. 1311, Crude Petroleum and Natural Gas. A pipeline transfer station is defined as a facility that handles the transfer or storage of crude oil in pipelines. A natural gas processing facility is defined as a facility engaged in the separation of natural gas liquids from field gas and/or fractionation of the liquids into natural gas products, such as ethane, propane, butane, and natural gasoline. Excluded from the definition are compressor stations, dehydration units, sweetening units, field treatment, underground storage facilities, liquefied natural gas units, and field gas gathering systems unless these facilities are located at a natural gas processing plant. This attachment does not apply to petroleum refineries.

Conditions:

1. Pursuant to Rule 74.10.B, the operator shall identify all leaking components that cannot be immediately repaired. This identification shall consist of readily visible labels, tags, or other such system approved by the APCO, in writing, that enables the District and the operator to locate and identify each leaking component. Identification tags and labels shall remain visible for at least one year from the date attached.

As detailed in Rule 74.10.K.14, a leak is defined as any major gas leak, minor gas leak, major liquid leak or minor liquid leak. A leak is not a gaseous emission from a pneumatic control valve if it occurs when the valve is in the act of opening or closing. As detailed in Rule 74.10.K.3, a component is defined as any valve, stuffing box, dump lever arm, open ended line, fitting, pump seal, compressor seal, pressure relief valve, diaphragm, hatch, sight glass or meter. As detailed in Rule 74.10.K.16, a leak repair is any corrective action taken for the purposes of reducing a component leak to the lowest achievable level or at least below 1,000 ppmv for gas leaks and three drops per minute for liquid leaks using the best modern practices.

2. Pursuant to Rule 74.10.C.1, hatches shall be closed at all times except during sampling, adding of process material through the hatch, or attended maintenance operations.
3. Pursuant to Rule 74.10.C.2, no person shall use a component that emits a major gas leak, major liquid leak or minor liquid leak and the applicable maximum leak threshold for that component category, as listed in Attachment 1 of Rule 74.10, has been exceeded at the facility in any calendar quarter. The provisions of Rule 74.10.C.2 shall not apply to components that are tagged and repaired in accordance with Rules 74.10.D and 74.10.F.

For the purpose of complying with the operating requirements in Rule 74.10.C.2, any fugitive emissions leak originating at a tank seam, broken pipe or any other nondesigned opening in a process unit shall be considered an "other component" leak for the purpose of Attachment 1 of Rule 74.10.

A major gas leak, major liquid leak, and minor liquid leak are defined in Subsections K.17, K.18, and K.20 of Rule 74.10, respectively.

4. Pursuant to Rule 74.10.D.1, at natural gas processing plants, operators shall inspect with or without instrumentation all accessible operating pump seals, compressor seals, and pressure relief valves in service for leaks or indications of leaks once during every operating shift or every eight-hour period, whichever is greater.
5. Pursuant to Rule 74.10.D.2, at oil and gas production facilities and pipeline transfer stations, operators shall inspect with or without instrumentation all operating pump seals, compressor seals, pressure relief valves in service, and polished rod stuffing boxes for leaks or indications of leaks as follows:
 - a. Inspection frequency at manned facilities shall be at least once per day except when operators do not report to work at a facility at any time during that day.
 - b. Inspection frequency at unmanned facilities shall be at least once per week.
6. Pursuant to Rule 74.10.D.3, any gaseous leaks or indications of gaseous leaks discovered by inspection, that cannot be immediately repaired, shall be measured using EPA Method 21. The operator shall perform this leak measurement as follows:
 - a. For leaks detected during normal business hours, the leak measurement shall be performed as soon as feasible but no later than 24 hours after detection. If this 24 hour deadline occurs on a weekend or holiday, then the deadline is shifted to the end of the next normal business day.
 - b. For leaks detected during holidays, weekends or after business hours, the leak measurement shall be performed as soon as feasible but no later than the end of

the next normal business day.

7. Pursuant to Rule 74.10.D.4, immediately after being placed into service, an operator shall inspect all new, replaced or repaired fittings, including flanges and threaded connections, for leaks using EPA Method 21.
8. Pursuant to Rule 74.10.D.5, operators shall inspect all components, except for the following, at least every calendar quarter for gaseous leaks using EPA Method 21.
 - a. Inaccessible components or unsafe to monitor components shall be inspected for leaks by the operator at least annually using EPA Method 21.
 - b. Threaded connections and flanges shall be inspected for leaks by the operator using EPA Method 21 annually, unless the operator has designated them in the Operator Management Plan as exempt from all inspection requirements and subject to a zero leak threshold.
9. Pursuant to Rule 74.10.D.6, a pressure relief valve shall be inspected using EPA Method 21 within 3 calendar days after every known pressure release.
10. Pursuant to Rule 74.10.D.7, upon detection, operators shall affix a visible, weatherproof tag to all leaking components awaiting repair. The tag shall remain affixed until the component is repaired free of leaks as shown by re-inspection.

If the leak is gaseous, the operator shall include the following on the tag: date and time of leak detection, date and time of leak measurement; and the concentration (ppmv) measured using EPA Method 21.

If the leak is liquid, the operator shall include the following on the tag: date and time of leak detection; and whether leak is minor or major.

A tag may also be some other system approved in writing by the APCO that demonstrates to District personnel that the operator has detected a component leak awaiting repair and contains all of the information required to be on tags by Rule 74.10.D.7.

11. Pursuant to Rule 74.10.D.8, notwithstanding the requirements of Rule 74.10.D.5, operators may inspect components annually instead of quarterly at a facility by satisfying all the following provisions, except that compressor seals, pressure relief valves, polished rod stuffing boxes, and pump seals shall not be eligible for this reduction in inspection frequency:
 - a. During 4 consecutive calendar quarters, successfully operate and maintain all components at the facility so that no more than 0.5 percent of the total

components inspected, excluding polished rod stuffing boxes, have liquid leaks or major gas leaks that have not been immediately repaired.

- b. A Notice of Violation from the District for a violation of Rule 74.10.C.2 was not received by the operator for the facility during the previous twelve months.
 - c. Submit a written request to the District for a reduction in inspection frequency. This request shall contain backup documentation including inspection reports that demonstrates that the above performance level in Rule 74.10.D.8.a has been achieved. Requests for a reduction in inspection frequency are not effective until written approval by the APCO is received by the operator.
12. Pursuant to Rule 74.10.D.9, an annual inspection frequency approved in Rule 74.10.D.8 shall revert to the inspection frequency specified in Rule 74.10.D.5 should the sum of liquid leaks and major gas leaks, not including leaks from polished rod stuffing boxes, exceed 0.5 percent of the total components inspected per inspection period or should the operator receive a Notice of Violation from the District for violation of Rule 74.10.C.2 for that facility.
13. Pursuant to Rule 74.10.E.1, each operator shall submit an Operator Management Plan to the APCO for approval. If the APCO fails to respond to the Plan in writing within 90 days after it has been received, then it shall be deemed approved. No provision in the Plan, approved or not, shall conflict with or take precedence over any provision of this rule. The Plan shall identify any component exempt from this rule or part of this rule, and describe the procedures which the operator intends to use to comply with the requirements of this rule. The Plan shall include:
- a. Establishment of a data base of every leaking component that cannot be immediately repaired. The following parameters shall be included:
 - 1) Identification number, name or code.
 - 2) Component type, process unit and location.
 - 3) Dates found leaking and repair description for each leak found.

This identification provision is for inspection, repair, replacement and recordkeeping purposes.

- b. Identification of critical process units.
- c. Identification of components for which exemption from Rule 74.10 is being claimed under Rule 74.10.G.1. Gaseous streams and liquid streams, exempted by

Rule 74.10, Subsections G.1.a, G.1.b, G.1.c, or G.1.e shall be verified by analysis of the ROC concentrations, and the results of such analyses shall be included.

- d. Identification of liquid streams or components for which exemption is being claimed from the operator inspection requirements under Rule 74.10.G.3. The results of any testing used to qualify a stream for exemption shall be included.
 - e. Whether flanges or threaded fittings are exempt from all inspection requirements and subject to a zero leak threshold or whether flanges or threaded fittings are subject to annual inspection requirements and a one percent leak threshold as specified in Attachment 1 of Rule 74.10.
 - f. The inspection schedule to be followed.
 - g. Identification and description of any known hazard which may affect the safety of APCD personnel.
 - h. Identification of unmanned production facilities, if applicable.
14. Pursuant to Rule 74.10.E.2, the operator shall be required, upon written request by the APCO, to re-qualify, by analysis, the exemption(s) from the rule or part of the rule (Rule 74.10.G.1 and 74.10.G.3) if the exemption(s) may no longer be valid based on the changed composition of the process stream. The results of that analysis and any modification to the Plan shall be submitted to the District within 90 calendar days after receipt of the District request.
15. Pursuant to Rule 74.10.E.3, if the exempt status of a component is affected by a revision to Rule 74.10, then the Plan shall be modified accordingly by June 10, 1998.
16. Pursuant to Rule 74.10.E.4, existing operator management plans shall be updated no later than September 10, 1998, to include any provision that is needed to show compliance with Rule 74.10.
17. Pursuant to Rule 74.10.E.5, beginning September 10, 1998, each operator shall submit to the APCO, for approval in writing, an annual report to update the Operator Management Plan by no later than January 30 of each year. This report shall include any changes to exemptions, inspection schedule, or any other changes to the inspection and maintenance program. If no changes to the Plan have occurred over the past 12 months, then the operator shall indicate this in the annual report.

If the APCO fails to respond to the Plan update in writing within 90 days after it has been received, then it shall be deemed approved. No provision in the Plan, approved or not, shall conflict with or take precedence over any provision of Rule 74.10.

18. Pursuant to Rule 74.10.F.1, the operator shall minimize all component leaks immediately if feasible but no later than 1 hour following detection during normal business hours. Component leaks detected during holidays, weekends and after business hours shall be immediately minimized if feasible but not later than the next normal business day.
19. Pursuant to Rule 74.10.F.2, any noncritical component found leaking shall be replaced or repaired to a leak free condition, within the time periods in Table 1 of Rule 74.10. For gaseous leaks, the repair period shall start at the time of leak measurement. For liquid leaks, the repair period shall start at the time of leak detection. If the Table 1 deadline for repairing any major gas leak or any liquid leak falls on a Saturday, Sunday or holiday, then the deadline shall be shifted to the next normal business day.
20. Pursuant to Rule 74.10.F.3, the operator shall re-inspect repaired or replaced components for leaks as soon as practicable using EPA Method 21, but not later than one calendar month after the date on which the component is repaired.
21. Pursuant to Rule 74.10.F.4, any component leak identified by District personnel shall be repaired and inspected as required by Rule 74.10.F.
22. Pursuant to Rule 74.10.F.5, any open-ended line found to be leaking shall be sealed with a blind flange, cap, plug, or a second closed valve at all times except during operations requiring process fluid flow through the open-ended line or valve. If a second closed valve is used, the process side valve shall be closed first, after the completion of any operations requiring flow through the open-ended valve.
23. Pursuant to Rule 74.10.F.6, for major gas leaks (>50,000 ppm) or major liquid leaks from any critical compressor seal, pump seal, pressure relief valve or valve that cannot be repaired within the repair periods set forth in Table 1 of Rule 74.10, the operator shall replace or retrofit the leaking component with Best Available Control Technology (BACT) equipment, as approved by the APCO in writing, within one year from the date of leak detection, or during the next critical process unit shutdown, whichever occurs first.

For gas leaks less than or equal to 50,000 ppm or minor liquid leaks from critical components, or for leaks from critical components other than compressor seals, pump seals, pressure relief valves or valves, the owner or operator shall successfully repair or replace all leaking components within one year from leak detection or during the next critical process unit shutdown, whichever occurs first.

The operator shall notify the District in writing within 3 months after detecting a major gas leak (> 50,000 ppm) or major liquid leak from a critical compressor seal, pump seal, pressure relief valve, or valve if such leak cannot be repaired within the repair periods set

forth in Table 1 of Rule 74.10.

24. Pursuant to Rule 74.10.F.7, for a compressor seal, pump seal, pressure relief valve or valve that emits a total of 5 major leaks within a continuous 12 month period, the operator shall replace or retrofit the leaking component with BACT equipment, as approved by the APCO in writing, within one year from date of leak detection. The operator shall notify the District in writing within 3 months after a compressor, pump, pressure relief valve, or valve has had 5 major leaks in the previous 12 months.
25. Pursuant to Rule 74.10.G.1, the requirements of Rule 74.10 shall not apply to the following components that are verified in the Operator Management Plan:
 - a. Components, not at natural gas processing plants, with gaseous streams with ROC concentrations of 10 percent, by weight or less.
 - b. Components at natural gas processing plants with gaseous streams with ROC concentrations of one percent, by weight or less.
 - c. Components, not at natural gas processing plants, in liquid service, with ROC concentrations of 10 percent, by weight or less.
 - d. Underground components.
 - e. Components exclusively handling fluids if the fluid weight evaporated is 10 percent or less at 150 degrees Celsius.
26. Pursuant to Rule 74.10.G.2, the operator inspection requirements of Rule 74.10.D shall not apply to the following components. All other requirements of this rule shall still apply.
 - a. Pump seals, compressor seals, and pressure relief valves that are equipped with a closed-vent system to a vapor recovery system. The vapor disposal portion of the vapor recovery system shall consist of one of the following:
 - 1) A system which directs all vapors to a fuel gas system, a sales gas system, or a flare that combusts ROC.
 - 2) Any other system that processes all vapors and has a ROC vapor destruction or removal efficiency of at least 90 percent, by weight.
 - b. One-half inch and smaller stainless steel tube fittings that have been determined to be leak-free.

- c. Components in vacuum service.
 - d. Flanges or threaded connections that are designated in the Operator Management Plan as subject to the zero leak threshold specified in Attachment 1 of Rule 74.10.
27. Pursuant to Rule 74.10.G.3, the operator inspection requirements of Rule 74.10, Subsections D.1, D.2, D.4 and D.5 shall not apply to components that are inspected with or without instrumentation on a quarterly basis and are at oil and gas production facilities or pipeline transfer stations that handle liquids with the following properties and specified vapor recovery systems:
- a. Liquid having an API gravity of 20 degrees or less after the point of primary separation;
 - b. Liquid having an API gravity between 20 and 30 degrees which are located either:
 - 1) Downstream of a wellhead equipped with a casing vapor recovery system, provided that the vapor recovery system is operated at a pressure of less than 10 psig; or
 - 2) After the point of primary separation of oil and gas, provided the separation vessel is equipped with a vapor recovery system and is operated at a pressure of less than 25 psig.
28. Pursuant to Rule 74.10.G.4, an owner or operator may petition the APCO for exemption from the replacement or retrofit requirements in Rules 74.10.F.6 and 74.10.F.7 by submitting a cost evaluation for retrofitting or replacing a compressor, pump, pressure relief valve, or valve. Each petition shall include:
- a. A cost-effectiveness evaluation conducted in accordance with "BACT Cost-Effectiveness Procedures and Screening Levels for Costs," adopted by the Air Pollution Control Board on December 20, 1988. The cost analysis shall be based on the retrofit cost of the component if a retrofit is feasible. If the component cannot be retrofitted, then the following control option with the lower cost shall be used in the cost analysis:
 - 1) Component replacement with the lowest feasible cost BACT option.
 - 2) Enclosing the component seal and venting to a vapor recovery system.
 - b. Evidence of costs with written bids from vendors, published price lists, or other verifiable cost information. The potential emission reduction from the component retrofit/replacement shall be based on the ROC emissions over the previous 12

months. ROC emissions from a critical process unit shutdown shall be included if those emissions are associated with a critical leaking component. APCO-approved emission factors or source tests shall be used to quantify emissions.

29. Pursuant to Rule 74.10.H.1, any person subject to Rule 74.10 shall maintain an inspection log. The inspection log shall contain at least the following:
 - a. Location, type, description, and name or code of each leaking component inspected that cannot be immediately repaired, and name of associated operating unit.
 - b. For liquid leaks that cannot be immediately repaired: Date and time of leak detection and whether leak is major or minor.
 - c. For gaseous leaks that cannot be immediately repaired: Date and time of leak detection, date and time of leak measurement, analyzer reading (ppmv) of the leak, and whether the leak is major or minor.
 - d. Date that leak referenced in Rule 74.10.H.1.b or Rule 74.10.H.1.c is repaired to a leak-free condition, description of repair action, and date and emission level of re-check.
 - e. Identification of leak as critical if the component is critical.
 - f. Maintenance and calibration records of appropriate analyzer used in the EPA Method 21 measurements.
30. Pursuant to Rule 74.10.H.2, where a functional pressure relief has been detected, the operator shall record:
 - a. Location, operating unit identification, and date of detection.
 - b. Date of inspection of the pressure relief device after it was detected, and analyzer reading from EPA Method 21.
31. Pursuant to Rules 74.10.H.3 and 74.10.H.4, the inspection log shall be retained by the operator and shall be made available upon request to District personnel.
32. Pursuant to Rule 74.10.I.1, gaseous leaks from components shall be inspected or determined by EPA Method 21 by using an appropriate analyzer calibrated with methane. The calibration, maintenance, and operation of the appropriate analyzer shall follow the manufacturer's recommendations.

33. Pursuant to Rule 74.10.I.2, the ROC concentration, by weight, of process streams shall be measured by ASTM E168-88 (General Techniques of Infrared Qualitative Analysis), ASTM E169-87 (General Techniques of Ultraviolet Quantitative Analysis), or ASTM E260-85 (Gas Chromatography), or updated versions of these methods approved by EPA and published in the 40 CFR Part 60.
34. Pursuant to Rule 74.10.I.3, weight percentage of evaporated compounds of liquids shall be determined using ASTM Method D 86-82.
35. Pursuant to Rule 74.10.I.4, the API gravity of crude oil shall be determined using ASTM Method D287.
36. Pursuant to Rule 74.10.J, the failure of a person to meet any requirements of Rule 74.10 shall constitute a violation of Rule 74.10. Each leak exceeding the applicable maximum leak threshold in Attachment 1 of Rule 74.10 discovered by District personnel will be considered to be a violation.

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Ventura County Air Pollution Control District
Rule 74.11.1 Applicable Requirements
Rule 74.11.1, Large Water Heaters and Small Boilers

Rule 74.11.1, "Large Water Heaters and Small Boilers"
Adopted 09/11/12, Federally Enforceable

Applicability:

This attachment applies to all natural gas-fired water heaters, boilers, steam generators or process heaters (units) with a rated heat input capacity greater than or equal to 75,000 BTU/hr and less than 1,000,000 BTU/hr at this stationary source installed after January 1, 2013 and to the future installation of any such unit at this stationary source. Note that units rated less than 1,000,000 BTU/hr are exempt from District permit requirements pursuant to Rule 23.C.1.

Conditions:

1. Pursuant to Rule 74.11.1.B.2, no person shall sell, offer for sale, or install in Ventura County any new unit with a rated heat input capacity of greater than or equal to 75,000 BTU/hr and less than or equal to 400,000 BTU/hr that does not meet the following criteria:
 - a. Oxides of nitrogen emissions shall not exceed 14 nanograms per joule of heat output (32.5 pounds per billion BTU), or 20 parts per million, and
 - b. The unit is certified in accordance with Rule 74.11.1.C.

The oxides of nitrogen emission standard required above (Condition No. 1.a) does not apply to units specifically designed to heat swimming pools, hot tubs, or spas. For such units, oxides of nitrogen emissions shall not exceed 40 nanograms per joule of heat output (93 pounds per billion BTU), or 55 parts per million.

2. Pursuant to Rule 74.11.1.B.4, no person shall sell, offer for sale, or install in Ventura County any new unit with a rated heat input capacity of greater than 400,000 BTU/hr and less than 1,000,000 BTU/hr that does not meet the following criteria:
 - a. Oxides of nitrogen emissions shall not exceed 20 parts per million and carbon monoxide emissions shall not exceed 400 parts per million, and
 - b. The unit is certified in accordance with Rule 74.11.1.C.
3. The permittee shall maintain a listing of manufacturer, brand name, model number, heat input rating, and installation date for each water heater, boiler, steam generator and

process heater, with a rated heat input capacity greater than or equal to 75,000 BTU/hr and less than 1,000,000 BTU/hr, at this stationary source. Permittee shall submit these identification records for all of these units to the District upon request.

4. On an annual basis, the permittee shall certify that all water heaters, boilers, steam generators and process heaters, with a rated heat input capacity greater than or equal to 75,000 BTU/hr and less than 1,000,000 BTU/hr, at this stationary source are complying with Rule 74.11.1. This annual certification shall include a formal survey identifying each unit and documentation of certification status (pursuant to Rule 74.11.1.C), as required.

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Ventura County Air Pollution Control District
Rule 74.22 Applicable Requirements
Rule 74.22, Natural Gas-Fired Fan-Type Central Furnaces

Rule 74.22, "Natural Gas-Fired Fan-Type Central Furnaces"
Adopted 11/09/93, Federally Enforceable

Applicability:

This attachment applies to all natural gas-fired, fan-type central furnaces at this stationary source installed after May 31, 1994 and to the future installation of any natural gas-fired, fan-type central furnaces at this stationary source. A fan-type central furnace is a self contained space heater providing for circulation of heated air at pressures other than atmospheric through ducts of more than 10 inches in length that has a rated heat input capacity of less than 175,000 BTU per hour and, for combination heating and cooling units, a rated cooling capacity of less than 65,000 BTU per hour. Natural gas-fired, fan-type central furnaces installed in manufactured housing (mobile homes) are exempt from Rule 74.22.

Conditions:

1. Pursuant to Rule 74.22.B, no person shall install, after May 31, 1994, any natural gas-fired fan-type central furnace:
 - a. with NO_x (oxides of nitrogen) emissions in excess of 40 nanograms per joule of heat output. (74.22.B.1)
 - b. unless it is certified and identified in accordance with Section C of Rule 74.22. (74.22.B.2)
2. Permittee shall maintain a listing of manufacturer, brand name, model number, and heat input rating for each natural gas-fired fan-type central furnace at this stationary source. Permittee shall submit these identification records for all of these furnaces to the District upon request.
3. On an annual basis, permittee shall certify that all natural gas-fired fan-type central furnaces at this stationary source are complying with Rule 74.22. This annual certification shall include a formal survey identifying each natural gas-fired fan-type central furnace; whether it was installed before or after May 31, 1994; and for those furnaces installed after May 31, 1994, information indicating that the certification is contained on the furnace nameplate, or that the furnace is included on a District-provided list of certified furnaces.

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**Ventura County Air Pollution Control District
California Air Resources Board
Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities**

California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10 Climate Change, Article 4, Subarticle 13:

Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities, Effective date October 1, 2017

District enforceable only. The Ventura County APCD (VCAPCD) signed a Memorandum of Understanding (MOU) with the California ARB on June 12, 2018 to implement and enforce this regulation. Prior to June 12, 2018, this regulation was implemented and enforced only by California Air Resources Board (CARB). The regulation is not federally-enforceable.

Applicability:

This regulation applies to owners or operators of equipment and components listed in Section 95668 located within California, including California waters, that are associated with facilities in the sectors listed below, regardless of emissions level:

- (1) Onshore and offshore crude oil or natural gas production; and,
- (2) Crude oil, condensate, and produced water separation and storage; and,
- (3) Natural gas underground storage; and,
- (4) Natural gas gathering and boosting stations; and,
- (5) Natural gas processing plants; and,
- (6) Natural gas transmission compressor stations.

This regulation does not apply to the OCS Offshore Oil Platforms that the VCAPCD regulates because they are not in state territorial waters.

VCAPCD enforces this regulation through its existing permit system. As required below, facilities are required to register equipment with the California ARB on an initial and annual basis.

Conditions:

1. The facility shall be operated in compliance with all applicable requirements of Sections 95665 to 95677, Title 17, Division 3, Chapter 1, Subchapter 10 Climate Change, Article 4, Subarticle 13 California Code of Regulations, "Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities". This includes, but is not limited to, the following requirements.

2. Separator and tank systems shall comply with Section 95668(a). Note that the GHG Regulation defines a separator as a tank or pressure vessel for separating oil, water, condensate, and natural gas. In VCAPCD terminology, a “Wash Tank” is a “Separator” in the GHG Regulation. VCAPCD LACT Tanks, COST Tanks, and Produced / Waste Water Tanks are “Tanks” in the GHG Regulation. Note that VCAPCD Rule 71.1, “Crude Oil Production and Separation” is far more stringent than the GHG Regulation in terms of requiring vapor recovery systems for Separator and Tank Systems. Flash testing is not required for new and existing tanks equipped with vapor recovery systems required by Rule 71.1.
3. Circulation tanks for well stimulation treatments shall comply with Section 95668(b).
4. Reciprocating natural gas compressors shall comply with Section 95668(c).
5. Centrifugal natural gas compressors shall comply with Section 95668(d).
6. Natural gas powered pneumatic devices and pumps shall comply with Section 95668(e).
7. Liquid unloading of natural gas wells shall comply with Section 95668(f).
8. Well casing vents shall comply with Section 95668(g).
9. Natural gas underground storage facilities shall comply with the monitoring requirements of Section 95668(h).
10. The facility shall comply with the leak detection and repair requirements of Section 95669. Critical components at critical process units shall comply with Section 95670.
11. Vapor collection systems and vapor control devices shall comply with Section 95671. These requirements do not apply to existing vapor collection systems and vapor control devices that are required by VCAPCD Rule 71.1, Section B for storage tanks and Rule 71.1, Section C for produced gas.

The GHG Regulation defines “fuel gas system” and the VCAPCD considers it to be on-site combustion of natural gas in engines, boilers, heater treaters, steam generators, turbines, microturbines, glycol units, etc. Some oilfield facilities may sell gas to a party other than Southern California Gas (such as a nearby agricultural source). The VCAPCD considers these 3rd party gas sales to be a “sales gas system” in the GHG Regulation.

12. The facility shall comply with the record keeping requirements of Section 95672.
13. The facility shall comply with the reporting requirements of Section 95673.

14. The facility shall comply with the implementation requirements of Section 95674. The facility shall register equipment with the California Air Resources Board (ARB) on an initial basis as required by Section 95674(b)(2) and on an annual basis as required by Section 95674(b)(3).

The facility is not required to submit a permit application to the Ventura County APCD as a mechanism to comply with this regulation. This regulation, however, does not change the Ventura County APCD Rule 10 permitting requirements for new, modified, and replacement oil wells, gas wells, storage tanks, engines, loading racks, heaters, boilers, glycol units, flare, etc.

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10. GENERAL REQUIREMENTS FOR SHORT-TERM ACTIVITIES (ATTACHMENTS)

The general requirements for short-term activities are broadly applicable requirements that apply to temporary activities at the facility (e.g., abrasive blasting, architectural coatings, degassing operations, etc.). These are activities occurring infrequently and for a short duration.

Requirements for short-term activities can normally be adequately addressed in the permit application with minimal or no reference to any specific emissions unit, provided that the scope of the requirement and the manner of its enforcement are clear.

As detailed in the Title V Permit Reissuance Application, general applicable requirements for short-term activities that apply to this facility were determined. The permit conditions associated with each requirement for a short-term activity are listed in an individual attachment. The attachment is identified with the label "Attachment (APCD Rule No.) ____" or "Attachment 40CFR61.M" in the lower left corner of each attachment.

Ventura County Air Pollution Control District
Rule 74.1 Applicable Requirements
Abrasive Blasting

Rule 74.1, "Abrasive Blasting"
Adopted 11/12/91, Federally Enforceable

Applicability:

This attachment applies to short term activities involving any abrasive blasting operation conducted at this facility. Abrasive blasting is the operation of cleaning or preparing a surface by forcibly propelling a stream of abrasive material against that surface. Abrasive materials subject to Rule 74.1 include, but are not limited to, sand, slag, steel shot, garnet or walnut shells.

Conditions:

1. Pursuant to Rule 74.1.B.1.a, all abrasive blasting operations shall be conducted within a permanent building, except for abrasive blasting operations conducted under one or more of the following conditions as detailed in Rule 74.1.B.1.b:
 - a. Steel or iron shot/grit is used exclusively
 - b. The item to be blasted exceeds eight feet in any dimension
 - c. The surface being blasted is situated at its permanent location or no further away from its permanent location than is necessary to allow the surface to be blasted
2. Pursuant to Rule 74.1.B.1.c, any abrasive blasting that is allowed to be conducted outside of a permanent building, and is not exclusively using steel or iron shot/grit, must use one of the following:
 - a. Wet abrasive blasting
 - b. Hydroblasting
 - c. Vacuum blasting
 - d. Dry blasting with California ARB certified abrasives
3. Abrasive blasting for pavement marking shall comply with the requirements of Rule 74.1.B.2.

4. Abrasive blasting of stucco and concrete shall comply with the requirements of Rule 74.1.B.3.
5. Packages or containers for abrasives certified in accordance with Section 92530 of the California Code of Regulations used for permissible outdoor blasting shall comply with the labeling requirements of Rule 74.1.B.4.
6. Abrasive blasting operations shall comply with the visible emission standards of Rule 74.1.C.1 and the nuisance prohibition of Rule 74.1.C.2. The visible emission evaluation of abrasive blasting operations shall be conducted in accordance with Section 92400 of the California Code of Regulations.
7. Permittee shall monitor each abrasive blasting operation to ensure that compliance with Rule 74.1 is being maintained. For each abrasive blasting operation conducted at the facility, permittee shall maintain records of the following information:
 - a. Date of operation
 - b. Type of abrasive blasting media used
 - c. Identity, size, and location of item blasted
 - d. Whether operation was conducted inside or outside a permanent building
 - e. California ARB certifications for abrasives used

These records shall be maintained at the facility and submitted to the District upon request.

Ventura County Air Pollution Control District
Rule 74.2 Applicable Requirements
Architectural Coatings

Rule 74.2, "Architectural Coatings"
Adopted 01/12/10, Federally Enforceable

Applicability:

This attachment applies to short term activities involving any person who supplies, sells, offers for sale, applies or solicits the application of any architectural coating at this stationary source. An architectural coating is a coating to be applied to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to nonstationary structures, such as airplanes, ships, boats, railcars and automobiles, are not considered to be architectural coatings for the purposes of this rule, nor are adhesives.

This attachment and Rule 74.2 do not apply to architectural coatings that are sold in a container with a volume of one liter (1.057 quart) or less and do not apply to any aerosol coating product.

Conditions:

1. Pursuant to Rule 74.2.B.1, the volatile organic compound (VOC) content of architectural coatings shall not exceed the following standards, as found in Table 2 of Rule 74.2.B.1, unless specifically exempted by Rule 74.2:
 - a. The VOC content of flat coatings shall not exceed 50 grams per liter of coating.
 - b. The VOC content of nonflat coatings shall not exceed 100 grams per liter of coating.
 - c. The VOC content of nonflat-high gloss coatings shall not exceed 150 grams per liter of coating.

Limits are expressed as VOC Regulatory (unless otherwise specified in Rule 74.2) thinned to the manufacturer's maximum recommendation, excluding colorant added to the tint bases. VOC Regulatory is defined in Rule 74.2.

2. Pursuant to Rule 74.2.B.1, the VOC content of specialty architectural coatings shall not exceed the VOC limits in the Table of Standards in Rule 74.2, unless specifically exempted by Rule 74.2.

Specifically, the VOC content of industrial maintenance coatings shall not exceed 250 grams per liter of coating.

Limits are expressed as VOC Regulatory (unless otherwise specified in Rule 74.2) thinned to the manufacturer's maximum recommendation, excluding colorant added to the tint bases. VOC Regulatory is defined in Rule 74.2.

3. Pursuant to Rule 74.2.B.4, all architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.
4. Pursuant to Rule 74.2.B.5, no person who applies or solicits the application of any architectural coating shall apply or solicit the application of any coating that is thinned to exceed the applicable VOC limit specified in the Tables in Subsection B.1.
5. Permittee shall conduct periodic facility inspections and an annual compliance certification of architectural coating operations to ensure that compliance with Rule 74.2 is being maintained. Permittee shall specify the usage of compliant coatings and shall maintain VOC records of coatings used at the stationary source. The VOC coating records shall be submitted to the District upon request.
6. The VOC content of architectural coatings, along with other specified physical and chemical properties, shall be measured using the testing procedures in Rule 74.2.G.

Ventura County Air Pollution Control District
Rule 74.4.D Applicable Requirements
Cutback Asphalt - Road Oils

Rule 74.4, "Cutback Asphalt"
Adopted 07/05/83, Federally-Enforceable

Applicability:

This attachment applies to short term activities involving the application of road oils for road, highway or street paving and maintenance. For the purpose of Rule 74.4, road oil shall be synonymous with slow cure asphalt.

Conditions:

1. Pursuant to Rule 74.4.D, road oils used for highway or street paving or maintenance applications shall contain no more than 0.5 percent of organic compounds which boil at less than 500°F as determined by ASTM D402.
2. Permittee shall maintain a test report of oil being proposed for usage in order to ensure that compliance with Rule 74.4.D is being maintained. Permittee shall maintain records of oil analyses at the facility and submit these records to the District upon request.

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Ventura County Air Pollution Control District
Rule 74.16 Applicable Requirements
Oilfield Drilling Operations

Rule 74.16, "Oilfield Drilling Operations"
Adopted 01/08/91, Federally-Enforceable

Applicability:

This attachment applies to short term activities involving all oilfield drilling operations. Oilfield drilling operations are defined as activities powered by nonvehicular internal combustion engines for the purpose of drilling or redrilling oil wells, injection wells, or gas wells. For the purpose of Rule 74.16, drilling operations do not include any operations at any existing well where the derrick is a part of an oilwell production service unit, as defined in the California Vehicle Code. Rule 74.16 applies to drill rig engines over 50 HP including, but not limited to, engines supplying power to drawworks, rotary tables, mud pumps, mud mixers and auxiliary generators.

This attachment applies to an oil company, which Rule 74.16 defines as the person contracting the drilling rig and/or the person who applies for an Authority to Construct for the well. The APCD issues portable Permits to Operate to the owners of drilling rigs. If the drilling rig is registered with the California Air Resources Board Portable Equipment Registration Program (PERP), an APCD Permit to Operate is not required.

This permit does not authorize the operation of any non-vehicular engine of 50 BHP, or greater, for well drilling or workover operations. Prior to using such an engine, the engine owner shall obtain a Permit to Operate for the engine or shall use an engine that is registered with the California Air Resources Board PERP.

Conditions:

1. Pursuant to Rule 74.16.B.1, all drilling operations shall be powered by grid power, unless exempted by Rule 74.16.C.1. Grid power is defined as electricity conveyed by power lines connected physically and contractually to the Southern California Edison System, or any electricity generated by equipment permitted by the District and having permitted emissions commensurate with an emissions rate of not more than 1.0 pound of NO_x per megawatt-hour of electricity produced.
2. Pursuant to Rule 74.16.C.1, an oil company may petition the Air Pollution Control Officer for exemption from Rule 74.16.B.1 by submitting a cost evaluation for grid powered drilling. Best Available Control Technology cost guidelines shall be used to determine cost effectiveness. As detailed in APCD Rule 44, "Exemption Evaluation Fee", Rule 44.B.2 requires that any person requesting an exemption from Rule 74.16 that is based on a cost evaluation shall be assessed an evaluation fee of \$450.00.

3. Pursuant to Rule 74.16.B.2.a, if a drilling operation is exempt from Rule 74.16.B.1, NO_x emissions from drilling engines, or any exhaust stack of multiple engines permanently manifolded together, shall not exceed 515 ppmv corrected to 15% oxygen. As an alternate, pursuant to Rule 74.16.B.2.c, drilling engines certified by the manufacturer to emit 6.9 grams of NO_x per brake horsepower-hour or less based on a California ARB approved heavy duty offroad engine testing procedure shall be deemed in compliance with Rule 74.16.B.2.a, and shall not be subject to the annual source test requirements in Rule 74.16.B.2.b.

In order to comply with this condition, permittee shall ensure that the drilling rig utilized has a valid APCD Permit to Operate and that the drilling rig has demonstrated compliance with Rule 74.16.B.2.a in accordance with CARB Method 100 as detailed in Rule 74.16.E (Test Methods), or has demonstrated compliance with Rule 74.16.B.2.c. Alternatively, the permittee shall verify that the drilling rig is registered with the California Air Resources Board PERP.

4. In order to demonstrate compliance with Rule 74.16.B.2.a, the drilling rig company shall perform source testing on the drilling engine exhaust annually. Permittee shall obtain from the drilling rig company the most recent source test results for the exempt engines subject to Rule 74.16.B.2.a, or the engine manufacturer certification for engines subject to Rule 74.16.B.2.c. This information shall be made available on site and submitted to the District upon request.

This condition does not apply to drilling rig engines registered with the California Air Resources Board PERP.

5. Upon District request, the NO_x emissions from the drilling engine exhaust shall be measured using CARB Method 100, in accordance with Rule 74.16.E (Test Methods).
6. In order to demonstrate compliance with Rule 74.16.C.1, permittee shall maintain documentation on the cost analysis as verification to the grid power exemption. This documentation shall be submitted to the District upon request.

Ventura County Air Pollution Control District
Rule 74.26 Applicable Requirements
Crude Oil Storage Tank Degassing Operations

Rule 74.26, "Crude Oil Storage Tank Degassing Operations"
Adopted 11/08/94, Federally-Enforceable

Applicability:

This attachment applies to short term activities involving degassing of any aboveground crude oil or produced water storage tank that is equipped with a vapor recovery system and has a storage capacity greater than 2,000 barrels; or has a storage capacity of 2,000 barrels and stores a liquid having a modified Reid vapor pressure (mRVP) of 3.4 pounds per square inch (psi) absolute or greater. This attachment also applies to any external or internal floating roof crude oil tank that has a vapor space of 2,000 barrels or more when the tank's roof is resting on the tank's inner roof supports. Rule 74.26 does not apply to vessels rated and operated to contain normal working pressure of at least 15 psi gauge without vapor loss to the atmosphere.

Degassing is defined as the removal of organic vapors from a stationary storage tank for the purpose of cleaning, removing the tank, cleaning the tank's interior, or making repairs to the tank that would require the complete removal of product from the tank.

This permit does not authorize the operation of any air pollution control device for tank degassing operations. This includes, but is not limited to, a thermal or catalytic incinerator, a carbon adsorber, a condenser, or an internal combustion engine. Prior to using such a device, the owner of the air pollution control device shall obtain a Permit to Operate for the device.

Conditions:

1. Pursuant to Rule 74.26.B.1, no person shall conduct or allow the degassing of any storage tank subject to Rule 74.26, unless the emissions are controlled by one of the following options:
 - a. Liquid displacement into a vapor recovery system, flare, or fuel gas system (Rule 74.26.B.1.a). Liquid displacement is defined as the removal of ROC vapors from within a storage tank drained of liquid product by introducing into the tank a liquid having an ROC modified Reid vapor pressure (mRVP) of less than 0.5 psi absolute until at least 90 percent of the tank's vapor volume has been displaced, with the mRVP determined using ASTM Method D 323-82 conducted at 68 degrees Fahrenheit (Rule 74.26.F.10). or
 - b. An air pollution control device that has a vapor destruction and removal efficiency of at least 95 percent until the vapor concentration in (Rule 74.26.B.1.b):

1. Aboveground crude oil or produced water tanks equipped with a vapor recovery system, is less than 10 percent of the tank's initial vapor concentration determined immediately prior to the tank degassing, or less than 10,000 ppmv, measured as methane, or
2. Floating roof tanks, is less than 10,000 ppmv, measured as methane.

Fugitive emissions that do not qualify as a leak shall be allowed around tank openings such as a manhole during a tank degassing operation performed in compliance with Rule 74.26.

Pursuant to Rule 74.26.E.3, compliance with the above limits shall require that the tank vapor concentration remain at or below 10,000 ppmv for at least one hour as demonstrated by measuring the vapor concentration at least four times at 15-minute intervals. The monitoring instrument used to measure the vapor concentration shall meet the specifications of EPA Method 21.

2. Pursuant to Rule 74.26.B.2, any receiving vessel used during a tank cleaning operation shall either be bottom loaded or shall be loaded by submerged fill pipe. Any vapors emitted from such vessels during a tank degassing operation shall be controlled with an air pollution control device as required by Rule 74.26.B.1.b. As defined in Rule 74.26.F.14, a receiving vessel is a vessel used to receive liquids or sludge material removed from an ROC liquid storage tank during a tank degassing operation.
3. Pursuant to Rule 74.26.B.3, except during an emergency, the District Enforcement Section shall be notified verbally or in writing at least 48 hours prior to starting any tank degassing operation. Such notification shall include an identification of the tank(s) to be degassed and the air pollution control method employed. If a tank degassing operation was required due to an emergency, the District Enforcement Section shall be notified as soon as reasonably possible but no later than four hours after completion of the operation. An emergency is defined as an unplanned and unexpected event that, if not immediately attended to, presents a safety or public health hazard or an unreasonable financial burden.
4. In order to demonstrate compliance for air pollution control devices used to comply with Rule 74.26.B, operator shall record:
 - a. The vapor concentration in parts per million (ppm) and gas flow rate in cubic feet per minute (cfm) entering and exiting the device (except for a flare) upon beginning use of the device and every thirty minutes thereafter. The instrument used to measure vapor concentration shall meet the specifications of EPA Method 21, and

- b. The tank's vapor concentrations determined in accordance with Rule 74.26.E.3, and
 - c. If a refrigerated condenser is used, permittee shall record the condenser temperature in degrees Fahrenheit upon beginning use of the condenser and every thirty minutes thereafter. These records shall be maintained and shall be submitted to the District upon request.
5. Pursuant to Rule 74.26.D.3, any person claiming an exemption for a storage tank based on mRVP shall provide records that demonstrate that the liquid stored in the tank has a mRVP less than 3.4 psi absolute, as determined by ASTM Method D 323-82.
 6. Pursuant to Rule 74.26.E.2, methods for determining vapor destruction or removal efficiency include vapor flow through the pipes, measured using EPA Method 2A; and the vapor concentration entering and exiting the device, measured using EPA Method 25A. This testing shall be performed upon District request.
 7. Pursuant to Rule 74.26.E.3, the monitoring instrument used to measure the tank vapor concentration specified in Subsection B.1.b shall meet the specifications of EPA Method 21 and shall contain a probe inlet located one foot above the bottom of the tank or one foot above the surface of any sludge material on the bottom of the tank. For upright, cylindrical aboveground tanks, the probe inlet shall be (1) located at least 2 feet away from the inner surface of the tank wall and (2) if samples are withdrawn from a manhole, inserted in an opening of no more than one inch diameter on a flexible or inflexible material that is impermeable to reactive organic compound (ROC) vapors, secured over the manhole.
 8. In order to comply with the above conditions, permittee shall insure that any tank degassing subcontractor utilized has a valid APCD Permit to Operate for portable tank degassing emission control equipment and that the control equipment complies with Rule 74.26, in accordance with Rule 74.26.E (Test Methods) when necessary.
 9. Pursuant to Rule 74.26.C.2, the provisions of Section B of Rule 74.26 shall not apply to in-service tanks undergoing maintenance, including but not limited to repair of regulators, fittings, deck components, hatches, valves, flame arrestors, or compressors, or any leaks found pursuant to the operator inspection requirements in Rule 74.10, provided that (1) the operation will take no longer than 24 hours to complete and (2) the maintenance operation does not require the complete draining of product from the tank.

**Ventura County Air Pollution Control District
Applicable Requirements for Soil Aeration Operations
Rule 74.29, Soil Decontamination Operations**

**Rule 74.29, "Soil Decontamination Operations"
Adopted 04/08/08, Federally Enforceable**

Applicability:

This attachment applies to short-term activities involving soils that contain gasoline, diesel fuel, or jet fuel. Rule 74.29 does not apply to soil that contains only crude oil or was contaminated by a leaking storage tank used in an agricultural operation engaged in the growing of crops or the raising of fowl or animals.

Specifically, this attachment applies to the aeration of soil that contains gasoline, diesel fuel, or jet fuel. Aeration is defined as the exposure of excavated soil, containing diesel fuel, gasoline, or jet fuel, to the atmosphere without the use of air pollution control equipment or vapor extraction, bioremediation, or bioventing system.

Remediation equipment, such as a vapor extraction system, bioremediation system, or bioventing system, for contaminated soil requires an APCD permit. Rule 74.29 requirements for such remediation equipment would be addressed in another permit attachment, if applicable. As detailed in APCD Rule 23.F.23, any soil aeration project exempt from the soil aeration limit in Rule 74.29 pursuant to Subsection C.1 or C.2 of Rule 74.29 is exempt from the requirement to obtain a permit for the soil aeration project. Also, pursuant to APCD Rule 23.F.24, any soil remediation project where collected vapors are not emitted to the atmosphere by any means is exempt from the requirement to obtain a permit.

Conditions:

1. Pursuant to Rule 74.29.B.1.a, no person shall cause or allow the aeration of soil that contains gasoline, diesel fuel, or jet fuel if such aeration emits reactive organic compounds (ROC) as measured by a certified vapor analyzer, in excess of 50 parts per million by volume (ppmv) above background, as hexane, except nonrepeatable momentary readings. In determining compliance, a portion of soil measuring three inches in depth and no less than six inches in diameter shall be removed from the soil surface and the probe inlet shall be placed near the center of the resulting hole, level with the soil surface surrounding the hole.

For each soil decontamination operation where soil aeration occurs, the permittee shall determine compliance with Rule 74.29.B.1.a on a weekly basis as detailed above. A dated record of these measurements shall be maintained at the facility and submitted to the District upon request.

2. Pursuant to Rule 74.29.B.1.b, no person shall cause or allow the aeration of soil that contains gasoline, diesel fuel, or jet fuel if such aeration causes a nuisance, as defined in the California Health and Safety Code Section 41700 and APCD Rule 51, "Nuisance." In addition, offsite aeration is prohibited.
3. Pursuant to Rule 74.29.B.2, no person shall excavate an underground storage tank and/or transfer piping currently or previously used to store an applicable compound, or excavate or grade soil containing an applicable compound, unless ROC emissions are monitored with a certified organic vapor analyzer at least once every 15 minutes during the excavation period commencing at the beginning of excavation or grading. Soil with emission measurements in excess of 50 parts per million by volume (ppmv), as hexane, a shall be considered contaminated.

During excavation, all inactive exposed contaminated soil surfaces shall be treated with a vapor suppressant or covered with continuous heavy duty plastic sheeting (4 mil or greater) or other covering to minimize emissions of ROC to the atmosphere. Covering shall be in good condition, overlapped at the seams, and securely anchored to minimize headspace where vapors may accumulate.

4. Pursuant to Rule 74.29.B.5, the owner or operator of any applicable underground storage tank shall notify the District Compliance Division at least 24 hours prior to the beginning the excavation of the said storage tank and/or transfer piping.
5. Pursuant to Rule 74.29.B.6, contaminated soil in active storage piles shall be kept visibly moist by water spray, treated with a vapor suppressant, or covered with continuous heavy duty plastic sheeting (4 mil or greater) or other covering to minimize emissions of ROC to the atmosphere. Covering shall be in good condition, overlapped at the seams, and securely anchored to minimize headspace where vapors may accumulate. For any active storage pile, the surface area not covered by plastic sheeting or other covering shall not exceed 6,000 square feet. An "active" storage pile is defined as a worksite to which soil is currently being added or from which soil is being currently being removed. Activity must occur within one hour to be current.
6. Pursuant to Rule 74.29.B.7, contaminated soil in inactive storage piles shall be with covered with continuous heavy duty plastic sheeting (4 mil or greater) or other covering to minimize emissions to the atmosphere. The covering shall be in good condition, overlapped at the seams, and securely anchored to minimize headspace where vapors may accumulate.
7. Pursuant to Rule 74.29.B.8, if not removed within 30 days of excavation, on-site treatment to remove contamination from contaminated soil at an excavation or grading site shall be initiated. The treatment of contaminated soil shall be subject to all applicable District Rules and Regulations. This includes, but is not limited to,

compliance with Rule 10, "Permits Required," and Rule 51, "Nuisance."

8. Pursuant to Rule 74.29.B.9, trucks used to transport contaminated soil must meet the following requirements:
 - a. The truck and trailer shall be tarped prior to leaving the site. Contaminated material shall not be visible beyond the tarp and shall not extend above the sides or rear of the truck or trailer; and
 - b. The exterior of the truck, trailer and tires shall be cleaned prior to leaving the site.
9. Pursuant to Rule 74.29.C.2, the soil aeration requirements of Rule 74.29.B.1.a shall not apply to:
 - a. Soil excavation activities necessary for the removal of in-situ soil such as in the removal of an underground storage tank, pipe or piping system, provided the exposed soil is covered as specified in Condition No. 6 while inactive; or
 - b. Soil moving, loading, or transport activities performed for the sole purpose of complying with local, state, or federal laws, provided the soil is handled in accordance with such laws; or
 - c. Soil excavation or handling occurring as a result of an emergency as declared by an authorized health officer, agricultural commissioner, fire protection officer, or other authorized agency officer. Whenever possible, the District Compliance Division shall be notified prior to commencing such excavation; or
 - d. Any soil aeration project involving less than 1 cubic yard of contaminated soil; or
 - e. Situations where the soil contamination which resulted from a spill or release of less than five (5) gallons of diesel fuel, jet fuel, or gasoline; or
 - f. Contaminated soil used as daily cover at permitted Class III Solid Waste Disposal Sites if such soils do not have a gasoline concentration exceeding 100 parts per million by weight (ppmw) or a diesel fuel concentration exceeding 1,000 ppmw, as determined by the method specified in Rule 74.29.F.1. Daily cover is defined as soil that is applied on a daily basis or less frequently as a covering over landfill waste.

The permittee shall maintain records of the gasoline concentration and diesel fuel concentration of any contaminated soil used as daily cover that need to qualify for this exemption.

10. Pursuant to Rule 74.29.F.1, the percent by weight of contaminant in soil samples shall be determined by EPA Method 8015B. Samples shall be introduced using Method 5035 (Purge and Trap) and shall be taken in accordance with the Los Angeles Regional Water Quality Control Board's guidelines for contaminated soil sampling. Standards shall be the same as the contaminant believed to be in the soil. If the soil is contaminated with methanol 85 (M85) the standard used shall be M85.
11. Pursuant to Rule 74.29.F.3, the ROC concentration measurements required in Subsections B.1 and B.2 of the rule (Condition Nos. 1 – 3 above) shall be made using an organic vapor analyzer certified according to the requirements of EPA Method 21.
12. Pursuant to Rule 74.29.D, for any soil aeration project subject to Rule 74.29, the permittee shall record each date that the soil was disturbed and the quantity of soil disturbed on each date. These records shall be maintained at the facility and submitted to the District upon request.
13. For any soil decontamination project subject to Rule 74.29, other than a soil aeration project, the following information shall be made available to the District upon request:
 - a. All dates that soil was disturbed and the quantity of soil disturbed on each date.
 - b. Reasons for excavation or grading.
 - c. Cause of VOC soil contamination and history of the site.
 - d. Description of tanks or piping associated with the soil contamination.
 - e. Description of mitigation measures employed for dust, odors and ROC emissions.
 - f. Details of treatment and/or disposal of ROC contaminated soil, including the ultimate receptor.
 - g. Description of monitoring equipment and techniques.
 - h. All ROC emission measurements shall be recorded on a continuous permanent strip-chart or in a format approved by the Air Pollution Control Officer (APCO).
 - i. A map showing the facility layout, property line, and surrounding area up to 2500 feet away, and including any schools, residential areas or other sensitive receptors such as hospitals or locations where children or elderly people live or work.
14. The permittee shall monitor each soil aeration operation or underground gasoline storage tank excavation operation to ensure that compliance with Rule 74.29.B.1 and/or

74.29.B.2 is being maintained. This monitoring requirement shall include ensuring that proper operation requirements are being met and shall include the recordkeeping required above.

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11. GENERAL PERMIT CONDITIONS

This section contains general Part 70 permit conditions and general APCD permit to operate conditions. The general Part 70 permit conditions are associated with general federal requirements that apply to all Title V facilities. These conditions are based on APCD Rules 8, 30, 32, and 33, and 40 CFR Part 70.

The general permit to operate conditions are associated with general District requirements that apply to all operating Title V facilities. These conditions are based on APCD Rules 19, 20, 22, and 27.

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**Ventura County Air Pollution Control District
General Part 70 Permit Conditions**

1. The permittee shall comply with all federally-enforceable conditions of the Part 70 permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of an application for reissuance of the permit. (40 CFR 70.6(a)(6)(i), APCD Rule 33.3.B.1)
2. The permittee shall continue to comply with all the applicable requirements with which the company has certified that it is already in compliance. The permittee shall comply in a timely manner with applicable requirements that become effective during the permit term of this permit.
3. The permittee shall promptly report deviations from Part 70 permit requirements, including those attributable to upset conditions as defined in the Part 70 permit, the probable cause of the deviations, and any corrective actions or preventive measures taken. Promptly is defined as no later than four (4) hours after its detection by such owner or operator, or his agents or employees. (40 CFR 70.6(a)(3)(iii)(B), APCD Rule 33.3.A.3, APCD Rule 32.B.1)
4. The need to halt or reduce activity is not a defense. It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Part 70 permit. (40 CFR 70.6(a)(6)(ii), APCD Rule 33.3.B.2)
5. All applicable records, monitoring data, and support information shall be maintained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 permit. All applicable reports shall be submitted to the District every 6 months and shall be certified by a responsible official. Such reports shall identify any deviations from Part 70 permit conditions. (40 CFR 70.6(a)(3)(ii)(B), 40 CFR 70.6(a)(3)(iii)(A), APCD Rule 33.3.A.3)
6. The permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 permit or to determine compliance with the Part 70 permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the Part 70 permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator of the EPA along with a claim of confidentiality. (40 CFR 70.6(a)(6)(v), APCD Rule 33.3.B.5)

7. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the District or an authorized representative to perform the following:
 - a. Enter upon the permittee's premises where a Part 70 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the Part 70 permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the Part 70 permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the Part 70 permit; and
 - d. As authorized by the federal Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the Part 70 permit or applicable requirements.

(40 CFR 70.6(c)(2), APCD Rule 8, APCD Rule 33.3.B.7)

8. The Part 70 permit may be modified, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (40 CFR 70.6(a)(6)(iii), APCD Rule 33.3.B.3)
9. A Part 70 permit shall be reopened under the following conditions:
 - a. Additional applicable requirements under the federal Clean Air Act become applicable to the facility with a remaining Part 70 permit term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the Part 70 permit is due to expire, unless the original Part 70 permit or any of its terms and conditions has been extended pursuant to APCD Rule 33.6.D;
 - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator of the EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 permit;

- c. The District or EPA determines that the Part 70 permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 permit; or
- d. The Administrator of the EPA or the District determines that the Part 70 permit must be revised or revoked to assure compliance with the applicable requirements.

(40 CFR 70.7(f), APCD Rule 33.8.A)

- 10. All fees required by District Regulation III, Fees, shall be paid on a timely basis as requested by the District. Notwithstanding the term of the Part 70 permit, if the permittee fails to pay the annual renewal fees required pursuant to APCD Rule 42.H within the time period specified in APCD Rule 30, the Part 70 permit will be void. (40 CFR 70.6(a)(7), APCD Rule 30, APCD Rule 33.3.B.6)
- 11. The Part 70 permit does not convey any property rights of any sort, or any exclusive privilege. (40 CFR 70.6(a)(6)(iv), APCD Rule 33.3.B.4)
- 12. The provisions of this Part 70 permit shall be severable, and in the event of any challenge to any portion of the permit, or if any portion is held invalid, the remaining permit conditions shall remain valid and in force. (40 CFR 70.6(a)(5), APCD Rule 33.3.B.8)
- 13. An application for reissuance of this Part 70 Permit shall be submitted no more than 18 months prior to the expiration date and no less than 6 months prior to the expiration date as stated on this permit. The application shall be subject to the same procedural requirements, including those for public participation and EPA review, that apply to initial Part 70 permit issuance. (40 CFR 70.5(a)(1)(iii), 40 CFR 70.7(c)(1)(i), APCD Rule 33.6.B)
- 14. Any Part 70 application and any document, including reports, schedule of compliance progress reports, and compliance certification, required by this Part 70 permit shall be certified by a responsible official. The certification shall state that, based on information and belief formed after a reasonable inquiry, the statements and information in the document are true, accurate, and complete (40 CFR 70.5(d), APCD Rule 33.9.C)
- 15. Permittee must submit certification of compliance with all applicable requirements and all Part 70 permit conditions. A compliance certification shall be submitted with any Part 70 permit application and annually, on the anniversary date of the Part 70 permit, or on a more frequent schedule if required by an applicable requirement or permit condition.

This compliance certification shall identify each applicable requirement or condition of the Part 70 permit, the compliance status of the stationary source, whether the compliance

was continuous or intermittent since the last certification, and the method(s) used to determine compliance. In addition, the certification shall indicate the stationary source's compliance status with any applicable enhanced monitoring and compliance certification requirement of the federal Clean Air Act. A copy of each compliance certification shall be submitted to EPA Region IX. (40 CFR 70.5(c)(9), 40 CFR 70.6(c)(5), APCD Rule 33.3.A.9, APCD Rule 33.9.B)

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**Ventura County Air Pollution Control District
General Permit to Operate Conditions**

1. Within 30 days after receipt of a permit to operate, the permittee may petition the Hearing Board, in writing, to review any new or modified condition on the permit. (APCD Rule 22)
2. This permit to operate, or a copy, shall be posted reasonably close to the subject equipment and shall be readily accessible to inspection personnel from the District. Posting a copy of the "Permitted Equipment and Applicable Requirements Table" contained in Section No. 2 will fulfill this requirement if the entire permit to operate is readily available at another location at the stationary source. (APCD Rule 19)
3. This permit to operate is not transferable from one location to another unless the equipment is specifically listed as being portable. (APCD Rule 20)
4. If, within a reasonable amount of time, any permittee refuses to furnish information requested by the District, the District may suspend this permit to operate. The permittee will be informed, in writing, of the permit suspension and the reasons for the suspension. (APCD Rule 27)

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**Ventura County Air Pollution Control District
Permit Shield - New Source Performance Standards
Part 70 Permit No. 00012**

40 CFR Part 60, Subpart J, “Standards of Performance for Petroleum Refineries”

40 CFR Part 60, Subpart UU, “Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture”

40 CFR Part 60, Subpart GGG, “Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries”

40 CFR Part 60, Subpart QQQ, “Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems”

Permit Shield:

The New Source Performance Standards listed above have been reviewed and it has been determined that they are not applicable to this stationary source. Subpart J, Subpart GGG, and Subpart QQQ apply to affected facilities located at petroleum refineries. Subpart UU applies to affected facilities at asphalt processing plants, petroleum refineries, and asphalt roofing plants. This stationary source is not a petroleum refinery, asphalt roofing plant, or asphalt processing plant as defined in these New Source Performance Standards, and therefore these standards do not apply to this stationary source.

This stationary source is primarily a crude oil production facility. Steam and petroleum diluent are injected into heavy crude oil wells. The wells then produce a mixture of heavy crude oil, natural gas, diluent, and water. The mixture is initially separated by gravity, aided by heat. In order to recover the diluent, final separation is done in an atmospheric distillation tower.

The heavy crude oil is then sold as various grades of asphalt, and the diluent is recycled back into the oil wells. To balance the process on a seasonal basis, diluent is sold or purchased as necessary.

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**Ventura County Air Pollution Control District
Permit Shield - New Source Performance Standards
Part 70 Permit No. 00012**

40 CFR Part 60, Subpart Dc, “Standards of Performance for Small Industrial - Commercial - Institutional Steam Generating Units”

Permit Shield:

The New Source Performance Standard listed above has been reviewed and it has been determined that it is not applicable to this stationary source. The following discussion details the determination of this permit shield for specific emission units at the stationary source. All of the units below burn natural gas as the primary fuel and burn fuel oil only during natural gas curtailment.

Six (6) 20.0 MMBTU/Hr Steam Generators (Unit Nos. 0, 1, 2, 3, 4, 5)

Five of these six steam generators were originally constructed prior to June 9, 1989. Authority to Construct No. 0010-100, issued on March 25, 1991, allowed for modifications to each of these steam generators to meet the emission limitations of Rule 74.15, “Boilers, Steam Generators, and Process Heaters”. Pursuant to 40 CFR Part 60.14.e.5, this change did not fit the definition of a modification subject to New Source Performance Standards since this was “the addition or use of any system or device whose primary function is the reduction of air pollutants.” The 20 MMBTU/hr Steam Generator No. 0 was installed after July 9, 1989; however, the unit operates on natural gas or a mixture of natural gas and produced gas. There are no applicable requirements in the Subpart for units operated on natural gas. This includes recordkeeping requirements.

One (1) 20.0 MMBTU/Hr Erie City Boiler

This boiler was originally constructed prior to June 9, 1989. Authority to Construct No. 0012-110, issued on August 13, 1990, allowed for modifications to this boiler to meet the emission limitations of Rule 74.15, “Boilers, Steam Generators, and Process Heaters”. Pursuant to 40 CFR Part 60.14.e.5, this change did not fit the definition of a modification subject to New Source Performance Standards since this was “the addition or use of any system or device whose primary function is the reduction of air pollutants.”

One (1) 20.0 MMBTU/Hr Natco Crude Oil Heater

This crude oil heater was originally constructed after June 9, 1989. Authority to Construct No. 0012-110, issued on August 13, 1990, allowed for the installation of this unit as a replacement for two existing units as a strategy to meet the emission limitations of Rule 74.15, “Boilers, Steam Generators, and Process Heaters”. The Natco Crude Oil Heater does not fit the definition of a steam generating unit as detailed in 40 CFR Part 60.41c. This unit does not heat water or any other heat transfer medium. Nor is it a process heater that heats a material to initiate or

promote a chemical reaction. It is, rather, a process heater that heats a mixture of heavy crude oil and diluent to promote their physical separation.

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**Ventura County Air Pollution Control District
Standards of Performance (NSPS) for
Crude Oil and Natural Gas Production, Transmission and Distribution**

40 CFR Part 60, Subpart OOOO, “Standards of Performance (NSPS) for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015”

Applicability:

This NSPS was replaced by 40 CFR Part 60, Subpart OOOOa that now applies to affected oil and gas facilities after September 18, 2015.

This NSPS applies to all well completions, pneumatic controllers, equipment leaks from natural gas processing plants, reciprocating compressors, centrifugal compressors and storage vessels which are constructed, modified or reconstructed after August 23, 2011, and on or before September 18, 2015, as discussed in more detail below. Well completions subject to the NSPS are limited to the flowback period following hydraulic fracturing operations at an applicable gas well. These applicable completions include those conducted at newly drilled and fractured gas wells, as well as completions conducted following refracturing operations that may occur at various times over the life of the gas well. When a gas well is refractured, the applicability of this NSPS does not by itself trigger applicability beyond the well head to other ancillary components that may be at the well site such as existing storage vessels, compressors, pneumatic controllers, process vessels, separators, dehydrators or any other components or apparatus. Note that the NSPS does not apply to gas wells located on offshore oil platforms in Ventura County. This document summarizes the requirements of the NSPS and is not intended to supersede or conflict with the requirements of the NSPS.

Note that the issuance of this NSPS now includes, incorporates, and / or revises the requirements of 40 CFR Part 60 Subpart KKK, “Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants”, and 40 CFR Part 60 Subpart LLL, “Standards of Performance for Onshore Natural Gas Processing: SO₂ Emissions”. These NSPS now each have sunset dates of August 23, 2011 and their requirements are now contained in 40 CFR Part 60, Subpart OOOO, “Standards of Performance (NSPS) for Crude Oil and Natural Gas Production, Transmission and Distribution”.

Conditions:

1. Gas wells undergoing hydraulic fracturing subject to this NSPS shall comply with Section 60.5375. A gas well or natural gas well is defined as an onshore well drilled principally for production of natural gas. The NSPS requires the use of reduced emissions completions (REC) also known as green completions.

The drilling of all new oil wells and all new gas wells requires a Ventura County APCD Authority to Construct. In addition, an Authority to Construct shall be obtained prior to refracturing an existing gas well.

2. Centrifugal compressors subject to this NSPS shall comply with Section 60.5380. A centrifugal compressor is defined as any machine for raising the pressure of a natural gas by drawing in low pressure natural gas and discharging significantly higher pressure natural gas by means of mechanical rotating vanes or impellers. Screw, sliding vane, and liquid ring compressors are not centrifugal compressors as defined in this NSPS. The NSPS requires the operators of affected centrifugal compressors to reduce VOC emissions from each centrifugal compressor wet seal fluid degassing system by 95.0 percent or greater. Compressors located past the point of custody transfer in the gas transmission and storage segments are not covered by this NSPS. A compressor located at a well site, or an adjacent well site and servicing more than one well site, is not covered by this NSPS.

The Ventura County APCD does not require permits for natural gas compressors, but does require permits for an internal combustion engine (in lieu of an electric motor) powering a natural gas compressor (Rule 23.F.18). Therefore, this condition authorizes the installation of the equipment necessary to comply with these centrifugal compressor requirements provided that the permittee comply with all the requirements of Section 60.5380, including the required notification, recordkeeping and reporting requirements.

3. Reciprocating compressors subject to this NSPS shall comply with Section 60.5385. A reciprocating compressor is defined as a piece of equipment that increases the pressure of a process gas by positive displacement, employing linear movement of a drive shaft. The NSPS requires the operators of affected reciprocating compressors to replace the rod packing every 26,000 hours or 36 months from the date of initial startup of the reciprocating compressor affected facility. Compressors located past the point of custody transfer in the gas transmission and storage segments are not covered by this NSPS. A compressor located at a well site, or an adjacent well site and servicing more than one well site, is not covered by this NSPS.

The Ventura County APCD does not require permits for natural gas compressors, but does require permits for an internal combustion engine (in lieu of an electric motor) powering a natural gas compressor (Rule 23.F.18). Therefore, this condition authorizes the work necessary to comply with these reciprocating compressor requirements provided that the permittee comply with all the requirements of Section 60.5385, including the required notification, recordkeeping and reporting requirements.

4. Pneumatic controllers subject to this NSPS shall comply with Section 60.5390. A pneumatic controller is defined as an automated instrument used for maintaining a

process condition such as liquid level, pressure, delta-pressure and temperature. The requirements apply to natural gas-driven pneumatic controllers located (a) in the oil production segment between the wellhead and the point of custody transfer to an oil pipeline; or (b) in the natural gas production segment between the wellhead and the point at which the gas enters the transmission and storage segment. This NSPS requires each pneumatic controller affected facility at a natural gas processing plant to have a natural gas bleed rate of zero standard cubic feet per hour. Each pneumatic controller affected facility between the wellhead and a natural gas processing plant, or between the wellhead and the point of custody transfer to an oil pipeline, must have a natural gas bleed rate of less than or equal to 6 standard cubic feet per hour. Note that a natural gas processing plant is defined as any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both. A Joule-Thompson valve, a dew point suppression valve, or an isolated or stand-alone Joule-Thompson skid is not a natural gas processing plant.

The Ventura County APCD does not require permits for the installation and operation of pneumatic controllers and other components such as valves and flanges. Therefore, this condition authorizes the work necessary to comply with these pneumatic controller requirements provided that the permittee comply with all the requirements of Section 60.5390, including the required notification, recordkeeping and reporting requirements.

5. Storage vessels subject to this NSPS shall comply with Section 60.5395. A storage vessel is defined as a unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provides structural support and is designed to contain an accumulation of liquids or other materials. Note that pressure vessels designed to operate in excess of 204.9 kilopascals (29.7 psi) and without emissions to the atmosphere are not considered to be storage vessels. Also, process vessels such as surge control vessels, bottoms receivers, and knockout vessels are not considered to be process vessels.

The NSPS requires that individual storage vessels with VOC emissions equal to or greater than 6 tons per year achieve at least 95.0 percent reduction in VOC emissions. These requirements do not apply to storage vessels subject to and controlled in accordance with the requirements for storage vessels in 40 CFR Part 60, Subpart Kb, or 40 CFR Part 63, Subparts G, CC, HH, or WW.

The Ventura County APCD does require permits for the installation and operation of storage vessels such as crude oil storage tanks, wash tanks, and produced water storage tanks. In addition, these tanks must comply with the vapor recovery requirements of Rule 71.1, "Crude Oil Production and Separation". If a tank that complies with Rule 71.1 has VOC emissions of 6 tons per year or more, the permittee shall apply for, and obtain, an APCD Authority to Construct for the equipment necessary to comply with Section 60.5395 of the NSPS.

6. All process units, except compressors, located at an onshore natural gas processing plant subject to this NSPS shall comply with Section 60.5400. A process unit means components assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products or other operations associated with the processing of natural gas products.

The NSPS requires a leak detection and repair program for components such as pressure relief devices, pumps and valves that reflects the procedures and leak thresholds established in 40 CFR Part 60, Subpart VVa, the NSPS for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (that is, this NSPS OOOO references out to NSPS VVa). For certain components, a leak is defined as 500 ppm or greater and a first attempt at a repair must be made no later than 5 calendar days after a leak is detected.

The Ventura County APCD does not require permits for the installation and operation of components such as pressure relief devices, pumps, valves and flanges. Therefore, this condition authorizes any work necessary to comply with these leak detection and repair requirements provided that the permittee comply with all the requirements of Section 60.5400, including the required notification, recordkeeping and reporting requirements. Any onshore natural gas processing plant at this facility subject to this NSPS will be specifically addressed elsewhere in this permit, as applicable.

7. Sweetening units at onshore natural gas processing plants subject to this NSPS shall comply with Section 60.5405. A sweetening unit is defined as a process device that removes hydrogen sulfide and / or carbon dioxide from the sour natural gas stream. To qualify as a sweetening unit, there must be sulfur recovery technology with a liquid sulfur accumulation rate. These requirements do not apply to sweetening units located on offshore oil platforms in Ventura County. The requirements also do not apply to devices that remove hydrogen sulfide or carbon dioxide that use replaceable media or units that use membrane separation technology.

The NSPS requires that the sweetening unit achieve a minimum SO₂ reduction efficiency that varies from approximately 74.0% to 99.9% depending on the hydrogen sulfide content of the acid gas and the sulfur feed rate.

The Ventura County APCD does require an Authority to Construct for the installation of a sweetening unit at both onshore natural gas plants and offshore natural gas plants. Any sweetening unit at this facility subject to this NSPS will be specifically addressed elsewhere in this permit, as applicable.

**Ventura County Air Pollution Control District
Standards of Performance (NSPS) for
Crude Oil and Natural Gas Facilities**

40 CFR Part 60, Subpart OOOOa, “Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015”

Applicability:

This NSPS establishes emission standards and compliance schedules for the control of the pollutant greenhouse gases (GHG). The greenhouse gas standard in this NSPS is in the form of a limitation on emissions of methane from affected facilities in the crude oil and natural gas source category that commence construction, modification, or reconstruction after September 18, 2015. This NSPS also establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO₂) emissions from affected facilities in the crude oil and natural gas source category that commence construction, modification or reconstruction after September 18, 2015. The effective date of the NSPS is August 2, 2016.

This NSPS applies to all onshore well completions, centrifugal compressors, reciprocating compressors, pneumatic controllers, storage vessels, process units for the extraction or fractionation of natural gas liquids from field gas, sweetening units, pneumatic pumps, and fugitive emissions from well sites and compressor stations which are constructed, modified or reconstructed after September 18, 2015, as discussed in more detail below. Note that this NSPS does not apply to offshore oil platforms in Ventura County.

Well completions subject to the NSPS are limited to the flowback period following hydraulic fracturing operations at an applicable oil or gas well. These applicable well completions include those conducted at newly drilled and fractured wells, as well as completions conducted following refracturing operations that may occur at various times over the life of the well.

Note that the issuance of this NSPS now includes, incorporates, and / or revises the requirements of 40 CFR Part 60, Subpart OOOO, “Standards of Performance (NSPS) for Crude Oil and Natural Gas Production, Transmission and Distribution”. 40 CFR Part 60, Subpart OOOO now has an effective date of August 23, 2011 to September 18, 2015 and its requirements are now contained in 40 CFR Part 60, Subpart OOOOa. This document summarizes the requirements of the NSPS and is not intended to supersede or conflict with the requirements of the NSPS.

Conditions:

1. Wells undergoing hydraulic fracturing or hydraulic refracturing subject to this NSPS shall comply with Section 60.5375a. A well is defined as an onshore well drilled for the purpose of producing oil or natural gas, or a well into which fluids are injected. During

the flowback period following hydraulic fracturing or refracturing, the NSPS requires the recovery of flowback liquids and the control of flowback gas. Note that the NSPS has specific requirements for wildcat wells and delineation wells, non-wildcat low pressure gas wells or non-delineation low pressure gas wells, and wells with less than 300 scf of gas per stock tank barrel of oil produced.

The drilling of all new oil wells and all new gas wells requires a Ventura County APCD Authority to Construct. In addition, an Authority to Construct shall be obtained prior to refracturing an existing oil or gas well.

2. Centrifugal compressors subject to this NSPS shall comply with Section 60.5380a. A centrifugal compressor is defined as any machine for raising the pressure of a natural gas by drawing in low pressure natural gas and discharging significantly higher pressure natural gas by means of mechanical rotating vanes or impellers. Screw, sliding vane, and liquid ring compressors are not centrifugal compressors as defined in this NSPS. The NSPS requires the operators of affected centrifugal compressors to reduce methane and VOC emissions from each centrifugal compressor wet seal fluid degassing system by 95.0 percent or greater. Compressors located at or past the point of custody transfer are not covered by this NSPS. A centrifugal compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this NSPS.

The Ventura County APCD does not require permits for natural gas compressors, but does require permits for an internal combustion engine (in lieu of an electric motor) powering a natural gas compressor (Rule 23.F.18). Therefore, this condition authorizes the installation of the equipment necessary to comply with these centrifugal compressor requirements provided that the permittee comply with all the requirements of Section 60.5380a, including the required notification, recordkeeping and reporting requirements.

3. Reciprocating compressors subject to this NSPS shall comply with Section 60.5385a. A reciprocating compressor is defined as a piece of equipment that increases the pressure of a process gas by positive displacement, employing linear movement of a drive shaft. The NSPS requires the operators of affected reciprocating compressors to replace the rod packing every 26,000 hours or 36 months from the date of initial startup, or last rod packing replacement, of the reciprocating compressor affected facility. As an alternative to rod packing replacement, the NSPS requires that operators collect the methane and VOC emissions from the rod packing using a rod packing emissions collection system that operates under negative pressure and route the rod packing emissions to a process through a closed vent system. Compressors located at or past the point of custody transfer are not covered by this NSPS. A compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this NSPS.

The Ventura County APCD does not require permits for natural gas compressors, but does require permits for an internal combustion engine (in lieu of an electric motor) powering a natural gas compressor (Rule 23.F.18). Therefore, this condition authorizes the work necessary to comply with these reciprocating compressor requirements provided that the permittee comply with all the requirements of Section 60.5385a, including the required notification, recordkeeping and reporting requirements.

4. Pneumatic controllers subject to this NSPS shall comply with Section 60.5390a. A pneumatic controller is defined as an automated instrument used for maintaining a process condition such as liquid level, pressure, delta-pressure and temperature. This NSPS requires each pneumatic controller affected facility at a natural gas processing plant to have a natural gas bleed rate of zero standard cubic feet per hour. Each pneumatic controller affected facility, at a location other than at a natural gas processing plant, must have a natural gas bleed rate of less than or equal to 6 standard cubic feet per hour. Note that a natural gas processing plant is defined as any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both. A Joule-Thompson valve, a dew point suppression valve, or an isolated or stand-alone Joule-Thompson skid is not a natural gas processing plant.

These requirements do not apply if it is determined that the use of a pneumatic controller affected facility with a bleed rate greater than the applicable standard is required based on functional needs, including but not limited to response time, safety and positive actuation. However, an applicable pneumatic controller must be tagged with the month and year of installation, reconstruction or modification, and identification information that allows traceability to the records for that pneumatic controller.

The Ventura County APCD does not require permits for the installation and operation of pneumatic controllers and other components such as valves and flanges (Rule 23.J.9). Therefore, this condition authorizes the work necessary to comply with these pneumatic controller requirements provided that the permittee comply with all the requirements of Section 60.5390a, including the required notification, recordkeeping and reporting requirements.

5. Pneumatic pumps subject to this NSPS shall comply with Section 60.5393a. For natural gas processing plants, each pneumatic pump affected facility is a single natural gas-driven diaphragm pump. For well sites, each pneumatic pump affected facility is a single natural gas-driven diaphragm pump. A single natural gas-driven diaphragm pump that is in operation less than 90 days per calendar year is not an affected facility under this subpart provided the owner/operator keeps records of the days of operation each calendar year and submits such records to the EPA Administrator (or delegated enforcement authority) upon request.

This NSPS requires each pneumatic pump affected facility at a natural gas processing plant to have a natural gas bleed rate of zero standard cubic feet per hour. A pneumatic pump affected facility located at a well site must reduce natural gas emissions by 95.0 percent, except as provided in paragraphs (b)(3) and (4) of this section for a well site at a greenfield site, and except as provided in paragraphs (b)(3), (4) and (5) of this section for a well site not located at a greenfield site. Greenfield site is defined as a site, other than a natural gas processing plant, which is entirely new construction. Natural gas processing plants are not considered to be greenfield sites, even if they are entirely new construction.

The Ventura County APCD does not require permits for the installation and operation of pneumatic pumps and other components such as valves and flanges (Rule 23.J.9). Therefore, this condition authorizes the work necessary to comply with these pneumatic pump requirements provided that the permittee comply with all the requirements of Section 60.5393a, including the required notification, recordkeeping and reporting requirements.

6. Storage vessels subject to this NSPS shall comply with Section 60.5395a. A storage vessel is defined as a tank or other vessel that contains an accumulation of crude oil, condensate, intermediate hydrocarbon liquids, or produced water, and that is constructed primarily of non-earthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support. A well completion vessel that receives recovered liquids from a well after startup of production following flowback for a period which exceeds 60 days is considered a storage vessel under this NSPS. Note that pressure vessels designed to operate in excess of 204.9 kilopascals (29.7 psi) and without emissions to the atmosphere are not considered to be storage vessels. Also, process vessels such as surge control vessels, bottoms receivers, and knockout vessels are not considered to be storage vessels.

The NSPS requires that individual storage vessels with VOC emissions equal to or greater than 4 tons per year achieve at least 95.0 percent reduction in VOC emissions. These requirements do not apply to storage vessels subject to and controlled in accordance with the requirements for storage vessels in 40 CFR Part 60, Subpart Kb, and 40 CFR Part 63, Subparts G, CC, HH, or WW.

The Ventura County APCD does require permits for the installation and operation of storage vessels such as crude oil storage tanks, wash tanks, and produced water storage tanks. Pressure vessels without routine emissions to the atmosphere are not required to be listed on the permit. In addition, these tanks must comply with the vapor recovery requirements of Rule 71.1, "Crude Oil Production and Separation", which in most cases is more stringent than this NSPS.

7. Fugitive emissions from well sites and compressor stations, except compressors located at a well site or compressors located at an onshore natural gas processing plant, subject to

this NSPS shall comply with Section 60.5397a.

The NSPS requires a leak detection and repair program for fugitive emissions components such as valves, connectors, pressure relief devices, open-ended lines, flanges, certain covers and closed vent systems, thief hatches or other openings on a controlled storage vessel (not subject to Section 60.5395a), compressors, instruments, and meters. An emissions monitoring plan is required and emission monitoring surveys are required at least semiannually for well sites and a least quarterly for compressor stations. "Difficult-to-monitor" components must be monitored at least once per calendar year and "unsafe-to-monitor" components must be monitored on a schedule, as included in the monitoring plan.

Fugitive emissions are defined as: a) any visible emission from a fugitive emissions component observed using optical gas imaging, or b) an instrument reading 500 ppm or greater using EPA Method 21.

Each identified source of fugitive emissions shall be repaired or replaced as soon as practicable, but no later than 30 calendar days after the detection of the fugitive emissions, except as provided for specified repairs and replacements in the NSPS.

The Ventura County APCD does not require permits for the installation and operation of components subject to the fugitive emissions requirements of this NSPS. Therefore, this condition authorizes any work necessary to comply with these leak detection and repair requirements provided that the permittee comply with all the requirements of Section 60.5397a, including the monitoring, repair, replacement, recordkeeping and reporting requirements.

8. All process units, except compressors, located at an onshore natural gas processing plant subject to this NSPS shall comply with Section 60.5400a. A process unit means components assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products or other operations associated with the processing of natural gas products.

The NSPS requires a leak detection and repair program for components such as pressure relief devices, pumps and valves that reflects the procedures and leak thresholds established in 40 CFR Part 60, Subpart VVa, the NSPS for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (that is, this NSPS OOOO references out to NSPS VVa). For specified components, a leak is defined as 500 ppm or greater as measured by EPA Method 21, and a first attempt at a repair must be made no later than 5 calendar days after a leak is detected. The leak must be repaired as soon as practicable, but no later than 15 days after detection.

9. Sweetening units at onshore natural gas processing plants subject to this NSPS shall

comply with Section 60.5405a. A sweetening unit is defined as a process device that removes hydrogen sulfide and / or carbon dioxide from the sour natural gas stream. To qualify as a sweetening unit, there must be sulfur recovery technology with a liquid sulfur accumulation rate. These requirements do not apply to sweetening units located on offshore oil platforms in Ventura County. The requirements also do not apply to devices that remove hydrogen sulfide or carbon dioxide that use replaceable media or units that use membrane separation technology.

The NSPS requires that the sweetening unit achieve a minimum SO₂ reduction efficiency that varies from 74.0% to 99.9% depending on the hydrogen sulfide content of the acid gas and the sulfur feed rate.

The Ventura County APCD does require an Authority to Construct for the installation of a sweetening unit at both onshore natural gas plants and offshore natural gas plants. Any sweetening unit at this facility subject to this NSPS will be specifically addressed elsewhere in this permit, as applicable.

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12. MISCELLANEOUS FEDERAL PROGRAM CONDITIONS

This section contains miscellaneous federal program conditions that are not emission unit-specific or short-term. These federal requirements are broadly applicable requirements that apply and are enforced in the same manner for all subject emissions units or short-term activities. Permit conditions associated with these miscellaneous federal program requirements are listed in individual attachments. The attachment is identified with the label "Attachment 40CFR(Part No.) __" in the lower left corner of each attachment.

**Ventura County Air Pollution Control District
40 CFR Part 68 Applicable Requirements
Accidental Release Prevention and Risk Management Plans**

**40 CFR Part 68, "List of Regulated Substances and Thresholds for Accidental Release Prevention"
Federally-Enforceable**

Applicability:

This attachment applies to regulated substances that are contained in a process at this facility and that exceed the threshold quantity, as presented in 40 CFR Part 68.130. This regulation addresses the requirements of section 112(r) of the federal Clean Air Act as amended. Specifically, this attachment applies to a facility that has stated that a federal Risk Management Plan pursuant to section 112(r) is currently not required, but where flexibility is desired to preclude a permit reopening should 40 CFR Part 68 become an applicable requirement.

Conditions:

1. Should the stationary source, as defined in 40 CFR Part 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in Part 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR Part 70.

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**Ventura County Air Pollution Control District
40 CFR Part 82 Applicable Requirements
Protection of Stratospheric Ozone**

**40 CFR Part 82, "Protection of Stratospheric Ozone"
40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners"
40 CFR Part 82, Subpart F, "Recycling and Emissions Reduction"
Federally Enforceable (last revised 11/18/16)**

Applicability:

This attachment applies to activities conducted at this facility that involve producing, importing, exporting, or consuming of the specified controlled substances described under 40 CFR Part 82.4. Specifically, this attachment includes the requirements of 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners," and 40 CFR Part 82, Subpart F, "Recycling and Emissions Reduction."

As stated in 40 CFR Part 82.30, 40 CFR Part 82, Subpart B applies to any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner.

As stated in 40 CFR Part 82.150, 40 CFR Part 82, Subpart F applies to any person maintaining, servicing, or repairing appliances containing class I, class II, or non-exempt substitute refrigerants. This subpart also applies to persons disposing of such appliances (including small appliances and motor vehicle air conditioners), refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recovery and/or recycling equipment, approved recovery and/or recycling equipment testing organizations, and persons buying, selling, or offering to sell class I, class II, or non-exempt substitute refrigerants.

As defined in 40 CFR 82.152, *appliance* means any device which contains and uses a class I or class II substance or substitute as a refrigerant and which is used for household or commercial purposes, including any air conditioner, motor vehicle air conditioner, refrigerator, chiller, or freezer. For a system with multiple circuits, each independent circuit is considered a separate appliance. *Refrigerant* means, for purposes of this subpart, any substance, including blends and mixtures, consisting in part or whole of a class I or class II ozone-depleting substance or substitute that is used for heat transfer purposes and provides a cooling effect.

Conditions:

1. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable

requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners."

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

2. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee is subject to all of the applicable requirements as specified in 40 CFR Part 82, Subpart F, "Recycling and Emissions Reduction."

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13. PART 70 PERMIT APPLICATION PACKAGE

The Part 70 permit application, which was submitted by this facility, is included in this section for reference only and is not a part of the Part 70 permit.

During the processing of the permit application, additional information was submitted by the facility in response to District requests. This additional information is included with the application. If the applicant was asked to replace a page or a portion of the application, the original submittal is stamped "REPLACED" and the replacement page or section is placed in front of the original. The applicant and District correspondence for the Part 70 permit application is located in the District permit file for this stationary source.

EXHIBIT 7

Climate Changed

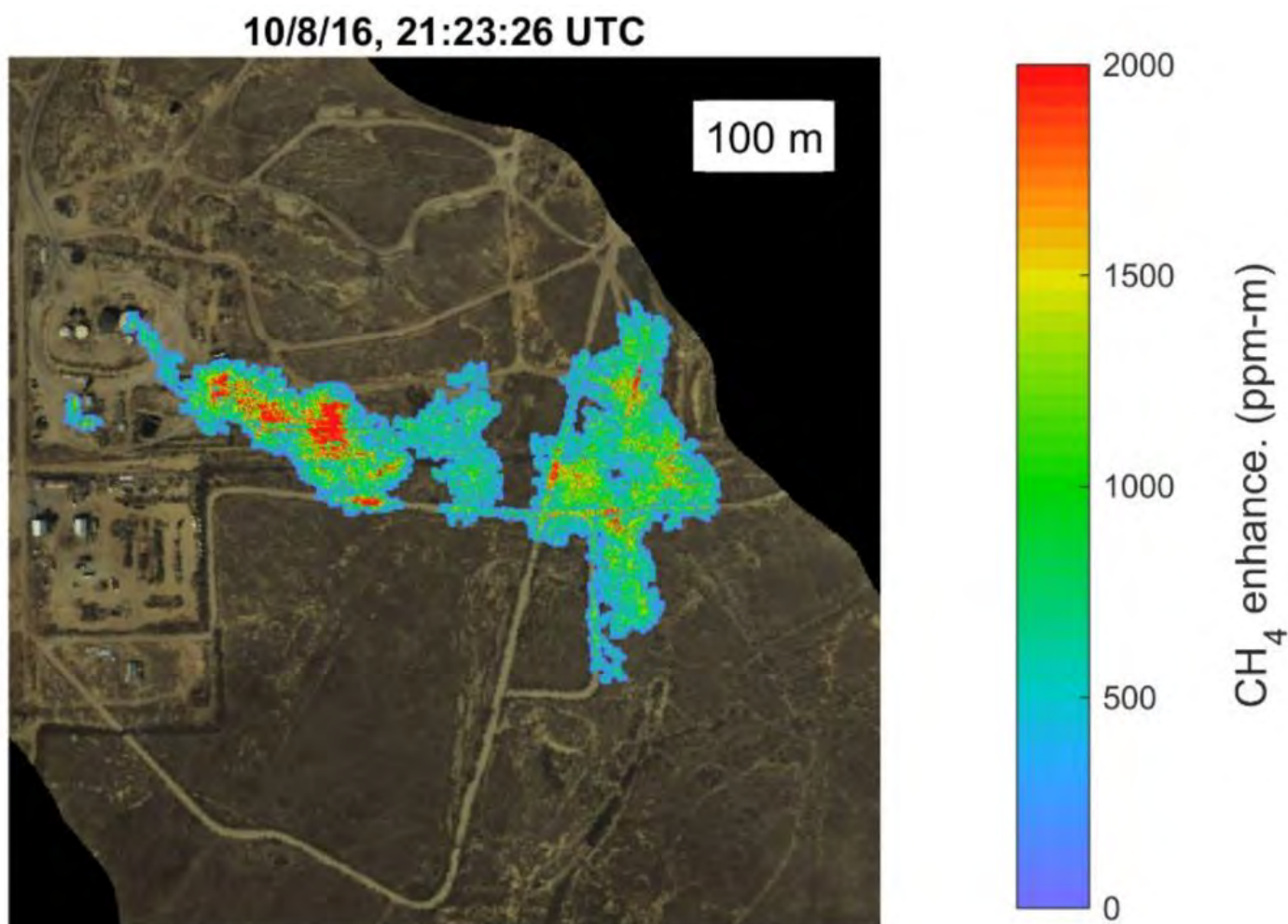
NASA Flew Gas Detectors Above California, Found 'Super Emitters'

By [Lynn Doan](#)

November 6, 2019, 1:33 PM PST

Updated on November 7, 2019, 2:01 AM PST

- ▶ A handful of sites account for most of California's methane
- ▶ Researchers published their survey findings in a Nature report



A methane plume captured at an oil field in California. *Source: California Air Resources Board*

Over the course of three years, [NASA](#) flew a plane carrying gas-imaging equipment above California and made a discovery that surprised even the state's own environmental agencies: A handful of operations are responsible for the vast majority of methane emissions.

In a report published in Nature on Wednesday, scientists estimated that 10% of the places releasing methane -- including landfills, natural gas facilities and dairy farms -- are responsible for more than half of the state's total emissions. And a fraction of the 272,000 sources surveyed - just 0.2% -- account for as much as 46%.

The report doesn't identify these "super emitters," but notes that landfills give off more methane than any other source in the state. NASA's equipment found that a subset of these landfills were the largest emitters in California and exhibited "persistent anomalous activity."

The study marks the first time anyone has ever carried out a systematic survey across California of methane, a greenhouse gas that's 25 times more potent than carbon dioxide in trapping heat and contributing to global warming. The release of methane has been a continual challenge for California, which has some of the most aggressive goals in the nation for curbing emissions and slowing the impacts of climate change.

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NASA's aircraft made dozens of flights across 10,000 square miles from 2016 through 2018. Landfills accounted for 41% of the source emissions it identified, manure management 26% and oil and gas operations 26%.

Researchers cautioned that the survey wasn't foolproof. It was, after all, their first attempt at estimating emissions from individual sources on such a large scale over multiple years. Some of the emissions detected were intermittent, some were too small to measure and others were affected by winds.

The results, however, are already effecting change. The survey revealed four incidents of leaking natural gas distribution lines and one leaking liquefied natural gas storage tank, which operators confirmed and repaired.

– *With assistance by Eric Roston*

In this article

CL1

WTI Crude

58.48 USD/bbl. ▼ -0.04 -0.07%

NG1

Generic 1st 'NG' Future

2.01 USD/MMBtu ▼ -0.07 -3.27%

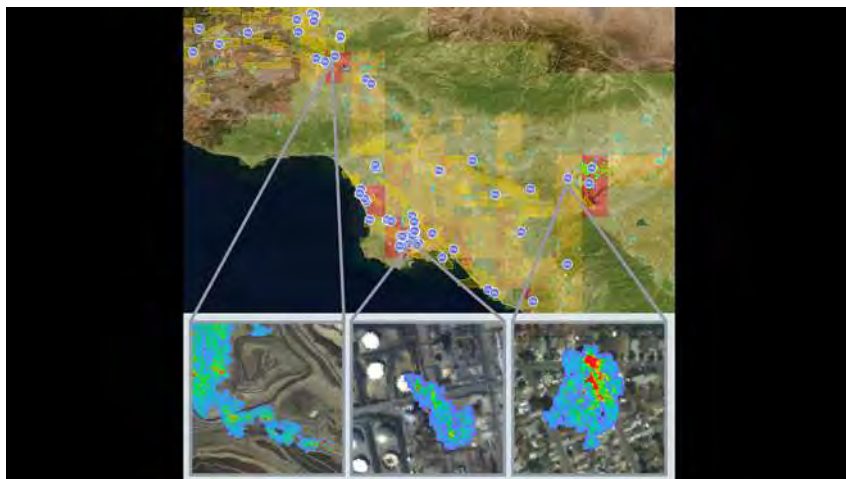
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EXHIBIT 8

NEWS | November 6, 2019

A Third of California Methane Traced to a Few Super-Emitters

By Esprit Smith,
NASA's Earth Science News Team



Views from NASA's [Methane Source Finder](#), a tool that provides methane data for the state of California. The data are derived from airborne remote-sensing, surface-monitoring networks and satellites and are presented on an interactive map alongside infrastructure information. Credit: NASA/JPL-Caltech

[Larger view](#)

NASA scientists are helping California create a detailed, statewide inventory of methane point sources — highly concentrated methane releases from single sources — using a specialized airborne sensor. The new data, published this week in the journal *Nature*, can be used to target actions to reduce emissions of this potent greenhouse gas.

Like carbon dioxide, methane traps heat in the atmosphere, but it does so more efficiently and for a shorter period of time. Scientists estimate that most methane emissions in California are driven by industrial facilities, such as oil and gas fields, large dairies and landfills. To help reduce methane's impact on climate, the state has made cutting human-caused emissions a priority. But in order to cut these hard-to-detect emissions, they have to be measured and the sources identified.

NASA, through partnerships with the California Air Resources Board (CARB) and the California Energy Commission, set out to do just that. Over a two-year period, a research team at NASA's Jet Propulsion Laboratory in Pasadena, California, flew a plane equipped with the [Airborne Visible InfraRed](#)

[Imaging Spectrometer - Next Generation \(AVIRIS-](#)

[NG](#)) instrument over nearly 300,000 facilities and infrastructure components in those sectors. The instrument can detect plumes of methane in great detail. Each pixel covers an area of about 10 feet (3 meters) across, which allows scientists to see even small plumes that often go undetected.

The team identified more than 550 individual point sources emitting plumes of highly concentrated methane. Ten percent of these sources, considered super-emitters, contributed the majority of the emissions detected. The team estimates that statewide, super-emitters are responsible for about a third of California's total methane budget.

Emissions data like this can help facility operators identify and correct problems — and in turn, bring California closer to its emissions goals. For example, of the 270 surveyed landfills, only 30 were observed to emit large plumes of methane. However, those 30 were responsible for 40 percent of the total point-source emissions detected during the survey. This type of data could help these facilities to identify possible leaks or malfunctions in their gas-capture systems.

"These findings illustrate the importance of monitoring point sources across multiple sectors [of the economy] and broad regions, both for improved understanding of methane budgets and to support emission mitigation efforts," said the lead scientist on the study, Riley Duren, who conducted the work for NASA's Jet Propulsion Laboratory.

Initial results have been shared with facility operators in California to make them aware of the need to improve their methane-leak detection processes and to institute better controls on methane emissions. Results will also be used to help state and local agencies and businesses prioritize investments in methane-emission mitigation.

Although the survey provides a detailed map of methane emissions for the areas observed in the state, researchers caution that this was the first attempt to estimate emissions for individual methane sources from a large population distributed across such an extensive area over multiple years.

Additionally, this survey was designed to detect highly concentrated releases of methane from a single component or piece of industrial equipment, such as an oil well. The survey excluded non-point sources, such as small natural gas

leaks from millions of homes, because even though they may have a collective impact on atmospheric methane levels, their individual emissions are below the detection levels of this method.

The survey builds on a decade of cooperation between NASA, CARB and the California Energy Commission to support the state's ambitious climate change mitigation program, specifically on the study of air pollution impacts from the oil and gas sector.

"This new remote-sensing technology addresses the continuing need for detailed, high-quality data about methane," said California Air Resources Board Chair Mary D. Nichols. "It will help us and the Energy Commission develop the best strategies for capturing this highly potent greenhouse gas."

The final report of the California Methane Survey will be available in the fall.

The map and data from this survey can be viewed here:

<http://methane.jpl.nasa.gov/>

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EXHIBIT 9

8

Anthropogenic and Natural Radiative Forcing

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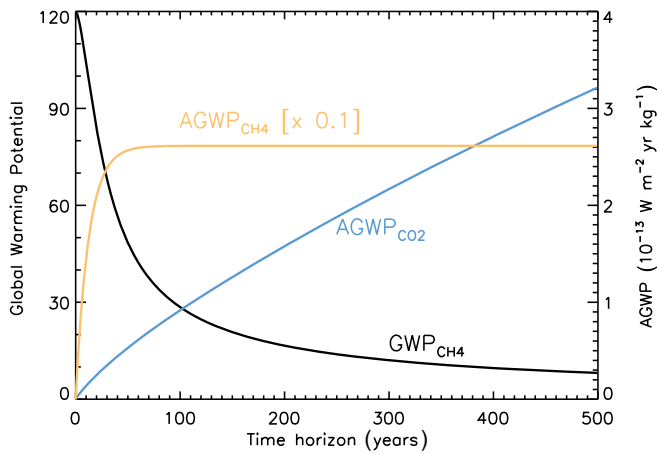


Figure 8.29 | Development of AGWP-CO₂, AGWP-CH₄ and GWP-CH₄ with time horizon. The yellow and blue curves show how the AGWPs changes with increasing time horizon. Because of the integrative nature the AGWP for CH₄ (yellow curve) reaches a constant level after about five decades. The AGWP for CO₂ continues to increase for centuries. Thus the ratio which is the GWP (black curve) falls with increasing time horizon.

on the relative weight assigned to effects at different times. Other important choices include the background atmosphere on which the GWP calculations are superimposed, and the way indirect effects and feedbacks are included (see Section 8.7.1.4).

For some gases the variation in GWP with time horizon mainly reflects properties of the reference gas, not the gas for which the GWP is calculated. The GWP for NTCFs decreases with increasing time horizon, as GWP is defined with the integrated RF of CO₂ in the denominator. As shown in Figure 8.29, after about five decades the development in the GWP for CH₄ is almost entirely determined by CO₂. However, for long-lived gases (e.g., SF₆) the development in GWP is controlled by both the increasing integrals of RF from the long-lived gas and CO₂.

8.7.1.3 The Global Temperature change Potential Concept

Compared to the GWP, the Global Temperature change Potential (GTP; Shine et al., 2005a) goes one step further down the cause–effect chain (Figure 8.27) and is defined as the *change in global mean surface temperature at a chosen point in time* in response to an emission pulse—relative to that of CO₂. Whereas GWP is integrated in time (Figure 8.28a), GTP is an end-point metric that is based on temperature change for a selected year, t , (see Figure 8.28b with formula). Like for the GWP, the impact from CO₂ is normally used as reference, hence, for a component i , $GTP(t)_i = AGTP(t)_i / AGTP(t)_{CO_2} = \Delta T(t)_i / \Delta T(t)_{CO_2}$, where AGTP is the absolute GTP giving temperature change per unit emission (see Supplementary Material Section 8.SM.11 for equations and parameter values). Shine et al. (2005a) presented the GTP for both pulse and sustained emission changes based on an energy balance model as well as analytical equations. A modification was later introduced (Shine et al., 2007) in which the time horizon is determined by the proximity to a target year as calculated by using scenarios and climate models (see Section 8.7.1.5).

Like GWP, the GTP values can be used for weighting the emissions to obtain ‘CO₂ equivalents’ (see Section 8.7.1.1). This gives the

temperature effects of emissions relative to that of CO₂ for the chosen time horizon. As for GWP, the choice of time horizon has a strong effect on the metric values and the calculated contributions to warming.

In addition, the AGTP can be used to calculate the global mean temperature change due to any given emission scenario (assuming linearity) using a convolution of the emission scenarios and AGTP _{i} :

$$\Delta \bar{T}(t) = \sum_{i,j} \int_{s=0}^t \bar{A}_i(s) \bar{A}_j(t-s) \Delta E_{ij}(s) ds \quad (8.1)$$

where i is component, t is time, and s is time of emission (Berntsen and Fuglestvedt, 2008; Peters et al., 2011b; Shindell et al., 2011).

By accounting for the climate sensitivity and the exchange of heat between the atmosphere and the ocean, the GTP includes physical processes that the GWP does not. The GTP accounts for the slow response of the (deep) ocean, thereby prolonging the response to emissions beyond what is controlled by the decay time of the atmospheric concentration. Thus the GTP includes both the atmospheric adjustment time scale of the component considered and the response time scale of the climate system.

The GWP and GTP are fundamentally different by construction and different numerical values can be expected. In particular, the GWPs for NTCFs, over the same time frames, are higher than GTPs due to the integrative nature of the metric. The GTP values can be significantly affected by assumptions about the climate sensitivity and heat uptake by the ocean. Thus, the relative uncertainty ranges are wider for the GTP compared to GWP (see Section 8.7.1.4). The additional uncertainty is a typical trade-off when moving along the cause–effect chain to an effect of greater societal relevance (Figure 8.27). The formulation of the ocean response in the GTP has a substantial effect on the values; thus its characterization also represents a trade-off between simplicity and accuracy. As for GWP, the GTP is also influenced by the background atmosphere, and the way indirect effects and feedbacks are included (see Section 8.7.1.4).

8.7.1.4 Uncertainties and Limitations related to Global Warming Potential and Global Temperature change Potential

The uncertainty in the numerator of GWP; that is, the AGWP _{i} (see formula in Figure 8.28a) is determined by uncertainties in lifetimes (or perturbation lifetimes) and radiative efficiency. Inclusion of indirect effects increases uncertainties (see below). For the reference gas CO₂, the uncertainty is dominated by uncertainties in the *impulse response function* (IRF) that describes the development in atmospheric concentration that follows from an emission pulse (Joos et al., 2013); see Box 6.2 and Supplementary Material Section 8.SM.12. The IRF is sensitive to model representation of the carbon cycle, pulse size and background CO₂ concentrations and climate.

Based on a multi-model study, Joos et al. (2013) estimate uncertainty ranges for the time-integrated IRF for CO₂ to be ±15% and ±25% (5 to 95% uncertainty range) for 20- and 100-year time horizons, respectively. Assuming quadratic error propagation, and ±10% uncertainty in radiative efficiency, the uncertainty ranges in AGWP for CO₂ were estimated to be ±18% and ±26% for 20 and 100 years. These

uncertainties affect all metrics that use CO₂ as reference. Reisinger et al. (2010) and Joos et al. (2013) show that these uncertainties increase with time horizon.

The same factors contribute to uncertainties in the GTP, with an additional contribution from the parameters describing the ocean heat uptake and climate sensitivity. In the first presentation of the GTP, Shine et al. (2005a) used one time constant for the climate response in their analytical expression. Improved approaches were used by Boucher and Reddy (2008), Collins et al. (2010) and Berntsen and Fuglestedt (2008) that include more explicit representations of the deep ocean that increased the long-term response to a pulse forcing. Over the range of climate sensitivities from AR4, GTP₅₀ for BC was found to vary by a factor of 2, the CH₄ GTP₅₀ varied by about 50%, while for N₂O essentially no dependence was found (Fuglestedt et al., 2010). AGTPs for CO₂ were also calculated in the multi-model study by Joos et al. (2013). They found uncertainty ranges in AGTP that are much larger than for AGWP; ±45% and ±90% for 20 and 100 years (5 to 95% uncertainty range). These uncertainty ranges also reflect the signal-to-noise ratio, and not only uncertainty in the physical mechanisms.

There are studies combining uncertainties in various input parameters. Reisinger et al. (2011) estimated the uncertainty in the GWP for CH₄ and found an uncertainty of −30 to +40% for the GWP₁₀₀ and −50 to +75% for GTP₁₀₀ of CH₄ (for 5 to 95% of the range). Boucher (2012) performed a Monte Carlo analysis with uncertainties in perturbation lifetime and radiative efficiency, and for GWP₁₀₀ for CH₄ (assuming a constant background atmosphere) he found ±20%, and −40 to +65 for GTP₁₀₀ (for 5 to 95% uncertainty range).

Here we estimate uncertainties in GWP values based on the uncertainties given for radiative efficiencies (Section 8.3.1), perturbation lifetimes, indirect effects and in the AGWP for the reference gas CO₂ (see Supplementary Material Section 8.SM.12). For CH₄ GWP we estimate an uncertainty of ±30% and ±40% for 20- and 100-year time horizons, respectively (for 5 to 95% uncertainty range). The uncertainty is dominated by AGWP for CO₂ and indirect effects. For gases with lifetimes of a century or more the uncertainties are of the order of ±20% and ±30% for 20- and 100-year horizons. The uncertainty in GWPs for gases with lifetimes of a few decades is estimated to be of the order of ±25% and ±35% for 20 and 100 years. For shorter-lived gases, the uncertainties in GWPs will be larger (see Supplementary Material Section 8.SM.12 for a discussion of contributions to the total uncertainty.) For GTP, few uncertainty estimates are available in the literature. Based on the results from Joos et al. (2013), Reisinger et al. (2010) and Boucher (2012) we assess the uncertainty to be of the order of ±75% for the CH₄ GTP₁₀₀.

The metric values are also strongly dependent on which processes are included in the definition of a metric. Ideally all indirect effects (Sections 8.2 and 8.3) should be taken into account in the calculation of metrics. The indirect effects of CH₄ on its own lifetime, tropospheric ozone and stratospheric water have been traditionally included in its GWP. Boucher et al. (2009) have quantified an indirect effect on CO₂ when fossil fuel CH₄ is oxidized in the atmosphere. Shindell et al. (2009) estimated the impact of reactive species emissions on both gaseous and aerosol forcing species and found that ozone precursors,

including CH₄, had an additional substantial climate effect because they increased or decreased the rate of oxidation of SO₂ to sulphate aerosol. Studies with different sulphur cycle formulations have found lower sensitivity (Collins et al., 2010; Fry et al., 2012). Collins et al. (2010) postulated an additional component to their GWPs and GTPs for ozone precursors due to the decreased productivity of plants under higher levels of surface ozone. This was estimated to have the same magnitude as the ozone and CH₄ effects. This effect, however, has so far only been examined with one model. In a complex and interconnected system, feedbacks can become increasingly complex, and uncertainty of the magnitude and even direction of feedback increases the further one departs from the primary perturbation, resulting in a trade-off between completeness and robustness, and hence utility for decision-making.

Gillett and Matthews (2010) included climate–carbon feedbacks in calculations of GWP for CH₄ and N₂O and found that this increased the values by about 20% for 100 years. For GTP of CH₄ they found an increase of ~80%. They used numerical models for their studies and suggest that climate–carbon feedbacks should be considered and parameterized when used in simple models to derive metrics. Collins et al. (2013) parameterize the climate-carbon feedback based on Friedlingstein et al. (2006) and Arora et al. (2013) and find that this more than doubles the GTP₁₀₀ for CH₄. Enhancement of the GTP for CH₄ due to carbon–climate feedbacks may also explain the higher GTP values found by Reisinger et al. (2010).

The inclusion of indirect effects and feedbacks in metric values has been inconsistent in the IPCC reports. In SAR and TAR, a carbon model without a coupling to a climate model was used for calculation of IRF for CO₂ (Joos et al., 1996), while in AR4 climate-carbon feedbacks were included for the CO₂ IRF (Plattner et al., 2008). For the time horizons 20 and 100 years, the AGWP_{CO2} calculated with the Bern3D-LPJ model is, depending on the pulse size, 4 to 5% and 13 to 15% lower, respectively, when carbon cycle–climate feedbacks are not included (Joos et al., 2013). While the AGWP for the reference gas CO₂ included climate–carbon feedbacks, this is not the case for the non-CO₂ gas in the numerator of GWP, as recognized by Gillett and Matthews (2010), Joos et al. (2013), Collins et al. (2013) and Sarofim (2012). This means that the GWPs presented in AR4 may underestimate the relative impacts of non-CO₂ gases. The different inclusions of feedbacks partially represent the current state of knowledge, but also reflect inconsistent and ambiguous definitions. In calculations of AGWP for CO₂ in AR5 we use the IRF for CO₂ from Joos et al. (2013) which includes climate–carbon feedbacks. Metric values in AR5 are presented both with and without including climate–carbon feedbacks for non-CO₂ gases. This feedback is based on the carbon-cycle response in a similar set of models (Arora et al., 2013) as used for the reference gas (Collins et al., 2013).

The effect of including this feedback for the non-reference gas increases with time horizon due to the long-lived nature of the initiated CO₂ perturbation (Table 8.7). The relative importance also increases with decreasing lifetime of the component, and is larger for GTP than GWP due to the integrative nature of GWP. We calculate an increase in the CH₄ GWP₁₀₀ of 20%. For GTP₁₀₀, however, the changes are much larger; of the order of 160%. For the shorter time horizons (e.g., 20 years) the effect of including this feedback is small (<5%) for both GWP

Table 8.7 | GWP and GTP with and without inclusion of climate–carbon feedbacks (cc fb) in response to emissions of the indicated non-CO₂ gases (climate-carbon feedbacks in response to the reference gas CO₂ are always included).

| | Lifetime (years) | | GWP ₂₀ | GWP ₁₀₀ | GTP ₂₀ | GTP ₁₀₀ |
|------------------------------|--------------------|------------|-------------------|--------------------|-------------------|--------------------|
| CH ₄ ^b | 12.4 ^a | No cc fb | 84 | 28 | 67 | 4 |
| | | With cc fb | 86 | 34 | 70 | 11 |
| HFC-134a | 13.4 | No cc fb | 3710 | 1300 | 3050 | 201 |
| | | With cc fb | 3790 | 1550 | 3170 | 530 |
| CFC-11 | 45.0 | No cc fb | 6900 | 4660 | 6890 | 2340 |
| | | With cc fb | 7020 | 5350 | 7080 | 3490 |
| N ₂ O | 121.0 ^a | No cc fb | 264 | 265 | 277 | 234 |
| | | With cc fb | 268 | 298 | 284 | 297 |
| CF ₄ | 50,000.0 | No cc fb | 4880 | 6630 | 5270 | 8040 |
| | | With cc fb | 4950 | 7350 | 5400 | 9560 |

Notes:

Uncertainties related to the climate–carbon feedback are large, comparable in magnitude to the strength of the feedback for a single gas.

^a Perturbation lifetime is used in the calculation of metrics.

^b These values do not include CO₂ from methane oxidation. Values for fossil methane are higher by 1 and 2 for the 20 and 100 year metrics, respectively (Table 8.A.1).

and GTP. For the more long-lived gases the GWP₁₀₀ values increase by 10 to 12%, while for GTP₁₀₀ the increase is 20 to 30%. Table 8.A.1 gives metric values including the climate–carbon feedback for CO₂ only, while Supplementary Material Table 8.SM.16 gives values for all halocarbons that include the climate–carbon feedback. Though uncertainties in the carbon cycle are substantial, it is *likely* that including the climate–carbon feedback for non-CO₂ gases as well as for CO₂ provides a better estimate of the metric value than including it only for CO₂.

Emission metrics can be estimated based on a constant or variable background climate and this influences both the adjustment times and the concentration–forcing–temperature relationships. Thus, all metric values will need updating due to changing atmospheric conditions as well as improved input data. In AR5 we define the metric values with respect to a constant present-day condition of concentrations and climate. However, under non-constant background, Joos et al. (2013) found decreasing CO₂ AGWP₁₀₀ for increasing background levels (up to 23% for RCP8.5). This means that GWP for all non-CO₂ gases (except CH₄ and N₂O) would increase by roughly the same magnitude. Reisinger et al. (2011) found a reduction in AGWP for CO₂ of 36% for RCP8.5 from 2000 to 2100 and that the CH₄ radiative efficiency and AGWP also decrease with increasing CH₄ concentration. Accounting for both effects, the GWP₁₀₀ for CH₄ would increase by 10 to 20% under low and mid-range RCPs by 2100, but would decrease by up to 10% by mid-century under the highest RCP. While these studies have focused on the background levels of GHGs, the same issues apply for temperature. Olivé et al. (2012) find different temperature IRFs depending on the background climate (and experimental set up).

User related choices (see Box 8.4) such as the time horizon can greatly affect the numerical values obtained for CO₂ equivalents. For a change in time horizon from 20 to 100 years, the GWP for CH₄ decreases by a factor of approximately 3 and its GTP by more than a factor of 10. Short-lived species are most sensitive to this choice. Some approaches have removed the time horizon from the metrics (e.g., Boucher, 2012), but discounting is usually introduced which means that a discount rate

r (for the weighting function e^{-rt}) must be chosen instead. The choice of discount rate is also value based (see WGIII, Chapter 3).

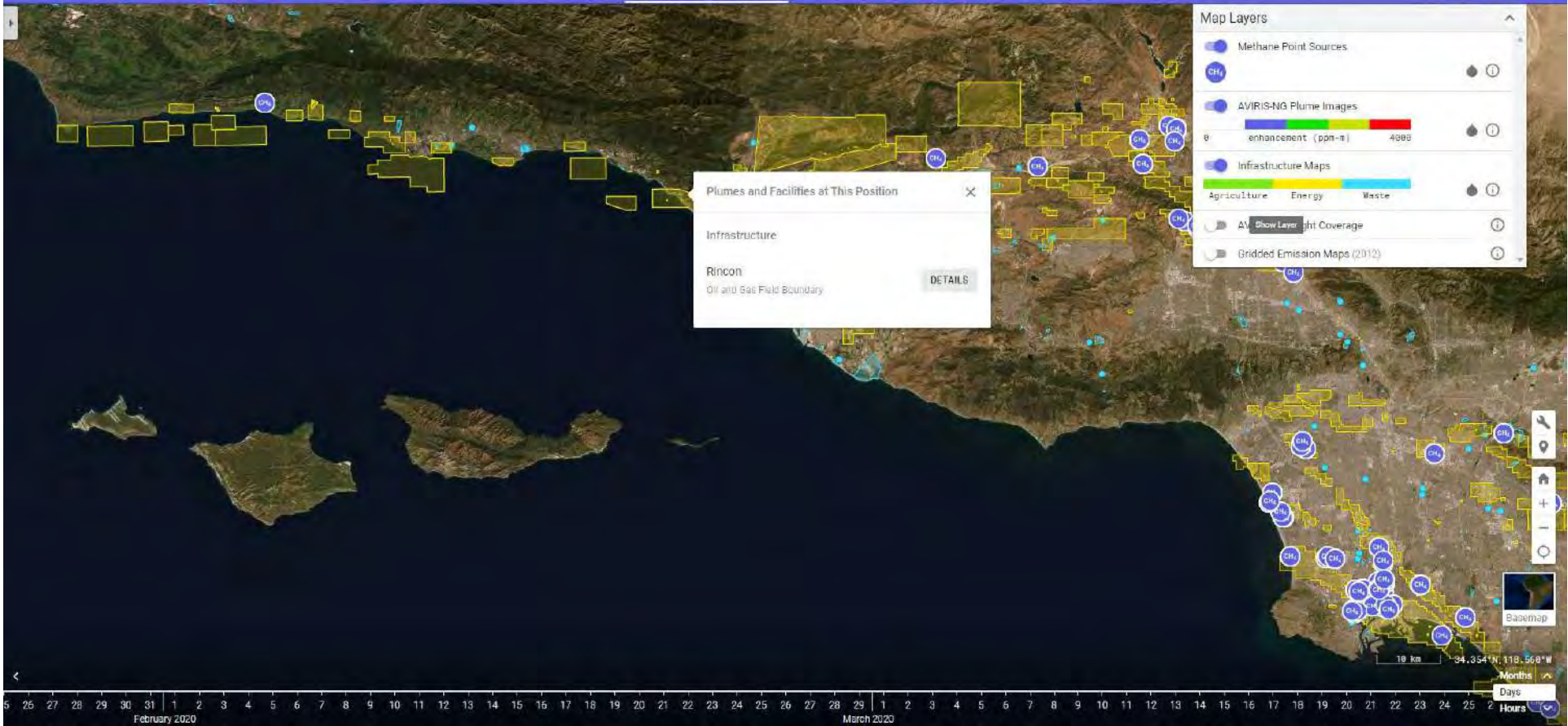
For NTCFs the metric values also depend on the location and timing of emission and whether regional or global metrics are used for these gases is also a choice for the users. Metrics are usually calculated for pulses, but some studies also give metric values that assume constant emissions over the full time horizon (e.g., Shine et al., 2005a; Jacobson, 2010). It is important to be aware of the idealized assumption about constant future emissions (or change in emissions) of the compound being considered if metrics for sustained emissions are used.

8.7.1.5 New Metric Concepts

New metric concepts have been developed both to modify physical metrics to address shortcomings as well as to replace them with metrics that account for economic dimensions of problems to which metrics are applied. Modifications to physical metrics have been proposed to better represent CO₂ emissions from bioenergy, regional patterns of response, and for peak temperature limits.

Emissions of CO₂ from the combustion of biomass for energy in national emission inventories are currently assumed to have no net RF, based on the assumption that these emissions are compensated by biomass regrowth (IPCC, 1996). However, there is a time lag between combustion and regrowth, and while the CO₂ is resident in the atmosphere it leads to an additional RF. Modifications of the GWP and GTP for bioenergy (GWP_{bio}, GTP_{bio}) have been developed (Cherubini et al., 2011; Cherubini et al., 2012). The GWP_{bio} give values generally between zero (current default for bioenergy) and one (current for fossil fuel emissions) (Cherubini et al., 2011), and negative values are possible for GTP_{bio} due to the fast time scale of atmospheric–ocean CO₂ exchange relative to the growth cycle of biomass (Cherubini et al., 2012). GWP_{bio} and GTP_{bio} have been used in only a few applications, and more research is needed to assess their robustness and applicability. Metrics for biogeophysical effects, such as albedo changes, have been proposed (Betts, 2000; Rotenberg and Yakir, 2010), but as for NTCFs regional variations

EXHIBIT 10



Plumes and Facilities at This Position

Infrastructure:

Rincon
Oil and Gas Field Boundary

DETAILS

Map Layers

- Methane Point Sources
- AVIRIS-NG Plume Images
enhancement (ppm-r) 4889
- Infrastructure Maps
Agriculture Energy Waste
- AVIRIS-NG Coverage
- Gridded Emission Maps (2012)



▶ [BACK TO MAP](#)



Rincon

1B2 Oil and Natural Gas - undefined, CA

Facility Overview

| | | | |
|------------------|-----------------------------|--------------------|--------------------------|
| Site | Rincon | Facility Type | 1B2 Oil and Natural Gas |
| Operator | (no operator name) | Location | 34.34317°N, -119.40835°W |
| Facility Address | (no address), (no city), CA | Number of Flyovers | 5 |
| Vista ID | FLD000362 | | |

[VIEW IN GOOGLE MAPS](#)

Vista Facility Metadata

| | | | |
|-----------|-----------|-----------|----------------------------|
| Source | CEC DOGGR | State | CA |
| VistaDate | 7/12/2019 | VistaPCC | 1B2 Oil and Natural Gas |
| VistaName | Rincon | VistaType | Oil and Gas Field Boundary |
| Vista_ID | FLD000362 | | |

Flyovers of: Rincon

Uncertainty Warning: *Flyovers may not include the entire facility.*

Plume Source ▾

LIST

THUMBNAILS

CHART

| Plume Detected | Source ID | Flyover Date | Candidate ID | Emissions (kg/hr) |
|----------------|-----------|--------------------|----------------------|-------------------|
| Yes | S00678 | 9/7/2017 20:48 | ang20170907t204826-B | 751 ± 175 |
| Yes | S00678 | 9/7/2017 21:00 | ang20170907t210002-A | 1587 ± 454 |
| Yes | S00678 | 9/7/2017 21:06 | ang20170907t210629-A | 1713 ± 529 |
| No | | 10/1/2018 19:07 | - | - |
| No | | 10/1/2018 19:15 | - | - |

Flyovers of: Rincon

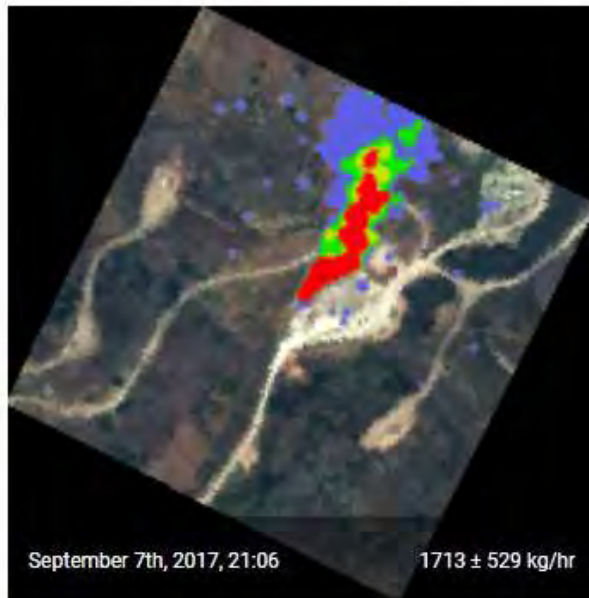
Uncertainty Warning: Flyovers may not include the entire facility.

Plume Source ▾

LIST

THUMBNAILS

CHART



Flyovers of: Rincon

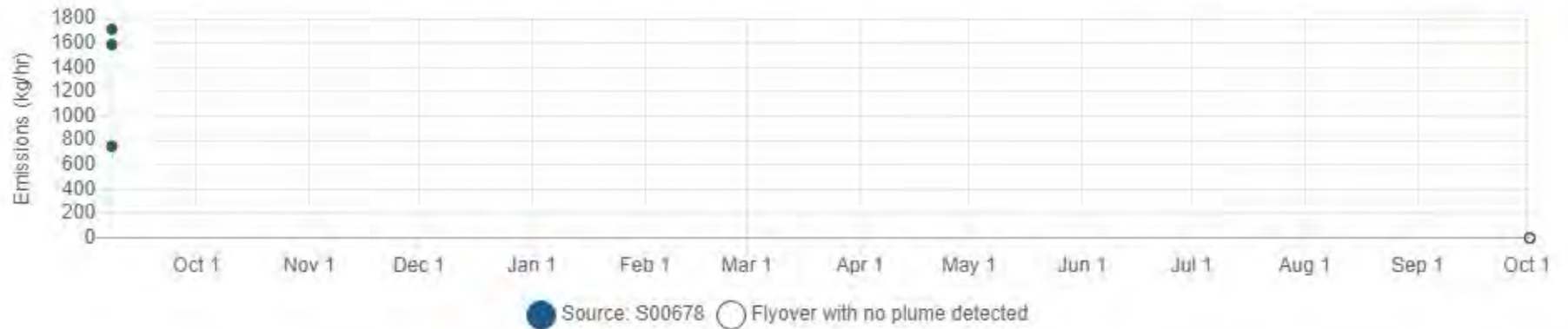
Uncertainty Warning: Flyovers may not include the entire facility

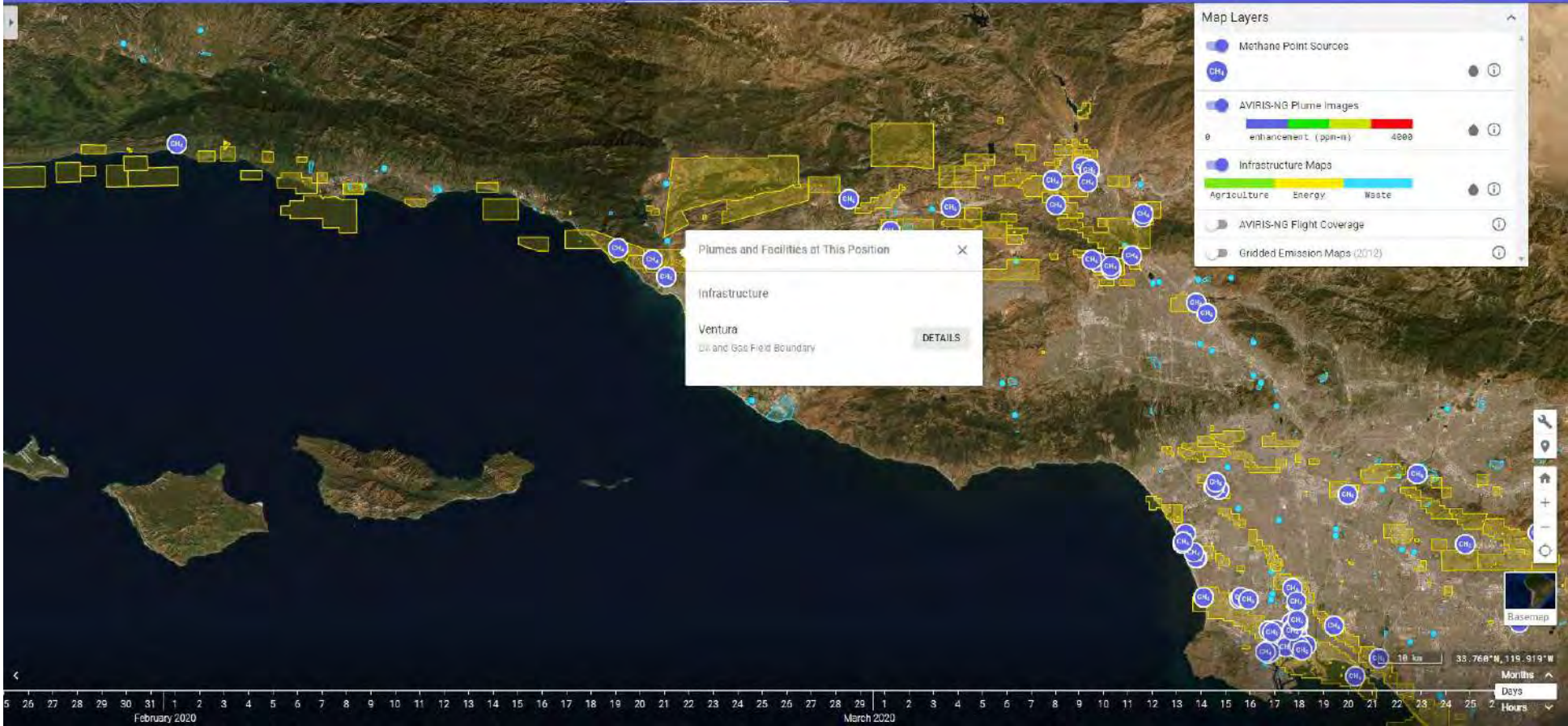
Plume Source ▾

LIST

THUMBNAILS

CHART





Plumes and Facilities at This Position

Infrastructure

Ventura

Dix and Bob Field Boundary

DETAILS

Map Layers

- Methane Point Sources
- AVIRIS-NG Plume Images
0 enhancement (ppb-m) 4000
- Infrastructure Maps
Agriculture Energy Waste
- AVIRIS-NG Flight Coverage
- Gridded Emission Maps (2012)

5 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

February 2020 March 2020

18 km 33.768°N, 119.919°W

Basemap

Months Days Hours



Ventura

1B2 Oil and Natural Gas · undefined, CA

Facility Overview

| | | | |
|------------------|-----------------------------|--------------------|-------------------------|
| Site | Ventura | Facility Type | 1B2 Oil and Natural Gas |
| Operator | (no operator name) | Location | 34.3207°N, -119.26691°W |
| Facility Address | (no address), (no city), CA | Number of Flyovers | 6 |
| Vista ID | FLD000486 | | |

[VIEW IN GOOGLE MAPS](#)

Vista Facility Metadata

| | | | |
|-----------|-----------|------------|----------------------------|
| Source | CEC DOGGR | State | CA |
| VistaDate | 7/12/2019 | VistaIPCC | 1B2 Oil and Natural Gas |
| VistaName | Ventura | VistaSType | Oil and Gas Field Boundary |
| Vista_ID | FLD000486 | | |

Flyovers of: **Ventura**

Uncertainty Warning: Flyovers may not include the entire facility.

Plume Source ▾

LIST

THUMBNAILS

CHART

| Plume Detected | Source ID | Flyover Date | Candidate ID | Emissions (kg/hr) |
|----------------|-----------|---------------------|----------------------|-------------------|
| Yes | S00677 | 9/7/2017 20:48 | ang20170907t204826-A | 475 ± 185 |
| No | | 9/7/2017 21:00 | - | - |
| No | | 9/7/2017 21:06 | - | - |
| No | | 10/16/2017 21:02 | - | - |
| No | | 10/1/2018 19:07 | - | - |
| No | | 10/1/2018 19:15 | - | - |

Flyovers of: **Ventura**

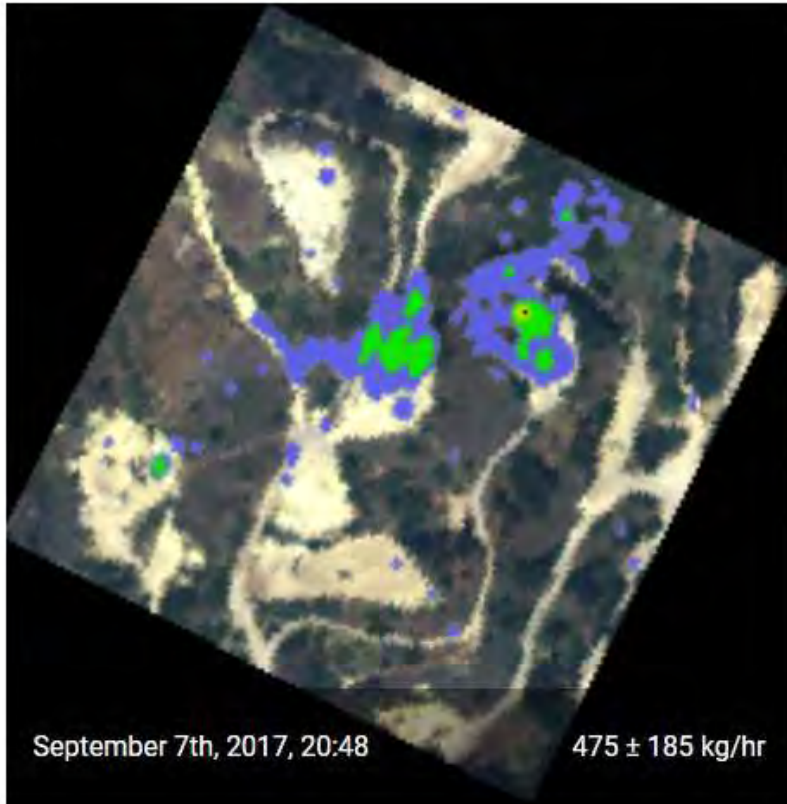
Uncertainty Warning: *Flyovers may not include the entire facility.*

Plume Source ▾

LIST

THUMBNAILS

CHART



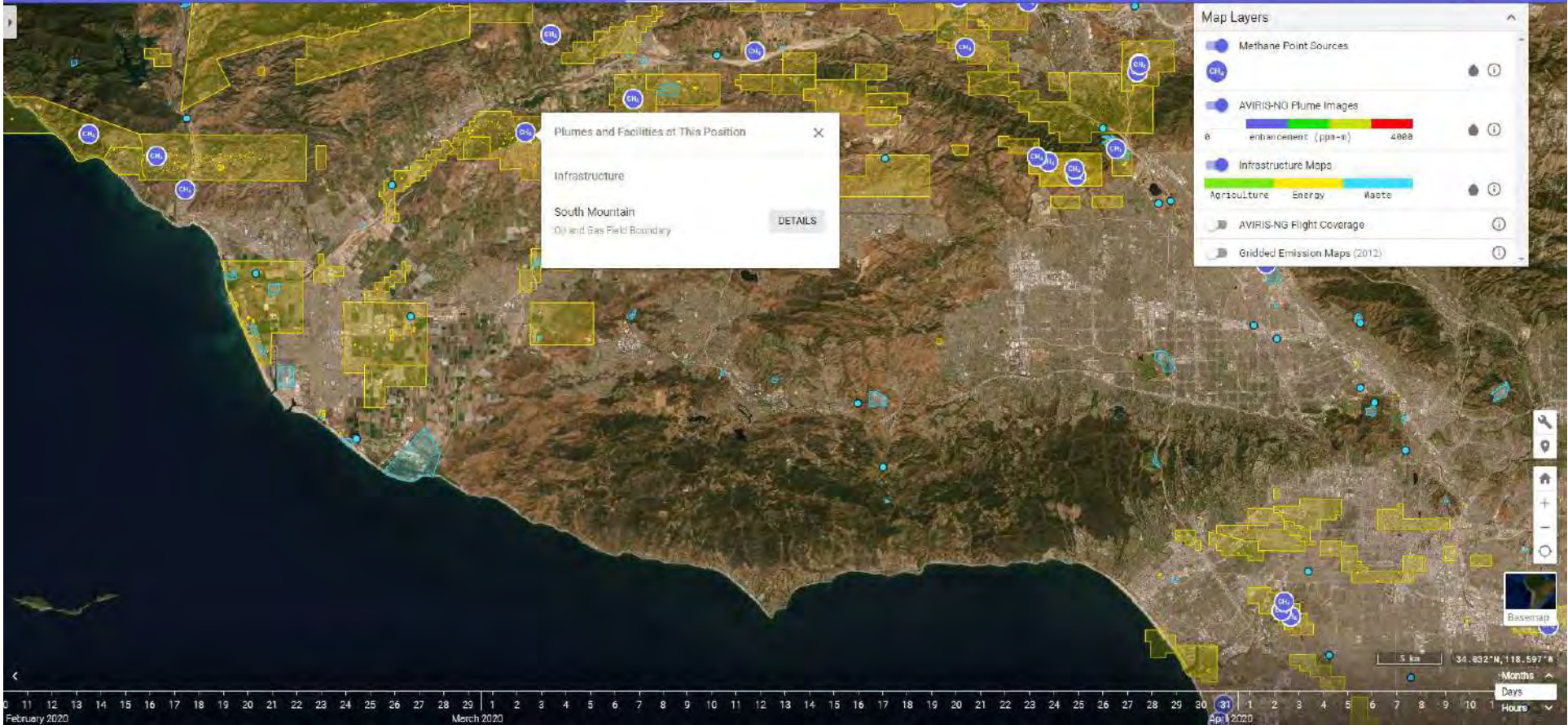
Flyovers of: **Ventura**

Uncertainty Warning: *Flyovers may not include the entire facility.*

Plume Source ▾

LIST THUMBNAILS **CHART**





BACK TO MAP



South Mountain

1B2 Oil and Natural Gas - undefined, CA

Facility Overview

| | | | |
|------------------|-----------------------------|--------------------|--------------------------|
| Site | South Mountain | Facility Type | 1B2 Oil and Natural Gas |
| Operator | (no operator name) | Location | 34.33237°N, -119.02436°W |
| Facility Address | (no address), (no city), CA | Number of Flyovers | 1 |
| Vista ID | FLD000428 | | |

[VIEW IN GOOGLE MAPS](#)

Vista Facility Metadata

| | | | |
|-----------|----------------|------------|----------------------------|
| Source | CEC DOGGR | State | CA |
| VistaDate | 7/12/2019 | VistaIPCC | 1B2 Oil and Natural Gas |
| VistaName | South Mountain | VistaSType | Oil and Gas Field Boundary |
| Vista_ID | FLD000428 | | |

Flyovers of: **South Mountain**

Uncertainty Warning: Flyovers may not include the entire facility.

Plume Source ▾

LIST THUMBNAILES CHART

| Plume Detected | Source ID | Flyover Date | Candidate ID | Emissions (kg/hr) |
|----------------|-----------|-------------------|----------------------|-------------------|
| Yes | S00923 | 9/7/2017 20:24 | ang20170907t202408-A | 404 ± 50 |

Flyovers of: **South Mountain**

Uncertainty Warning: *Flyovers may not include the entire facility.*

Plume Source ▾

LIST

THUMBNAILS

CHART



September 7th, 2017, 20:24

404 ± 50 kg/hr

Flyovers of: **South Mountain**

Uncertainty Warning: Flyovers may not include the entire facility.

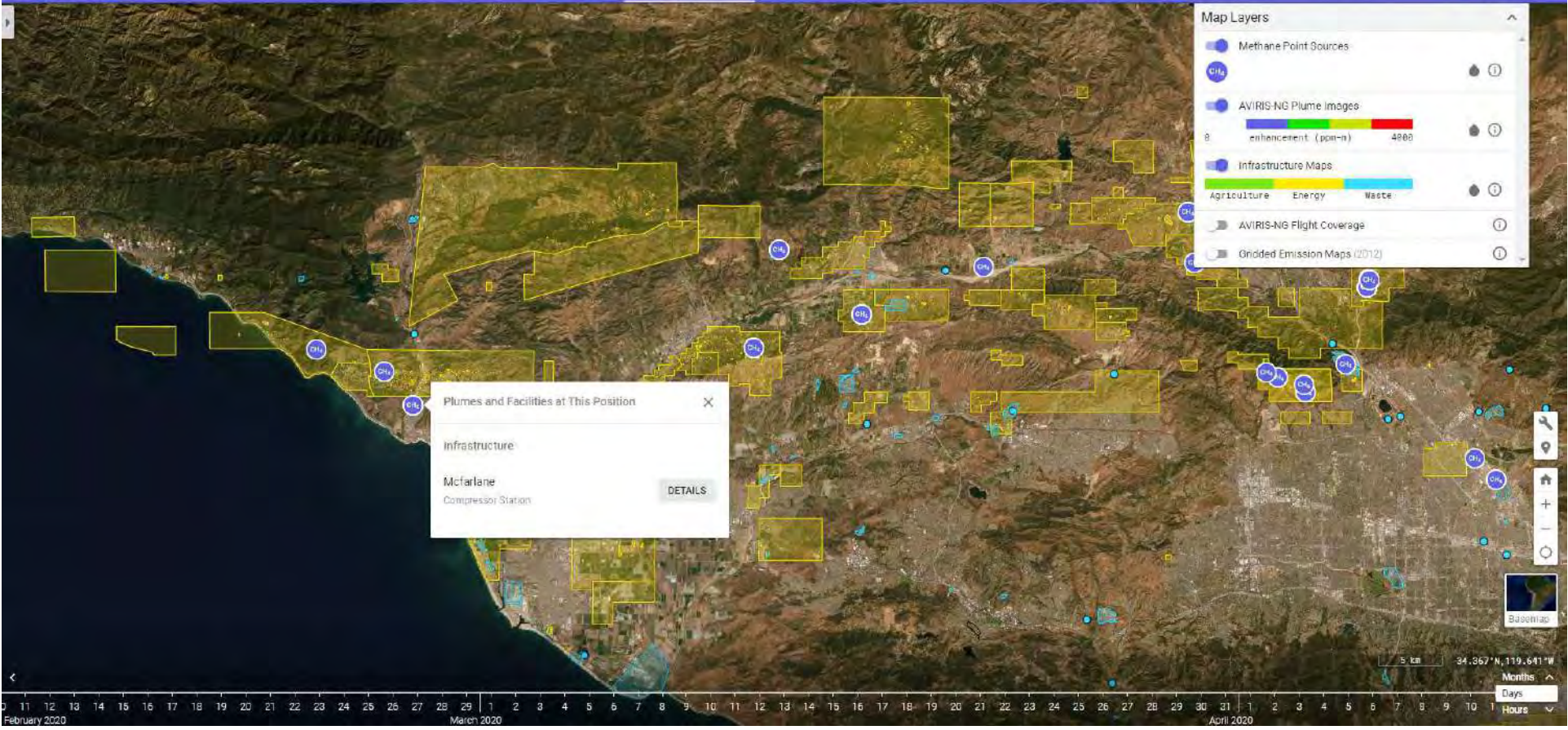
Plume Source ▾

LIST

THUMBNAILS

CHART





Plumes and Facilities at This Position

Infrastructure

McFarlane
Compressor Station

DETAILS

Map Layers

- Methane Point Sources
- CH₄
- AVIRIS-NG Plume Images
enhancement (ppm-n) 0 4000
- Infrastructure Maps
Agriculture Energy Waste
- AVIRIS-NG Flight Coverage
- Gridded Emission Maps (2012)

February 2020 March 2020 April 2020

5 km 34.367° N, 119.641° W

Months Days Hours

▶ [BACK TO MAP](#)



Mcfarlane

1B2 Oil and Natural Gas - Ventura, CA

Facility Overview

| | | | |
|------------------|---------------------------|--------------------|-----------------------------------|
| Site | Mcfarlane | Facility Type | 1B2 Oil and Natural Gas |
| Operator | SoCal Gas | Location | 34.2984062945°N, -119.299887748°W |
| Facility Address | (no address), Ventura, CA | Number of Flyovers | 2 |
| Vista ID | COM000288 | | |

[VIEW IN GOOGLE MAPS](#)

Vista Facility Metadata

| | | | |
|------------|-------------------------|-----------|------------|
| City | Ventura | Source | CEC |
| State | CA | VistaDate | 2019/07/12 |
| VistaPCC | 1B2 Oil and Natural Gas | VistaName | Mcfarlane |
| VistaSType | Compressor Station | Vista_ID | COM000288 |

Flyovers of: **Mcfarlane**

Uncertainty Warning: *Flyovers may not include the entire facility.*

Plume Source ▾

LIST

THUMBNAILS

CHART

| Plume Detected | Source ID | Flyover Date | Candidate ID | Emissions (kg/hr) |
|----------------|-----------|---------------------|----------------------|-------------------|
| No | | 9/7/2017 21:06 | - | - |
| Yes | S00930 | 10/16/2017 21:02 | ang20171016t210259-A | 344 ± 81 |

Flyovers of: Mcfarlane

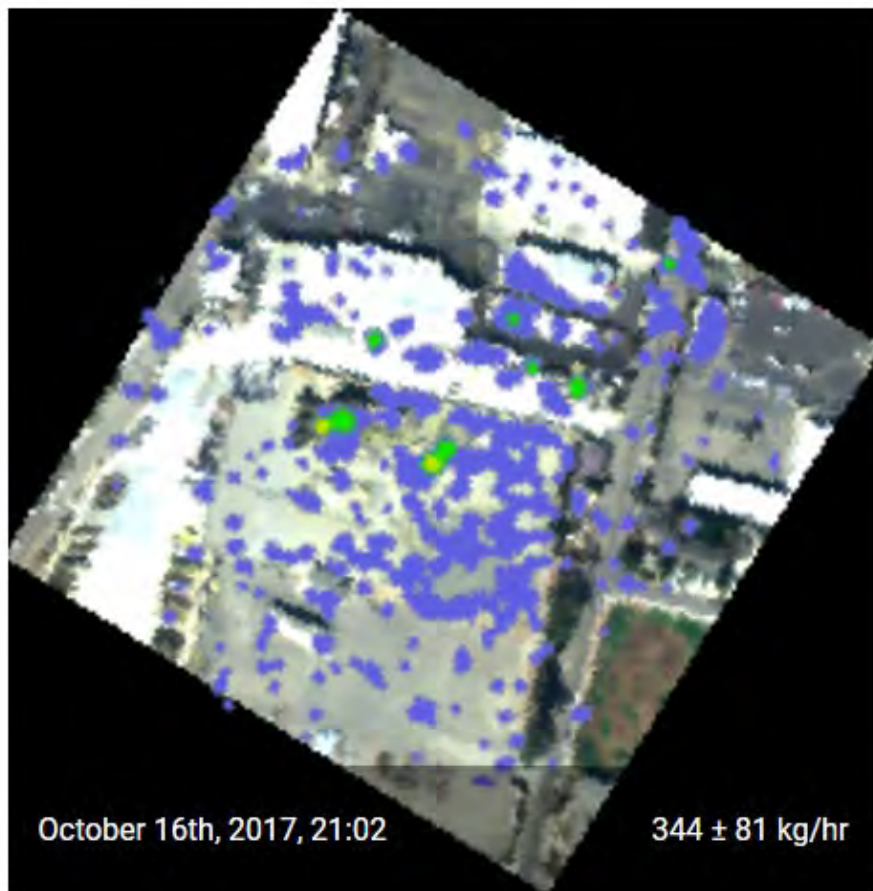
Uncertainty Warning: *Flyovers may not include the entire facility.*

Plume Source ▾

LIST

THUMBNAILS

CHART



Flyovers of: Mcfarlane

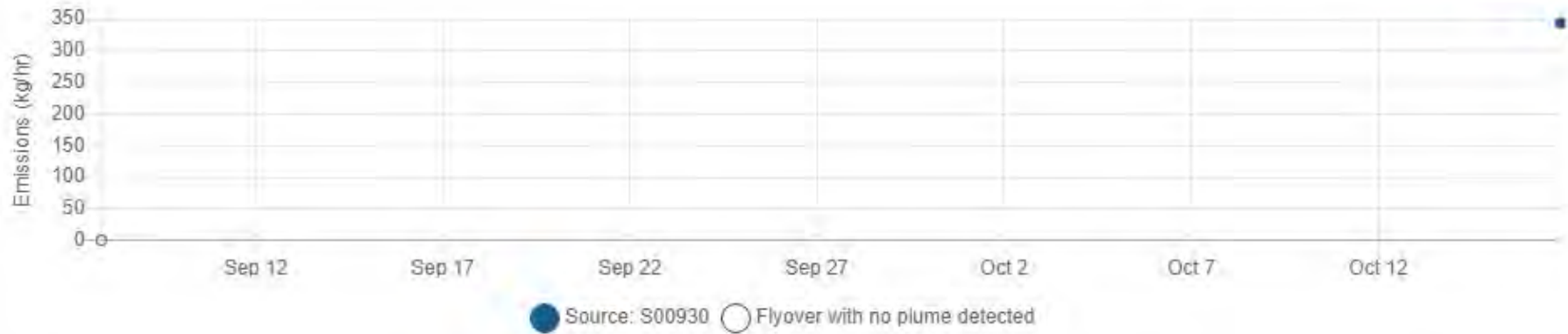
Uncertainty Warning: Flyovers may not include the entire facility

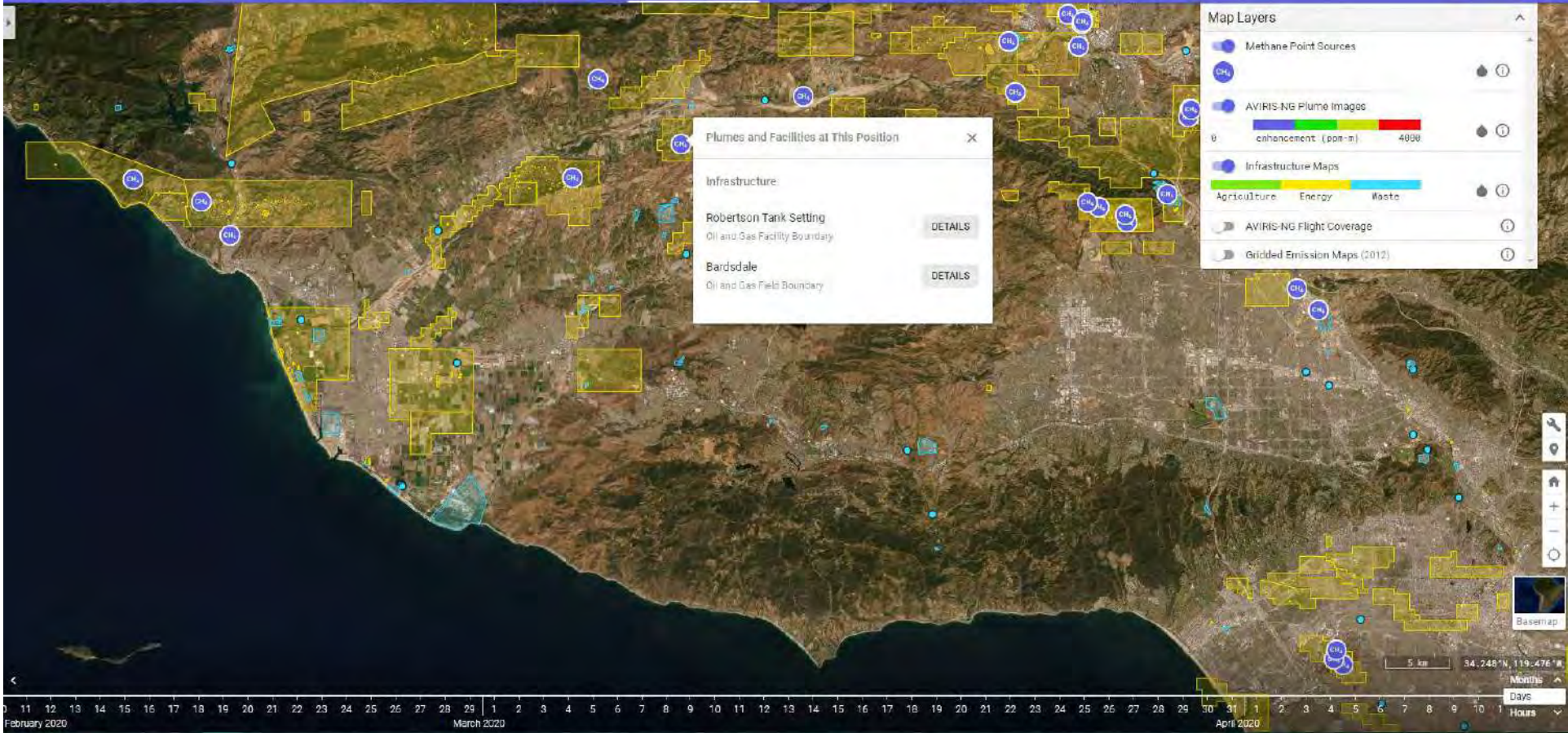
Plume Source ▾

LIST

THUMBNAILS

CHART





▶️ [BACK TO MAP](#)



Bardsdale

1B2 Oil and Natural Gas - undefined, CA

Facility Overview

| | | | |
|------------------|-----------------------------|--------------------|-------------------------|
| Site | Bardsdale | Facility Type | 1B2 Oil and Natural Gas |
| Operator | (no operator name) | Location | 34.3632°N, -118.92241°W |
| Facility Address | (no address), (no city), CA | Number of Flyovers | 4 |
| Vista ID | FLD000020 | | |

[VIEW IN GOOGLE MAPS](#)

Vista Facility Metadata

| | | | |
|-----------|-----------|------------|----------------------------|
| Source | CEC DOGGR | State | CA |
| VistaDate | 7/12/2019 | VistaPCC | 1B2 Oil and Natural Gas |
| VistaName | Bardsdale | VistaSType | Oil and Gas Field Boundary |
| Vista_ID | FLD000020 | | |

Flyovers of: **Bardsdale**

Uncertainty Warning: *Flyovers may not include the entire facility.*

Plume Source ▾

LIST

THUMBNAILS

CHART

| Plume Detected | Source ID | Flyover Date | Candidate ID | Emissions (kg/hr) |
|----------------|-----------|--------------------|----------------------|-------------------|
| No | | 9/30/2016 21:12 | - | - |
| No | | 9/30/2016 21:30 | - | - |
| No | | 9/30/2016 22:39 | - | - |
| Yes | S00924 | 9/7/2017 20:24 | ang20170907t202408-B | 115 ± 17 |

Flyovers of: **Bardsdale**

Uncertainty Warning: *Flyovers may not include the entire facility.*

Plume Source ▾

LIST

THUMBNAILS

CHART



September 7th, 2017, 20:24

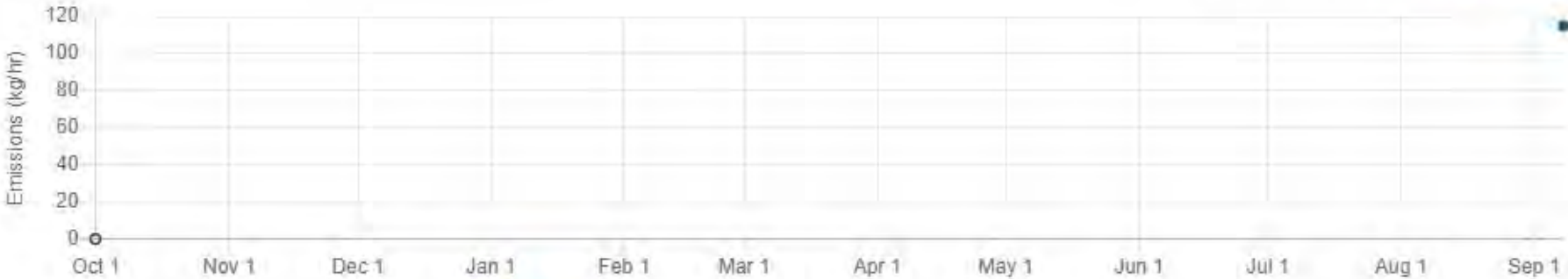
115 ± 17 kg/hr

Flyovers of: **Bardsdale**

Uncertainty Warning: Flyovers may not include the entire facility.

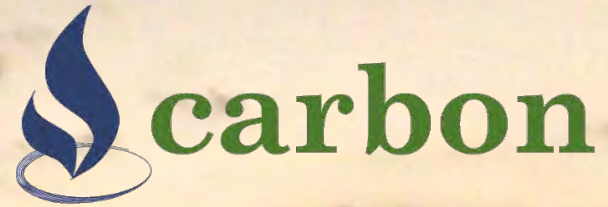
Plume Source ▾

LIST THUMBNAIls **CHART**



● Source: S00924 ○ Flyover with no plume detected

EXHIBIT 11



Carbon Energy Corporation

Corporate Overview

2019

IMPORTANT DISCLOSURES

Forward-Looking Statements

The slides contain certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Except for historical information, statements made in the slide presentation, including those relating to the Company’s strategies, estimated and anticipated production, expenditures, infrastructure, estimated costs, number of wells to be drilled, estimated reserves, reserve potential, recoverable reserves, and financial position are forward-looking statements as defined by the Securities and Exchange Commission. These statements are based on assumptions and estimates that management believes are reasonable based on currently available information; however, management’s assumptions and the Company’s future performance are subject to a wide range of business risks and uncertainties and there is no assurance that these goals and projections can or will be met. Any number of factors could cause actual results to differ materially from those in the forward-looking statements, including, but not limited to, the volatility of oil and gas prices, the costs and results of drilling and operations, the timing of production, mechanical and other inherent risks associated with oil and gas production, weather, the availability of drilling equipment, changes in interest rates, litigation, uncertainties about reserve estimates, and environmental risk. We caution you not place undue reliance on these forward-looking statements, which speak only as of the date reflected in the slide presentation, and we undertake no obligation to publicly update or revise any forward-looking statements. Further information on risks and uncertainties is available in the Company’s filings with the Securities and Exchange Commission, which are incorporated by reference.

Actual quantities of oil and gas that may be ultimately recovered from Carbon’s interests will differ substantially from our estimates. Factors affecting ultimate recovery include the scope of Carbon’s drilling program, which will be directly affected by the availability of capital, drilling and production costs, commodity prices, availability of drilling services and equipment, drilling results, lease expirations, transportation constraints, regulatory approvals, field spacing rules, recovery of gas in place, length of horizontal laterals, actual drilling results, and geological and mechanical factors affecting recovery rates and other factors. Estimates of reserves potential may change significantly as development of our reserves plays provides additional data. Investors are urged to consider closely the disclosure in our filings with the SEC available upon request to: Corporate Secretary, Carbon Energy Corporation, 1700 Broadway, Suite 1170, Denver, Colorado 80290; tel: (720) 407-7030. You can also obtain our public filings from the SEC’s website, <http://www.sec.gov>.

Non-GAAP Measures

The slide presentation contains certain references to EBITDA and Adjusted EBITDA value, which are non-GAAP financial measures, as defined under Regulation G of the rules and regulations of the SEC.

EBITDA and Adjusted EBITDA

“EBITDA” and “Adjusted EBITDA” are non-GAAP financial measures. We define EBITDA as net income or loss before interest expense, taxes, depreciation, depletion and amortization. We define Adjusted EBITDA as EBITDA prior to accretion of asset retirement obligations, ceiling test write downs of oil and gas properties, non-cash stock-based compensation expense and the gain or loss on sold investments or properties. EBITDA and Adjusted EBITDA is consolidated including non-controlling interests and as used and defined by us, may not be comparable to similarly titled measures employed by other companies and are not measures of performance calculated in accordance with GAAP. EBITDA and Adjusted EBITDA should not be considered in isolation or as a substitute for operating income, net income or loss, cash flows provided by or used in operating, investing and financing activities, or other income or cash flow statement data prepared in accordance with GAAP. EBITDA and Adjusted EBITDA provide no information regarding a company’s capital structure, borrowings, interest costs, capital expenditures, and working capital movement or tax position. EBITDA and Adjusted EBITDA do not represent funds available for discretionary use because those funds are required for debt service, capital expenditures, working capital, income taxes, franchise taxes, exploration and development expenses, and other commitments and obligations. However, our management believes EBITDA and Adjusted EBITDA are useful to an investor in evaluating our operating performance because these measures are widely used by investors in the oil and natural gas industry to measure a company’s operating performance without regard to items excluded from the calculation of such term, which can vary substantially from company to company depending upon accounting methods and book value of assets, capital structure and the method by which assets were acquired, among other factors; and help investors to more meaningfully evaluate and compare the results of our operations from period to period by removing the effect of our capital structure from our operating structure; and are used by our management for various purposes, including as a measure of operating performance, in presentations to our board of directors, as a basis for strategic planning and forecasting and by our lenders pursuant to a covenant under our credit facility.

There are significant limitations to using EBITDA and Adjusted EBITDA as a measure of performance, including the inability to analyze the effect of certain recurring and non-recurring items that materially affect our net income or loss, the lack of comparability of results of operations of different companies and the different methods of calculating EBITDA and Adjusted EBITDA reported by different companies.

Carbon Strategy

- **Emphasize Health, Safety and Environmental best practices and compliance**
- **Acquire and develop oil and gas producing assets**
 - **Appalachian Basin**
 - **Ventura Basin**
- **Build value from acquired assets through**
 - **Lease operating expense reductions**
 - **Gathering and compression optimization**
 - **Return to production projects**
 - **Recompletions**
 - **Operational synergies**
- **Utilize science and technology to develop assets with highest rate of return on capital invested**
- **Develop assets through drilling as commodity prices warrant**
- **Maintain favorable debt metrics and financial flexibility**
- **Management team has long-term successful track record of creating value for its shareholders and partners**
- **Strong technical team with acquisition, production and drilling expertise**

Carbon Growth Strategy

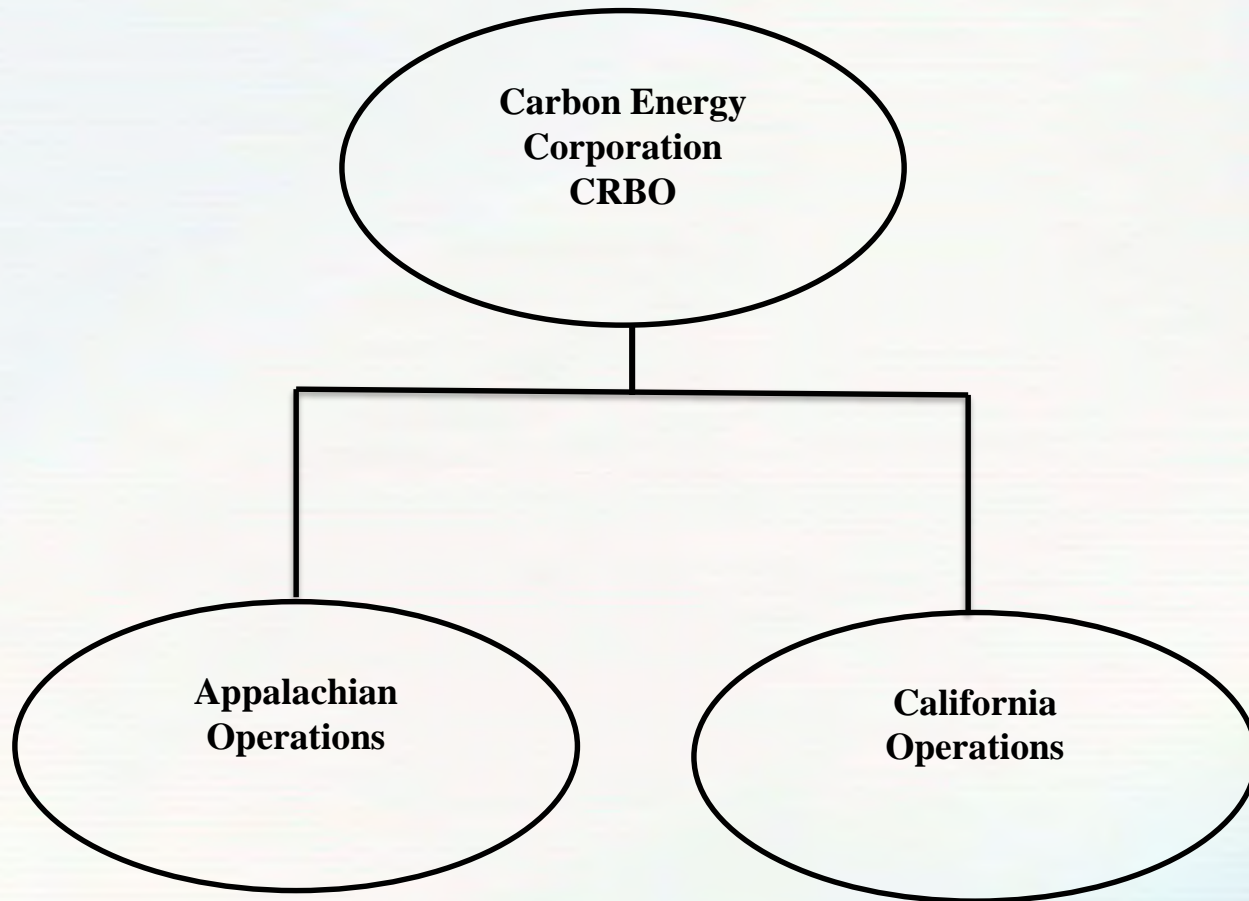
Acquire and Develop

Appalachian Basin

- Legacy producers are divesting southern Appalachia production and midstream assets.
- This creates opportunity to acquire and develop producing and midstream assets and consolidate a southern Appalachian position.
- Extensive field development opportunities exist within the company's existing properties.

Ventura Basin, California

- Legacy producers are divesting Ventura Basin production and midstream assets.
- This creates an opportunity to acquire and develop a portfolio of light oil, low operating cost producing properties.
- Extensive field development opportunities exist within the company's existing properties.

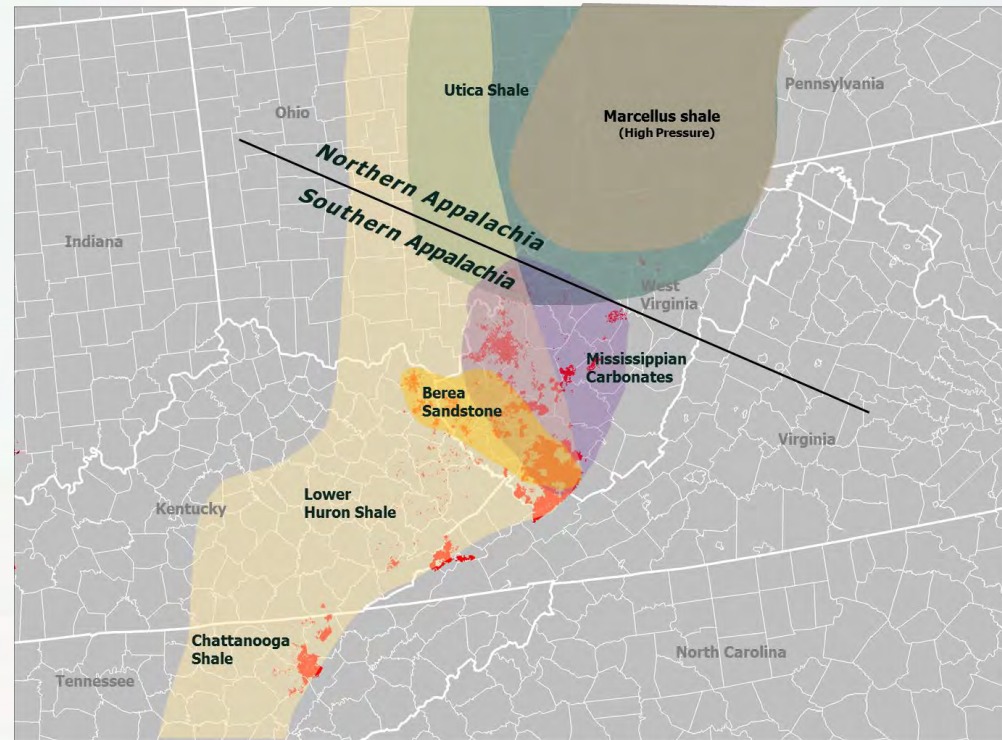


Southern Appalachian Basin Investment Strategy

Northern and Southern Appalachia are both historical producing regions.

Both have same geologic history and similar producing formations.

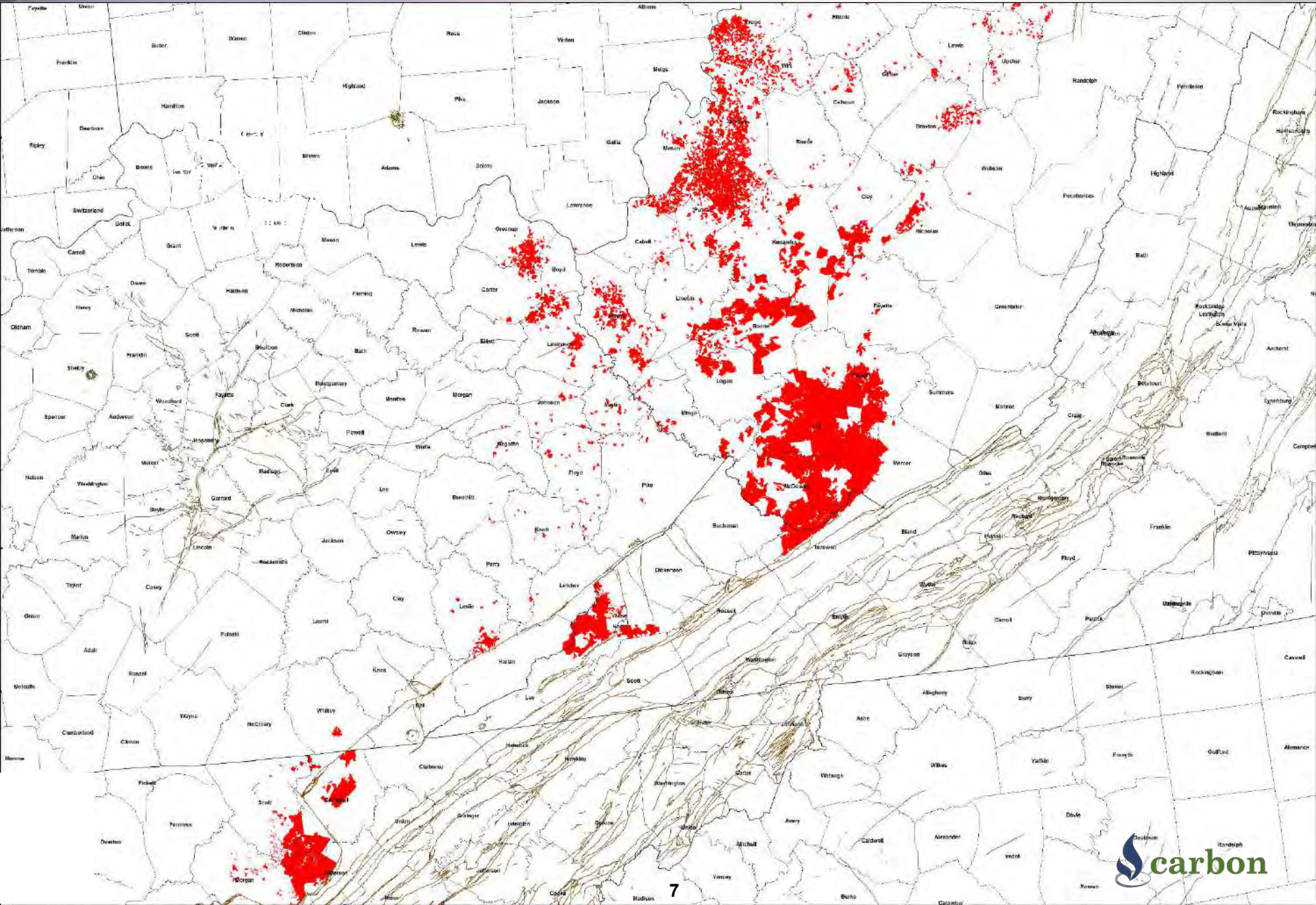
- ***Marcellus and Utica Shales in North***
 - ✓ Very high land, drilling and completion costs
 - ✓ Low gas price netback
 - ✓ Highly competitive
- ***Huron/Chattanooga Shale in the South***
 - ✓ Reasonable costs
 - ✓ Attractive gas price netback
 - ✓ Lack of competition



Exploration and production companies are divesting legacy production in Southern Appalachia to focus on the Marcellus and Utica Shales in the north.

This creates opportunity for Carbon to acquire and develop producing assets in the south, build on existing operations, and to consolidate Southern Appalachian position.

Carbon Appalachian Basin Assets



Carbon Appalachian Basin Operations

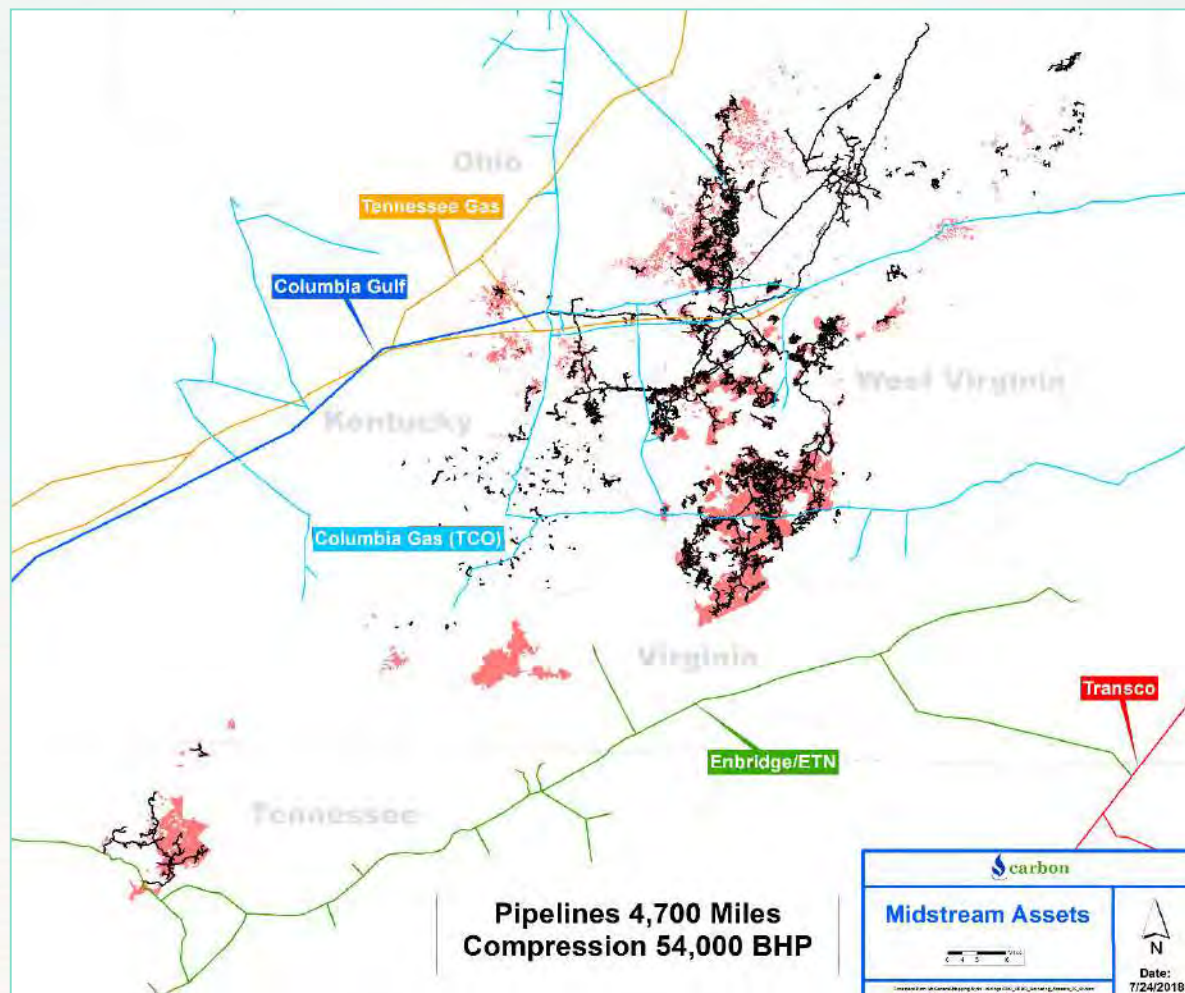
- **Approximately 60,000 mcfe net daily production, 90% operated**
- **Proved reserves of 442 bcfe**
- **Interest in approximately 8,200 wells**
- **Ownership of 4,700 miles of midstream gathering pipelines and associated compression facilities**
- **Multiple direct connect end use customers and transportation pipeline interconnects**
- **Operation of natural gas storage facilities enhances midstream operations**
- **Approximately 1,650,000 net acres of oil, gas and/or coalbed methane rights**
 - **73% Held by Production**
 - **80% of remainder expires later than 5 years**
- **Extensive Inventory of Field Development Projects**
 - **Berea Sandstone Oil**
 - **Lower Huron Shale**
 - **Chattanooga Shale**
- **Low lease operating expenses**
- **High BTU natural gas in close proximity to market, average netback price Nymex \$(0.25)/mmbtu**

Southern Appalachia | *Midstream Business Segment*

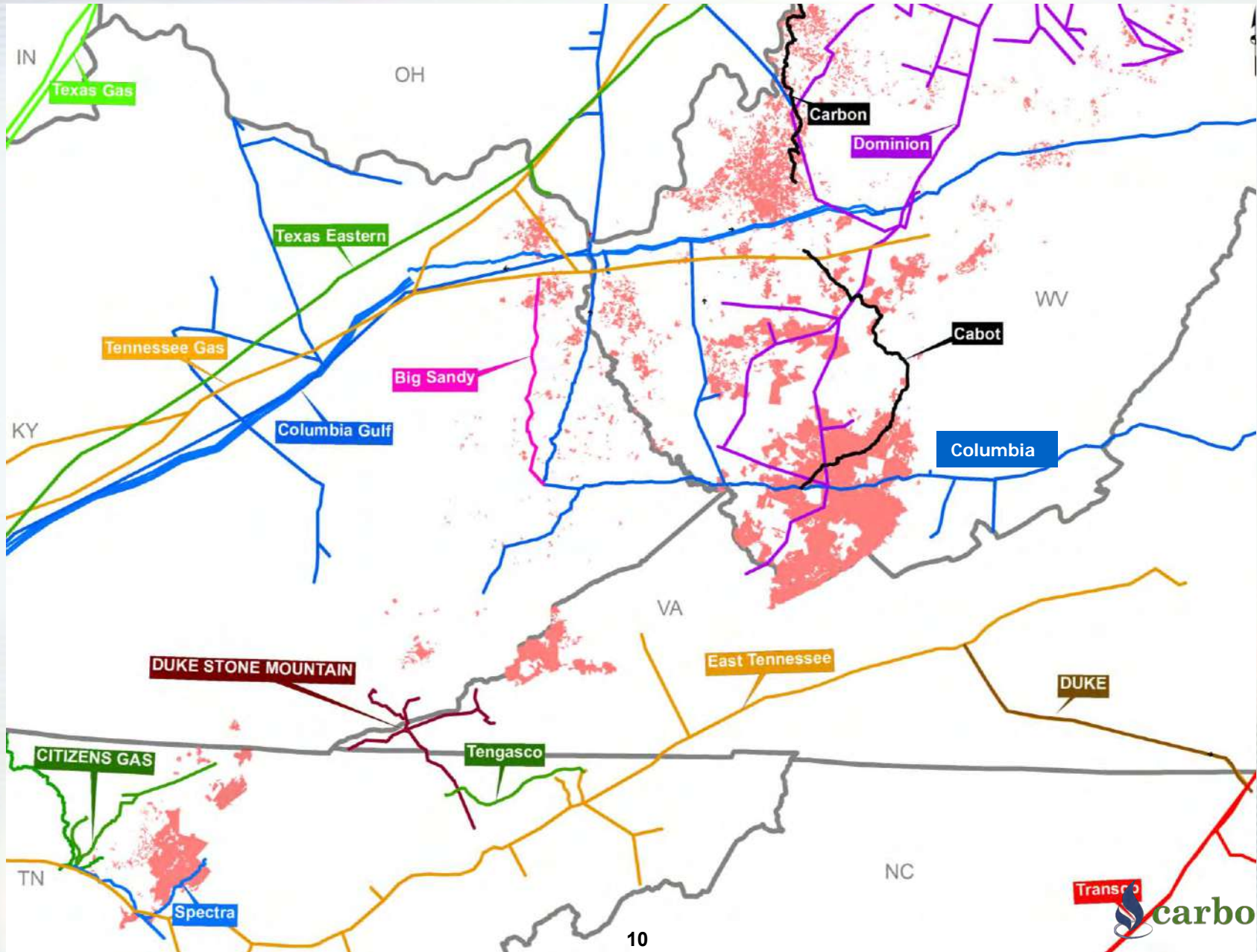
Overview

- System transports over 90 MMcf/d
- Direct on system industrial end use customers
- Carbon owned gas storage facilities provide direct end user sales flexibility and gas marketing opportunities
- Extensive gathering and compression system basin wide
 - Gas Gathering: 4,700 miles of pipe
 - Compression: 54,000 BHP
- Access to 3rd party pipelines (TCO, ETN, DTI) provide gas marketing and index arbitrage opportunities
- Firm transport agreements on main line transportation pipelines

Asset Locator Map



Transportation Pipeline Access



California Oil and Gas Basins



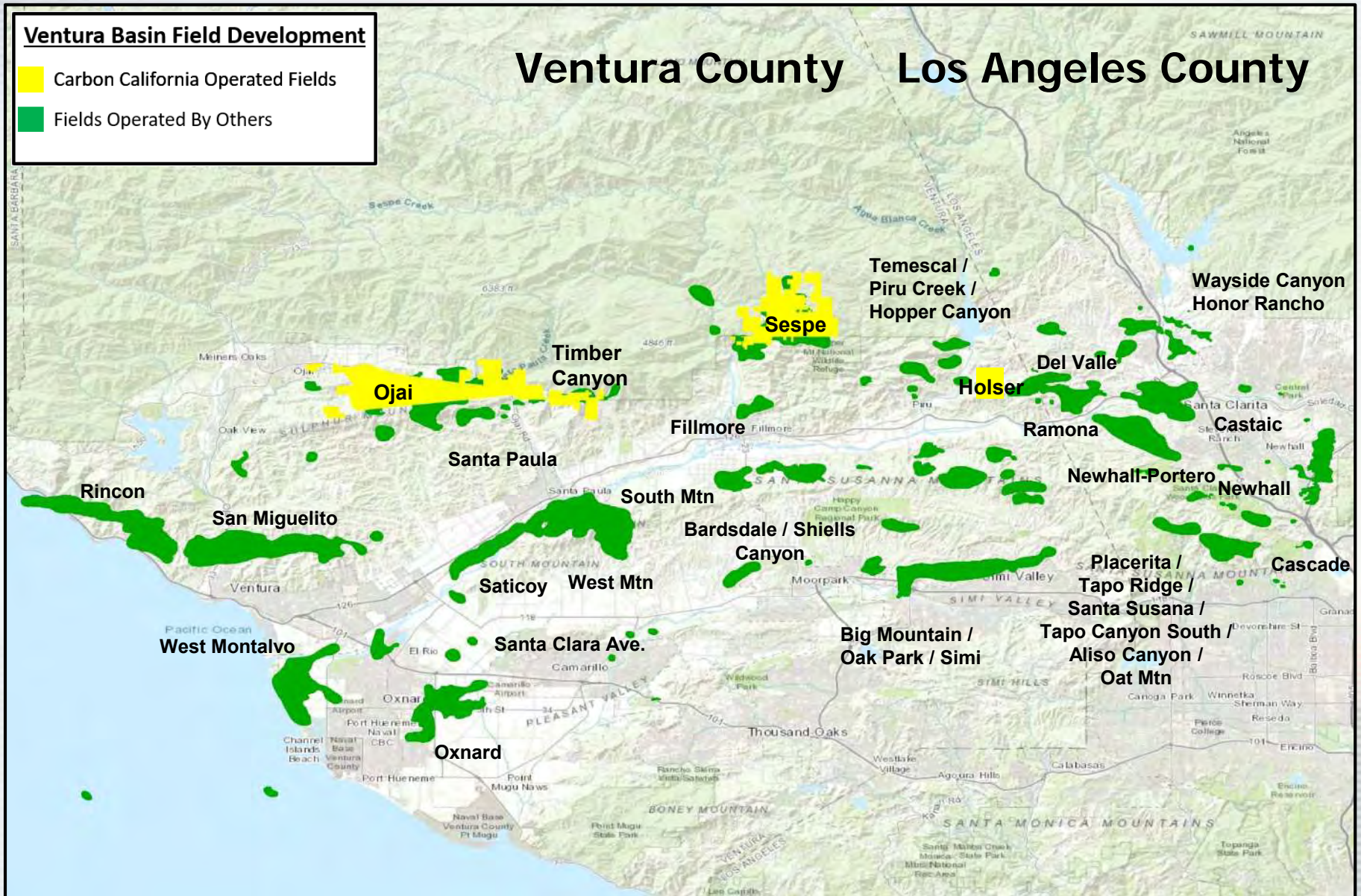
Ventura Basin

Ventura County

Los Angeles County

Ventura Basin Field Development

- Carbon California Operated Fields
- Fields Operated By Others



Ventura Basin Investment Strategy

- Carbon has identified the Ventura Basin of California as an area which presents an excellent opportunity to acquire and develop a portfolio of light oil, low operating cost producing properties
- Carbon has acquired Ojai Field, Timber Canyon Field, Holser Field and Sespe Field assets, and is currently implementing production optimization programs and field development
- Carbon will grow the asset base through low-risk exploitation and development of the properties

➤ California Acquisition Criteria

- Shallow decline, long life reserves
- Low capital maintenance requirements
- Multipay “conventional” producing formations
- No thermal / steam flood operations
- Light crude oil
- Low water cut
- Shallow depth (2,000’ to 6,500’)
- Permitted water management systems
- Favorable land and regulatory environment

Carbon Ventura Basin California

- **1,400 barrels of oil and liquids per day and 1,860 mcf of gas per day net production, 100% operated**
- **Proved reserves of 23.1 million barrels of oil equivalent (84% oil and NGL)**
- **Interest in approximately 570 wells**
- **Approximately 17,000 net acres of oil, gas rights**
 - **100% Held by Production**
 - **7,700 mineral fee acres**
- **Multiple producing horizons**
- **Low lease operating expenses**
- **Brent oil price**
- **Inventory of Return to Production, Behind Pipe Recompletion and Proved Undeveloped drilling projects**
- **Operating cost improvements through facility consolidation**



1700 Broadway Suite 1170 Denver, CO 80290
2480 Fortune Drive, Suite 300 Lexington, KY 40509
270 Quail Ct, Suite B Santa Paula, CA 93060

www.carbonenergycorp.com

EXHIBIT 12

INTERIM VARIANCE ORDER NUMBER

Page 1

BEFORE THE HEARING BOARD
OF THE
VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
STATE OF CALIFORNIA

In the matter of the application of:

Carbon California Operating Company
270 Quail Ct, Suite B
Santa Paula, CA 93060

For a variance from:

Rule 29.C, Conditions on Permits –
Violation of Condition 3

APCD Permit to Operate No. 00939

Hearing Board Case No. 878

ORDER
GRANTING
INTERIM VARIANCE

Granted: August 26, 2019

Effective to: November 22, 2019

On August 12, 2019, PETITIONER CARBON CALIFORNIA OPERATING COMPANY (Carbon), filed with this Hearing Board petitions for Interim and Regular Variances pursuant to California Health and Safety Code Section 42350(a). The petitioner requested that the Hearing Board grant an interim variance from District Rule 29.C, Conditions on Permits – Violation of Permit to Operate (PO) No. 00939, Condition 3.

Petitioner is requesting authorization to continue operating the permitted 18.0 million British Thermal Units per hour (MMBTU/hr) Waste Gas Flare with excess emissions. A regular variance hearing will be held on or before November 22, 2019. Notice of the application and hearing is not required for interim variances.

On August 26, 2019, a hearing on the petition for variance was held. The Ventura County Air Pollution Control District (District) was represented by Mr. Keith Macias, Compliance Manager, and Ms. Michelle Wood, Supervising Air Quality Specialist. The Petitioner was represented by Mr. Scott Price, President, Carbon, Mr. Luke Faith, Area Manager, Carbon, Ms. Jane Farkas, Director of Land & Regulatory Affairs, Carbon, and Mr. Rob Alfaro, Vice President, Sespe Consulting. All persons, including the public, were given the opportunity to give testimony or make comment.

INTERIM VARIANCE ORDER NUMBER

Page 2

The Hearing Board heard testimony on the "good cause" issue set forth in Section 42351(b) of the California Health and Safety Code. Section 42351(b) states in part: "An interim variance may be granted for good causes stated in the order granting such a variance."

The Hearing Board declared the hearing closed after receiving testimony and took the matter under submission for decision. The Hearing Board made the following findings of fact.

EQUIPMENT AND LOCATION

1. Petitioner is in the business of producing and separating crude oil and natural gas. Carbon's Clark and West Leases, Timber Canyon is located in a remote area north of the City of Santa Paula, Ventura County, California.
2. The subject equipment consists of a 18.0 MMBTU/hr Waste Gas Flare, authorized by District Permit to Operate number 00939.

BACKGROUND

Natural gas is a byproduct of crude oil production. Gas may be collected from oil wells and storage tanks, compressed and sent to sales via a pipeline. When it is not possible to sell the natural gas, due to sales pipeline problems or electrical failure, the produced gas must be flared, or the entire facility must be shut down.

The emission source authorized by District PO number 00939 is one 18.0 MMBTU/hr Waste Gas Flare. The flare is used to manage produced gas attendant to oil-gas production operations. As opposed to "stacking" gas, which can impact the environment and present a safety hazard and is prohibited by District Rules. The flare provides an effective way to temporarily manage gas from operations attendant to oil-gas production, maintenance activities, and ancillary operating and processing when it cannot be sent via pipeline.

Carbon and California Resources Petroleum Corporation (CRC) are parties to a Gas Treating and Purchase Agreement dated September 19, 2002, where Carbon sends the natural gas produced to CRC for processing and sales to the Southern California Gas Company (SoCal Gas).

On June 26, 2019, CRC notified Carbon that, due to a SoCal Gas project that includes the relocation and repair to the main pipeline that CRC delivers gas to, SoCal Gas has significantly reduced the amount of gas that CRC can deliver into the existing pipeline. Due to this "force majeure" event, CRC indicated that it temporarily would not accept gas

from Carbon into the CRC pipeline system as of June 27, 2019. This limitation on Carbon's gas deliveries will continue until SoCal Gas has completed the relocation and repairs of the main pipeline or until CRC develops an alternative pipeline option. There are no current alternative sales gas lines available to Carbon. The event was unexpected and completely out of Carbon's control.

On June 27, 2019, CRC shut-in Carbon and stopped receiving natural gas from Carbon's pipelines. Since June 27, 2019, Carbon has flared its gas consistent with Carbon's allowed fuel consumption limit for the flare under District PO number 00939.

On July 2, 2019, Carbon informed the District that they believed the unexpected SoCal Gas event will eventually cause an exceedance of the permitted fuel consumption limit for the flare.

On August 12, 2019, Carbon filed an interim variance petition with the Clerk of the Board, as well as a regular variance petition. Carbon is seeking a variance because CRC's gas processing system, which is the only market for produced gas from Carbon's existing fields, is currently constrained. Carbon currently has no other feasible option than to flare the gas until the pipelines to CRC are available for processing. Carbon currently has no other alternative means to dispose of the produced gas. Additionally, there are no mitigation measures available.

Carbon intends to come into compliance by feeding natural gas back into the line to CRC as soon as CRC allows the produced gas back in. Carbon has also been in communication with CRC regarding the potential for tying into an alternative SoCal Gas sales line. CRC is currently in the process of permitting additional equipment with the District and Ventura County Planning that will enable Carbon to feed natural gas into the line to CRC in the near term and before the completion of the SoCal Gas project. CRC is working with the County of Ventura to ensure that this alternative be permitted as soon as possible. CRC notified Carbon that this alternative gas line may be available for Carbon to access as soon as October. In addition, CRC recently completed a project involving a high-pressure line that has facilitated Carbon's natural gas transmission into that line from the temporarily shut-in Sespe Field Leases and the flaring at that site associated with this unexpected event has already ceased.

RULE REQUIREMENTS AND VIOLATIONS

The operations at the facility are subject to California statutes and District Rules and Regulations. The following District Rule is applicable to this Interim Variance.

INTERIM VARIANCE ORDER NUMBER

Page 4

District Rule 29.C, Conditions on Permits - Violation of Permit Conditions, requires permit holders to comply with the conditions on their permits. Carbon's PO No. 00939, Condition 3 states in part:

“Gas consumption for the emergency flare shall not exceed 11.8 million cubic feet (MMCF) of gas per year for any planned flaring events. There is no limit for emergency use. Emergency use is defined as disposal of process gasses in the event of unavoidable process upsets.... If a process upset (emergency use) cannot be rectified in a reasonable amount of time, the use of the flare may be determined to be a planned flaring event.”

If Carbon continues to operate the oil production equipment at the Clark and West Leases, Timber Canyon, natural gas will be produced and must be controlled through flaring. Continued operation of the Clark and West Leases will exceed PO Number 00939, Condition 3 flaring limit and Carbon will be in violation of District Rule 29.C until the pipelines to CRC are available for processing.

GOOD CAUSE

The SoCal Gas line shut down and “force majeure” event was unexpected and completely out of Carbon's control. Carbon has no control of the pipeline and both CRC and SoCal Gas' schedule is beyond Carbon's control. Carbon must wait for the pipeline to go back into service before Carbon can resume sale to CRC through the pipelines. Carbon currently has no other alternative means to dispose of the produced gas.

An interim variance is required for Carbon to maintain its existing operations, which include other wells in the Ojai Field Leases that are also affected by the SoCal Gas project, and to ensure that Carbon meets its financial obligations, including lease payments and remaining in business. If Carbon is not granted an interim variance, it will have to shut-in all the well casings to prevent further flaring of the produced gas until such time that permit authorizations allow further flaring (i.e., when higher months of flared gas drop off from the rolling 12-months), which will cause approximately \$100,000 in daily economic loss for Carbon for all of the affected fields as well as lost time for operations staff and contractors.

The Timber Canyon field produces approximately \$300,000 in revenue each month. This is approximately 12-percent of Carbon's total revenue for California productions. Combined with the shut-in of the Ojai Field Leases (that are also under force majeure) shutting in the wells would be detrimental to Carbon's business. If this variance (along with the Ojai variance petition) is not granted, 90-percent of Carbon's active wells would be shut in, which would put Carbon out of business because it would not be able to fulfill its financial obligations.

INTERIM VARIANCE ORDER NUMBER

Page 5

Furthermore, there are currently 11 Carbon field employees who work in the Ojai/Timber Canyon fields that would be laid-off if Carbon's pending interim variance petitions are not granted. Carbon operations also include approximately 15 support companies that provide services to the Ojai/Timber Canyon field operations.

The overall cost of continued shut-in would result in \$3 million per month loss for Carbon. This would be detrimental to its business, force employee layoffs and risk potential closure. Requiring immediate compliance would result in an unreasonable taking of property or the practical closing of a lawful business. Requiring immediate compliance would result in an unreasonable taking of property or the practical closing of a lawful business.

Carbon has given consideration to curtailing operations in lieu of obtaining a variance but for the following reasons it has been unable to do so: (1) the only option to flaring in this case is to shut-in the producing wells, (2) shutting in the producing wells, even temporarily, can result in a buildup of corrosion, scale, and, when the well is brought back online, there is a high risk of sand entering the well bore, which can cause mechanical problems with the pump, (3) the cost to correct each aforementioned issue can range from \$20,000 - \$40,000 per well and (4) there would also be additional exhaust emissions attendant to the servicing equipment that would be necessary to address.

Flaring is the only feasible solution that will reduce excess emissions to the maximum extent feasible during the variance period pursuant to District Rule 71.1.C, Crude Oil Production and Separation, Requirements - Produced Gas, which requires that emissions of produced gas shall be controlled at all times using a properly maintained and operated system that directs all produced gas, except gas used in a tank battery vapor recovery system, to one of the following: a fuel or sales gas system, a flare that combusts reactive organic compounds, or a device with an ROC destruction or removal efficiency of at least 90 percent by weight.

Carbon will continue monitoring of the flared gas via a Total Flow meter and quantify the emissions via emission factors for a flare. Carbon will submit flaring data to the District with weekly reports.

The flare at issue in this variance petition is located in a remote area north of the City of Santa Paula in Ventura County. The southern boundary of the oilfield is approximately 3 miles from the city. The closest residence to the flare has been reported to be 1.2 miles away and the closest school 2.85 miles away. A nuisance as specified in Rule 51 is not expected to occur during this flaring event. Continued operation is not likely to create an immediate threat or hazard to public health or safety.

FINDINGS OF FACT

The Hearing Board found that there was good cause to grant an interim variance because pursuant to Health and Safety Code Section 42352, and District Rule 123, "Findings, Variance or Abatement Order," the following findings have been made:

1. The petitioner is, or will be, in violation of Health and Safety Code Section 41701 or District Rule 29.C.
2. The violation is due to conditions beyond the reasonable control of the petitioner.
3. Requiring immediate compliance would result in either an arbitrary or unreasonable taking of property or the practical closing of a lawful business.
4. The closing or taking would be without a corresponding benefit in reducing air contaminants.
5. Petitioner has given consideration to curtailing operations in lieu of obtaining a variance.
6. Petitioner will reduce excess emissions to the maximum extent feasible during the variance period.
7. Petitioner will monitor or otherwise quantify emission levels from the equipment during the variance period, if requested to do so by the District, and report these emission levels to the District pursuant to a schedule established by the District.
8. A nuisance as specified in Rule 51 is not expected to occur.
9. Continued operation is not likely to create an immediate threat or hazard to public health or safety.

Further evidence shall be provided by the petitioner regarding items 2 through 9 at the noticed hearing that will be scheduled on or before November 22, 2019.

CONCLUSIONS AND ORDER

NOW, THEREFORE, the HEARING BOARD FINDS AND CONCLUDES THAT GOOD CAUSE HAS BEEN SHOWN AND ORDERS that Carbon is granted an Interim Variance from Rule 29, Conditions on Permits, Section C, Violation of Permit Condition 3 for its Clark and West Leases 18.0 MMBTU/hr Waste Gas Flare. This order will remain in effect until the Hearing Board holds a regular variance hearing and either

INTERIM VARIANCE ORDER NUMBER

Page 7

grants or denies the matter in Petition Number 879, or until compliance is demonstrated, whichever is sooner. A regular variance hearing will be scheduled on or before November 22, 2019. This variance is subject to the following conditions:

THE PETITIONER SHALL:

A. Increments of Progress

1. Carbon will continue monitoring of the flared gas via a Total Flow meter and quantify the emissions via emission factors for a flare. Carbon will submit flaring data to the District with weekly reports.
2. Carbon will provide weekly progress reports on the progress of CRC allowing Carbon's natural gas production back into the pipelines; the first report will be due by September 2, 2019.
3. Carbon will curtail gas production to the maximum extent feasible and notify the District which wells have been curtailed. Carbon will include details in weekly reports.
4. Carbon will attend a regular variance hearing on or before November 22, 2019.

B. Reporting Requirements

2. Carbon will monitor natural gas consumption during the variance and report this data to the District by December 9, 2019. Excess emissions and excess emission fees will be based on the data submitted in this report.
3. As required by District Rule 42.N, "Flaring Excess Emission Fee," payment of excess emission fees shall be submitted to the District no later than 60 days after receiving the bill.
4. All submittals and notifications to the District pursuant to this Variance Order shall be made to Ms. Michelle Wood, Ventura County Air Pollution Control District, 669 County Square Drive, Ventura, CA 93003.

C. General

1. Except as provided in this order, compliance with this Order shall not relieve Petitioner from liability under the District's Rules for any violation,

INTERIM VARIANCE ORDER NUMBER

Page 8

thereof, and shall not preclude the District from pursuing remedies in accordance with the Health and Safety Code in the event of any violation.

2. The failure to abide by any condition of this decision and Order shall subject Carbon to penalties set forth in Health and Safety Code Section 42402.
3. Each day during which a violation occurs is a separate offense.
4. Petitioner shall retain the obligation to comply with all other local, state and federal regulations not specifically referenced in this Variance Order.
5. Petitioner shall pay the Hearing Board fees specified in District Rule 41.

Stephen Craig Hurlock AYE

Daniel Joseph Murphy AYE

Michael David Stubblefield, Chair AYE



VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
MICHAEL DAVID STUBBLEFIELD, HEARING BOARD CHAIR

8/30/2019

DATE

EXHIBIT 13

LEROY SMITH
COUNTY COUNSEL

MICHAEL G. WALKER
CHIEF ASSISTANT

ALBERTO BOADA
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PRINCIPAL ASSISTANTS



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September 10, 2019

Board of Supervisors
County of Ventura
800 South Victoria Avenue
Ventura, California 93009

SUBJECT: Report Back and Seek Board Direction Regarding Potential Amendments to the County's Zoning Ordinances Regarding Oil and Gas Development; All Supervisorial Districts

RECOMMENDATIONS:

1. Receive and file report back regarding new oil and gas development under antiquated permits; and
2. Provide direction to County staff on potential amendments to the County's zoning ordinances to: (a) require discretionary approval of new oil and gas development; and (b) clarify the applicability of the County's oil development standards.

FISCAL/MANDATES IMPACTS: None.

DISCUSSION:

On April 9, 2019, the Board of Supervisors ("Board") gave two directions to staff. One, your Board directed staff to prepare an interim urgency ordinance for your Board's consideration regarding the drilling of new wells, and the re-drilling of existing wells, that would utilize steam injection in the vicinity of potable groundwater aquifers. On April 23 and June 4, 2019, your Board approved and then extended an interim urgency ordinance prohibiting County approval of such new oil wells, and the re-drilling of such existing wells, on a portion of the Oxnard Plain overlying the Fox Canyon aquifer. This interim urgency ordinance will remain in effect until December 7, 2019, unless further extended by your Board.

County of Ventura
Planning Commission Hearing
PL19-0003 and PL19-0041
Exhibit 24 - 9-10-19 Report to BOS re Potential
Amendments to Ordinances for Oil
and Gas Development

Two, your Board directed staff to “study potential amendments to the County’s zoning ordinances to require discretionary approval of new development under antiquated oil and gas permits.” The purpose of this Board item is to provide an overview of the legal issues and legislative options regarding this second recommendation, and seek direction for further actions, if any.

A. COUNTY PERMITTING OF OIL AND GAS DEVELOPMENT

1. County’s Antiquated Oil and Gas Permits

Oil and gas exploration and production activities and structures have been subject to a discretionary permitting requirement from the County since adoption of the County’s first zoning ordinance in 1947. Over time the County’s zoning ordinances and standard permits have become more stringent and detailed in their regulation of this land use. Approximately 125 County discretionary permits for oil and gas exploration and production are currently active.

From 1947 through approximately 1966, the County granted discretionary “special use permits” (the predecessor to the County’s “conditional use permits”) authorizing oil and gas exploration and production. These permits describe in very general terms the oil and gas-related activities and structures that are authorized within often large permit areas. They typically contain some variation of the following grant of authority:

Drilling for and extraction of oil, gas and other hydrocarbon substances and installing and using buildings, equipment, and other appurtenances accessory thereto, including pipelines, but specifically excluding processing, refining and packaging, bulk storage or any other use specified in Division 8, Ventura County Ordinance Code, requiring review and Special Use Permit.

The permits typically do not state the maximum number or exact location of allowable wells or other structures, nor do they contain expiration dates (i.e., dates by which the land use must end unless extended by the County). Because these permits were granted before enactment of the California Environmental Quality Act (“CEQA”) in 1970, none of the projects underwent CEQA review prior to initial permitting. The oil and gas permits granted by the County during this era are hereinafter referred to as “antiquated permits.” A representative antiquated permit is attached as Exhibit 1.

When a permittee seeks to add new wells or otherwise engage in new development under antiquated permits, the new development may only require a ministerial zoning clearance from the County.

2. County's Modern-Era Oil and Gas Permits

From approximately 1966 through the 1970's, the County utilized a new discretionary conditional use permit form with more detailed and stringent conditions as compared to the antiquated permits. The conditional use permits from this era typically only authorize the drilling and operation of a limited number of drill sites, wells and/or other structures; require discretionary County approval for all subsequent development; and contain permit expiration dates. Beginning in the early 1980's and continuing to present, the County's conditional use permits typically specify the exact number and location of all authorized wells and other appurtenant structures; impose more detailed and comprehensive conditions; and contain permit expiration dates.

When a permittee seeks to add new wells or otherwise engage in new development under conditional use permits granted by the County from approximately 1966 to present ("modern-era permits"), the new development typically requires a discretionary permit modification.

3. Ministerial Versus Discretionary Decisions

The distinction between ministerial and discretionary land use decisions is important to a full understanding of the County's regulation of oil and gas development. A ministerial decision is made by determining whether the request conforms to objective standards without the exercise of judgment or opinion by the decision-maker. In contrast, a discretionary decision is made by applying broader subjective standards through the exercise of judgment and opinion by the decision-maker. CEQA can apply to discretionary, but not to ministerial, land use decisions. Consequently, only discretionary permitting decisions can require some level of environmental review under CEQA. In addition, only discretionary permitting decisions involve the public noticing of, and a public hearing regarding, the permit request. Discretionary permitting decisions, unlike ministerial ones, also enable the County to impose permit conditions and mitigation measures to address environmental, land use compatibility, and other issues regarding the proposed development.

4. County's Approval of New Oil and Gas Development

Under the County's current zoning ordinances, a brand-new oil and gas development must be authorized by a discretionary conditional use permit. (See Non-Coastal Zoning Ordinance ["NCZO"], §§ 8105-4 and 8105-5, under heading "Mineral Resource Development," and subheading "Oil and Gas Exploration and Production"; Coastal Zoning Ordinance ["CZO"], § 8174-5, under heading "Oil and Gas: Exploration and Production.") Likewise, any material change to an existing modern-era oil and gas permit requires County discretionary approval in the form of a permit modification. (See NCZO, § 8111-6.1; CZO, § 8181-10.4.)

In contrast, requests to conduct new oil and gas development under active antiquated permits may only be subject to the County's ministerial zoning clearance process.¹ The primary standard for determining if a zoning clearance is to be issued in this context is whether the proposed development is consistent with and authorized by the underlying antiquated permit, and complies with the County's applicable zoning ordinance provisions and General Plan policies. (See NCZO, § 8111-1.1.1b; CZO, § 8181-3.1a). Making the permit consistency determination requires a fact-intensive analysis regarding each antiquated permit and zoning clearance request, which can be challenging given the age of the antiquated permits, potential uncertainty over a permit's status (i.e., whether it is active or has been abandoned), the fact that permit boundaries often overlap, and the fact that some antiquated permits may only authorize oil production at certain subsurface depths. Nonetheless, many new oil and gas development requests meet the consistency standard (and comply with applicable zoning provisions and General Plan policies) because, as explained above, antiquated permits typically broadly authorize oil and gas exploration and production structures and activities within the permit area.

Similarly, requests for new oil and gas development under antiquated permits often do not require a discretionary permit modification under the County's existing zoning ordinances because, unlike the County's more modern oil and gas permits (i.e., those granted from approximately 1966 to present), antiquated permits typically do not limit the number of wells and other structures, do not contain expiration dates, and do not contain other express limiting terms and conditions that must be changed in order to authorize the requested development. Consequently, the County often issues ministerial zoning clearances authorizing new oil and gas development under antiquated permits.

B. COUNTY'S ABILITY TO REQUIRE DISCRETINARY APPROVAL OF NEW DEVELOPMENT UNDER ANTIQUATED PERMITS

1. General Rule on Vested Rights

The County has a good legal argument that it can, in general, require newly proposed oil and gas development under antiquated permits to obtain authorization through a discretionary permit modification. Holders of antiquated permits may argue otherwise by claiming to possess vested rights to expand the oil and gas operations without the need for discretionary County approval. The County, however, has a good legal position that holders of typical antiquated permits generally do not have vested

¹ Some antiquated permits have been modified over time and now include more modern conditions, such as specific well limits and expiration dates. New development proposed under such modified permits typically must be approved through the discretionary permit modification process.

rights to engage in new oil and gas development based solely on the original antiquated permits, as explained below.²

Vested rights are based on a permittee's reasonable reliance on a government permit or approval describing a specific development project. Once a permittee has obtained the permit or approval, and has commenced work on the development, the government is estopped (i.e., prohibited) from preventing completion of the work pursuant to subsequently enacted legislation. The seminal California case on vested rights is *Avco Community Developers, Inc. v. South Coast Regional Commission* (1976) 17 Cal.3d 785 ("*Avco*").³

Under *Avco* and subsequent cases, a developer acquires a vested right to complete a particular work of improvement, regardless of a subsequent change in the law, when: (1) the appropriate government agency reviews, approves and issues a grant of authority or permit that specifically describes the particular work of improvement; and (2) the developer thereafter performs substantial work and expends substantial funds and/or incurs liabilities in good faith reliance on the grant or permit.

A permittee has the legal burden of establishing the existence and scope of vested rights. If a permittee establishes a vested right, the government may not, by virtue of a change in the laws, prohibit or impair development authorized by the permit or approval, unless the development presents a threat of harm, danger, menace or nuisance.⁴ Vested rights claims are fact-specific and determined on a case-by-case basis.

The above-stated requirement for a permit or approval to specifically describe the development project in order to create a vested right is a critical factor. The *Avco* court held that a governmental permit may only give rise to vested rights if the permit affords "substantially the same specificity and definition to a project as a building permit." (*Avco, supra*, 13 Cal.3d at p. 794.) *Avco's* "functional equivalent of a building permit"

² While the government can be found to have unlawfully impaired a permittee's vested rights merely by enacting a law subjecting a previously permitted development to a discretionary approval process, the permittee must possess vested rights in the proposed development in the first instance before it can be found that the government impaired vested rights in this way.

³ The court in *Avco* found the developer did not have vested rights despite spending millions of dollars in reliance on a final tract map and local zoning regulations. In response to the harsh effect *Avco's* holding had on developers, the Legislature authorized local governments to enter into binding development agreements with developers regarding project approvals. (See Gov. Code, §§ 65864 et seq.)

⁴ Even when a permittee has established vested rights, the County possesses constitutional land use authority to regulate the subject development, including by requiring compliance with most of the County's oil development standards, as explained below.

requirement is based on balancing the developer's need for certainty regarding its development proposal without unduly impairing the government's ability to address environmental concerns and regulate land use. The federal Ninth Circuit Court of Appeals has summarized this balance as follows:

"If the public is to be deprived of its power to control pollution and other problems caused by overdevelopment, it should be deprived only to the extent necessary to ensure private parties a reasonable degree of certainty about the legal status of their investments." (*Lakeview Dev. Corp. v. City of S. Lake Tahoe* (9th Cir. 1990) 915 F.2d 1290, 1299.)

2. Lack of Specificity

Given the typical antiquated permits' lack of specificity regarding the scope and composition of the development authorized by the permits, the County has a good argument the permits no longer confer vested rights to engage in *new* development. Again, these permits do not state the number or exact location of any wells or other structures that are authorized by the permits; instead, they generally authorize the permittee to conduct oil and gas exploration and production activities within the permit area. The permits are thus analogous to general zoning designations – which do not give rise to vested rights – in that they generally allow a land use to occur within an often-large area without specifying the details of a specific facility, structure, equipment or operation. Consequently, holders of these permits cannot cite to any particularly described oil and gas project as being authorized by the permits in order to satisfy this critical vested rights requirement.

On the other hand, permittees have a good position that they have acquired vested rights to continue operating *existing* oil and gas facilities that have been developed pursuant to antiquated permits. Even though the antiquated permits themselves do not specifically describe the projects that may be developed under the permits, the County has long required permittees to obtain a zoning clearance and/or building permit for each new well and related structure. Permittees with antiquated permits presumably possess vested rights to continue operating such equipment as particularly described in these zoning clearances and/or building permits in accordance with *Avco*. Permittees also have a good position that they possess vested rights to continue operating oil facilities that were lawfully established before the County began requiring a CUP, zoning clearance and/or building permit.

3. Time Period for Development

Even if vested rights in a permit are acquired, a lengthy delay by the permittee to proceed with the project on a pace reasonably close to that contemplated when the project was approved may cause the vested rights to be lost. If, contrary to our view,

broadly worded antiquated permits did convey vested rights to engage in some level of oil and gas development once perfected (absent subsequently issued zoning clearances and/or building permits more particularly describing the associated structures), the County has a good argument that the time periods for permittees to exercise these rights by building out new development under the initial antiquated permits have now expired. The antiquated permits were granted between approximately 53 and 72 years ago. Thus, permittees have had decades to build out the oil and gas projects under the initial approvals. The County has a good argument that permittees are not entitled to construct any new oil and gas development, without first obtaining discretionary County approval, because the permittees' vested rights have lapsed through unreasonable delay in completing the initially approved projects.

4. Prior County Counsel Opinion

In 2014, County Counsel addressed the issue of vested rights and antiquated permits in a memorandum attached as Exhibit 2. The issue then presented was the County's authority to impose new conditions on *existing* oil and gas operations subject to antiquated permits. For purposes of addressing that specific issue, the memorandum assumes that permittees possess some level of vested rights in antiquated permits and proceeds to explain how such vested rights constrain the County's ability to impose new permit conditions on the *existing* operations. The memorandum does not, however, address the threshold issue now presented: Whether typical antiquated permits – i.e., those with broad authorizing language that do not specify the number and location of allowable wells or other structures – give rise to vested rights in and of themselves. For the reasons stated above, County Counsel believes they typically do not.

This vested rights issue is nuanced. Even though typical antiquated permits do not confer vested rights to engage in *new* development for the reasons stated above, permittees who have developed oilfield facilities under them have presumably obtained vested rights in their *existing* wells and other structures. Consequently, the 2014 County Counsel memorandum accurately recognizes permittees' presumptive vested rights in *existing* oilfield facilities and explains how these vested rights constrain the County's ability to impose new conditions on *existing* operations.

C. POTENTIAL ZONING ORDINANCE AMENDMENTS

1. Requiring Discretionary Approval of New Development under Antiquated Permits

The County's zoning ordinances contain specific regulations for oil and gas exploration and production. (NCZO, § 8111-5; CZO, § 8175-5.7.) These regulations could be amended to require a discretionary permit modification to authorize new development proposed under typical antiquated permits, and any other discretionary County permits, that do not specifically describe and authorize the newly proposed

oilfield structures. This discretionary permit modification requirement would be in addition to the County's existing permit modification requirement which, as explained above, applies whenever a permittee seeks to change the terms and conditions of an existing discretionary permit.

Applying the County's discretionary permit modification process to new development proposed under antiquated permits would require some level of CEQA review of the proposed development and the provision of public notice and a public hearing by the County's decision-making authority regarding the request. In order to approve the proposed development, the County's decision-making authority would need to find that the proposed development meets the County's general permit approval standards (see NCZO, § 8111-1.2.1.1a; CZO, § 8181-3.5) including, among others, that the proposed development would not be detrimental to the public interest, health, safety, convenience, or welfare; would not be obnoxious or harmful; and is compatible with existing and potential land uses in the general area.

This discretionary permitting process would thereby provide the County with the ability to: (1) fully investigate and publicly disclose the potential environmental impacts of the proposed development under CEQA; (2) weigh the merits of the proposed development against its potential negative impacts in deciding whether to approve the new development; and (3) impose permit conditions on approved development to mitigate potential environmental impacts and to address relevant land use issues, including conditions developed pursuant to the County's oil development guidelines and design standards set forth at NCZO section 8107-5.5 and CZO section 8175-5.7.7.

2. Clarifying Applicability of County's Oil Development Standards

The County's oil and gas regulations could also be amended to clarify another issue implicated by antiquated permits: the applicability of the County's oil development standards. These standards regulate various operational issues such as well and equipment siting, grading, lighting, waste handling, noise, site maintenance and site restoration. (See NCZO, § 8107-5.5; CZO, § 8175-5.7.8.) The County's current zoning ordinances state that the oil development standards apply to "permits" granted or modified by the County on or after March 24, 1983, the date upon which many of the County's current oil and gas standards were adopted. However, it is sometimes not clear what County oil development standards apply to oilfield structures and operations conducted pursuant to permits granted or issued before March 24, 1983.

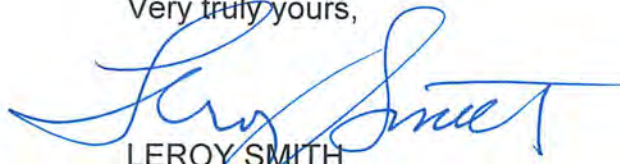
This issue can be clarified by amending the County's zoning ordinances to state that the County's oil development standards uniformly apply to all oil and gas exploration and production operations to the extent: (i) such standards would impose more stringent restrictions than those set forth in existing permit conditions, laws, or regulations applicable to the operation; and (ii) application of such standards would not impair any vested right of an operator under California law. The latter vested rights

exception is needed because certain oil development standards, such as the oil structure siting and setback requirements, could not be applied to existing facilities without potentially impairing a permittee's vested rights.

These potential zoning ordinance amendments are reflected in a draft revised version of NCZO section 8107-5.2 attached as Exhibit 3, which can be compared to the existing version of this section attached as Exhibit 4. This NCZO section, and its counterpart at section 8175-5.7.2 in the CZO, address the applicability of the County's oil and gas regulations.

This board item has been reviewed by the County Executive Office, the Auditor-Controller's Office and the Resource Management Agency Planning Division. If you have any questions, please call me at (805) 654-2581.

Very truly yours,



LEROY SMITH
County Counsel

Attachments:




- Exhibit 1 – Special Use Permit 393 Granted in 1955
- Exhibit 2 – 2014 County Counsel Memorandum
- Exhibit 3 – Draft Revised NCZO section 8107-5.2
- Exhibit 4 – Current NCZO section 8107-5.2

EXHIBIT 14



The 2013–2016 induced earthquakes in Harper and Sumner Counties, southern Kansas

Bulletin of the Seismological Society of America


By: Justin L. Rubinstein  , William L. Ellsworth  , and Sara L. Dougherty 

<https://doi.org/10.1785/0120170209>

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Abstract

We examine the first four years (2013–2016) of the ongoing seismicity in southern Kansas using high-precision locations derived from a local seismometer network. The earthquakes occur almost exclusively in the shallow crystalline basement, below the wastewater injection horizon of the Arbuckle Group at the base of the sedimentary section. Multiple lines of evidence lead us to conclude that disposal of wastewater from the production of oil and gas by deep injection is the probable cause for the surge of seismicity that began in 2013. First, the seismicity correlates in space and time with the injection. We observe increases in seismicity subsequent to increases in injection and decreases in seismicity in response to decreases in injection. Second, the

earthquake-rate change is statistically improbable to be of natural origin. From 1974 through the time of the injection increase in 2012, no M_L 4 or larger earthquakes occurred in the study area, while six occurred between 2012 and 2016. The probability of this rate change occurring randomly is $\sim 0.16\%$. Third, the other potential industrial drivers of seismicity (hydraulic fracturing and oil production) do not correlate in space or time with seismicity. Local geological conditions are important in determining whether injection operations will induce seismicity, as shown by absence of seismicity near the largest injection operations in the southwest portion of our study area. In addition to local operations, the presence of seismicity 10+ km from large injection wells indicates that regional injection operations also need to be considered to understand the effects of injection on seismicity.

Study Area



Additional publication details

Publication type Article

Publication Subtype Journal Article

Title The 2013–2016 induced earthquakes in Harper and Sumner Counties,

southern Kansas

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| First page | 674 |
| Last page | 689 |
| Country | United States |
| State | Kansas |
| County | Harper County, Sumner County |

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EXHIBIT 15

Studies link earthquakes to fracking in the Central and Eastern US

Date: April 26, 2019

Source: Seismological Society of America

Summary: Small earthquakes in Ohio, Pennsylvania, West Virginia, Oklahoma and Texas can be linked to hydraulic fracturing wells in those regions, according to researchers.

FULL STORY

Small earthquakes in Ohio, Pennsylvania, West Virginia, Oklahoma and Texas can be linked to hydraulic fracturing wells in those regions, according to researchers speaking at the SSA 2019 Annual Meeting.

While relatively rare compared to earthquakes caused by wastewater disposal in oil and gas fields in the central United States, Michael Brudzinski of Miami University in Ohio and his colleagues have identified more than 600 small earthquakes (between magnitude 2.0 and 3.8) in these states.

Brudzinski said these earthquakes may be "underappreciated" compared to seismicity related to wastewater disposal since they appear to happen less frequently. He and his colleagues are studying the trends related to the likelihood of induced seismicity from hydraulic fracturing or fracking, which could help industry and state regulators better manage drilling practices.

Unconventional U.S. oil production, which extracts oil from shales and tight rocks using a variety of drilling techniques, has been linked to an increase in human-induced earthquakes across the mid-continent of the United States for nearly a decade. Researchers studying the increase in places such as Oklahoma think that the main driver of this increase in seismicity is the injection of wastewater produced by extraction back into rock layers, which increases pore pressure within rocks and can affect stress along faults in layers selected for disposal.

Hydraulic fracturing uses pressurized liquid to break apart or create cracks within a rock formation through which petroleum and natural gas can flow and be more easily extracted.

In the eastern half of Ohio and other parts of the Appalachian Basin, where there has been a dramatic rise in natural gas production over the past two decades, fracking wells are more prevalent than wastewater disposal wells, in part because the geological layers that contain oil and gas are not as wet as in places like Oklahoma, reducing the need for wastewater disposal.

The numerous fracking wells in eastern Ohio prompted Brudzinski and his colleagues to take a closer look at whether small earthquakes in the region could be connected to fracking operations. "The wells are more widely spaced when they're active, and there isn't as much wastewater disposal going on," Brudzinski explained, "so you can see a bit more specifically and directly when wastewater disposal is generating seismicity and when hydraulic fracturing is generating seismicity in the Appalachian Basin."

The scientists used a technique called multi-station template matching, which scans through hundreds of seismic signals to find those that match the "fingerprint" of known earthquakes. The technique allowed them to detect small earthquakes that might have otherwise been overlooked, and to compare the more complete earthquake catalog in a region to information on the timing and location of regional fracking well operations.

Seismologists identify earthquakes as being caused by hydraulic fracture wells when they are tightly linked in time and space to fracking operations. Fracking-related seismicity also tends to look different from seismicity caused by wastewater disposal, Brudzinski said.

"The [fracking] seismic signature when you look at it in a sort of timeline shows these bursts of seismicity, hundreds or sometimes thousands of events over a couple of days or weeks, and then it's quiet again. You don't tend to see that pattern with wastewater disposal," he explained.

Brudzinski and his colleagues are now using their dataset from Oklahoma to look at how a variety of variables might affect the likelihood of fracking-induced earthquakes, from the volume and viscosity of the injected liquid to the depth of the rock layers targeted by fracking.

"The one that has stuck out to us the most is that the depth of the well is more tied to likelihood of seismicity than we expected," Brudzinski said.

It isn't just the deeper the well, the more likely it is to be closer to basement rock and mature faults that are likely to slip, he said, although that might still play a role in these earthquakes. Instead, overpressuring appears to have a stronger correlation with fracking-induced seismicity. Overpressuring occurs when there is high fluid pressure within rocks buried deep in a basin by many overlying rock layers. "It's one of the strongest trends we saw," said Brudzinski.

The researchers have discussed some of their findings with colleagues in Canada and China, where induced seismicity from fracking operations are being studied closely. "We are doing that kind of international comparison to get a better handle on the salient features and trends that aren't just tied to a specific location," said Brudzinski.

Story Source:

Materials provided by **Seismological Society of America**. *Note: Content may be edited for style and length.*

Cite This Page:

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Seismological Society of America. "Studies link earthquakes to fracking in the Central and Eastern US." ScienceDaily. ScienceDaily, 26 April 2019. <www.sciencedaily.com/releases/2019/04/190426110601.htm>.

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EXHIBIT 16



Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)

Sixth Edition

June 2019



Fracking rigs off of Interstate 20
West of Midland, Texas, in the Permian Basin ©2018 Julie Dermansky

The Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (the Compendium) is a fully referenced compilation of evidence outlining the risks and harms of fracking. It is a public, open-access document that is housed on the websites of Concerned Health Professionals of New York (www.concernedhealthny.org) and Physicians for Social Responsibility (www.psr.org).

The five earlier editions of the Compendium have been used and referenced all over the world. The Compendium has been twice translated into Spanish: independently in 2014 by a Madrid-based environmental coalition, followed by an official translation of the third edition, which was funded by the Heinrich Böll Foundation and launched in Mexico City in May 2016. The Compendium has been used in the European Union, South Africa, the United Kingdom, Australia, Mexico, and Argentina.

About Concerned Health Professionals of New York

Concerned Health Professionals of New York (CHPNY) is an initiative by health professionals, scientists, and medical organizations for raising science-based concerns about the impacts of fracking on public health and safety. CHPNY provides educational resources and works to ensure that careful consideration of science and health impacts are at the forefront of the fracking debate.

About Physicians for Social Responsibility

Working for more than 50 years to create a healthy, just, and peaceful world for both present and future generations, Physicians for Social Responsibility (PSR) uses medical and public health expertise to educate and advocate on urgent issues that threaten human health and survival, with the goals of reversing the trajectory towards climate change, protecting the public and the environment from toxic chemicals, and addressing the health consequences of fossil fuels. PSR was founded by physicians concerned about nuclear weapons, and the abolition of nuclear weapons remains central to its mission.

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About this Report

The Compendium is organized to be accessible to public officials, researchers, journalists, and the public at large. The reader who wants to delve deeper can consult the reviews, studies, and articles referenced herein. In addition, the Compendium is complemented by a fully searchable, near-exhaustive citation database of peer-reviewed journal articles pertaining to shale gas and oil extraction, the Repository for Oil and Gas Energy Research, that was developed by PSE Healthy Energy and which is housed on its website (<https://www.psehealthyenergy.org/our-work/shale-gas-research-library/>).

For this sixth edition of the Compendium, as before, we collected and compiled findings from three sources: articles from peer-reviewed medical or scientific journals; investigative reports by journalists; and reports from, or commissioned by, government agencies. Peer-reviewed articles were identified through databases such as PubMed and Web of Science, and from within the PSE Healthy Energy database. We included review articles when such reviews revealed new understanding of the evidence.

Written in non-technical language, our entries briefly and plainly describe studies that document harm, or risk of harm, associated with fracking and summarize the principal findings. Entries do not include detailed results or a critique of the strengths and weaknesses of each study. Because much of medicine's early understanding of new diseases and previously unsuspected epidemiological correlations comes through assessment of case reports, we have included published case reports and anecdotal reports when they are data-based and verifiable.

The studies and investigations referenced in the dated entries catalogued in the Compilation of Studies & Findings are current through April 1, 2019. The footnoted citations here in the front matter represent studies and articles that are not referenced in the Compendium itself or which appeared as we went to press in June 2019.

Within the compiled entries, we have also provided references to articles appearing in the popular press, when available, that describe the results of the corresponding peer-reviewed study and place them in context with the results of other studies. For this purpose, we sought out articles that included comments by principal investigators on the significance of their findings. In such cases, footnotes for the peer-reviewed study and the matching popular article appear together in one entry. We hope these tandem references will make the findings more meaningful to readers.

Acronyms are spelled out the first time they appear in each section.

News articles appearing as individual entries signify reports that contain original research. In many cases, this reportage is based on data collected by industry or government agencies that were ferreted out by investigative journalists and not otherwise known to the scientific community.

While advocacy organizations have compiled many useful reports on the impacts of fracking, these, with few exceptions, do not appear in our Compendium unless they provide otherwise inaccessible data. We also excluded papers that focused purely on methodologies or instrumentation. For some sources, cross-referenced footnotes are provided, as when wide-

ranging government reports or peer-reviewed papers straddled two or more topics.

In our review of the data, seventeen compelling themes emerged, and these serve as the organizational structure of the Compendium. Readers will notice the ongoing upsurge in reported problems and health impacts, making each section top-heavy with recent data. In accordance, the Compendium is organized in reverse chronological order within sections, with the most recent information first.

The Compendium focuses on topics most closely related to the public health and safety impacts of unconventional gas and oil drilling and fracking. These necessarily include threats to climate stability.

Additional risks and harms arise from associated infrastructure and industrial activities that necessarily accompany drilling and fracking operations. A detailed accounting of all these ancillary impacts is beyond the scope of this document. Nevertheless, we include in this edition a section on impacts from fracking infrastructure that focuses on

- compressor stations and pipelines;
- silica sand mining operations;
- natural gas storage facilities;
- the manufacture and transportation of liquefied natural gas (LNG), and
- natural gas power plants.

(Research on gas-fired power plants appears in this edition for the first time. Note that threats from flare stacks are included in the section on air pollution.)

Many other relevant concerns—such as disposal of solid waste drill cuttings and the use of fracked gas as a feedstock in petrochemical manufacturing—are not included here. We hope to take up these issues in future editions.

Similarly, this edition of the Compendium does not examine the harms and risks posed by other forms of unconventional oil and gas extraction, such as cyclic steaming (which uses pressurized, superheated water to release oil), microwave extraction (which points microwave beams into shale formations to liquefy oil), and artificial lift (which uses gases, chemicals, or pumps to extract natural gas).

Given the rapidly expanding body of evidence related to the harms and risks of unconventional oil and gas extraction, we plan to continue revising and updating the Compendium approximately every year. It is a living document, housed on the websites of Concerned Health Professionals of New York and Physicians for Social Responsibility, which serves as an educational tool in important ongoing public and policy dialogues.

The Compendium is generally a volunteer project and has no dedicated funding; it was written utilizing the experience and expertise of numerous health professionals and scientists who have been involved in this issue for years.

We thank our external peer readers for their comments and suggestions: Casey Crandall; Laura Dagley, BSN, RN; Barbara Gottlieb; Robert Gould, MD; Jake Hays, MA; Douglas Hendren, MD, MBA; Lee Ann Hill, MPH; Robert Howarth, PhD; Anthony Ingraffea, PhD, PE;

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Foreword to the Sixth Edition

The Compendium in Historical Context

The release of the first edition of the Compendium by Concerned Health Professionals of New York in July 2014 coincided with a meteoric rise in the publication of new scientific studies about the risks and harms of fracking. A second edition was released five months later, in December 2014, and included new studies that further explicated recurrent problems.

Almost concurrently, on December 17, 2014, the New York State Department of Health (NYS DOH) released its own review of the public health impacts of fracking. (See footnote 655.) That document served as the foundation for a statewide ban on high-volume hydraulic fracturing (HVHF), announced by New York Governor Andrew Cuomo on the same day. Its conclusions—

[I]t is clear from the existing literature and experience that HVHF activity has resulted in environmental impacts that are potentially adverse to public health. Until the science provides sufficient information to determine the level of risk to public health from HVHF and whether the risks can be adequately managed, HVHF should not proceed in New York State.

The third edition of the Compendium, released in October 2015 and compiled as a joint effort with Physicians for Social Responsibility, included new peer-reviewed studies as well as the results of the first substantive government reports on the impacts of fracking. One of these was the New York State Department of Environmental Conservation's final environmental impact statement and attendant Findings Statement that incorporated the earlier health review into a larger analysis of the impacts of fracking. (See footnote 482.) The Findings Statement made clear that no known regulatory framework can adequately mitigate the multiple risks of fracking:

Even with the implementation of an extensive suite of mitigation measures...the significant adverse public health and environmental impacts from allowing high-volume hydraulic fracturing to proceed under any scenario cannot be adequately avoided or minimized to the maximum extent practicable....

In December 2015, the third edition became the basis of invited testimony at conferences taking place concurrently with the United Nations' climate talks in Paris. Those international negotiations resulted in an historical international accord, the Paris Agreement, which recognizes climate change as a grave threat to public health and establishes as a key goal the need to limit global temperature increases to 2° Celsius, or, ideally, 1.5° C, above pre-industrial times. As such, the treaty articulates a vision for energy by compelling nations to monitor their greenhouse gas emissions and set increasingly ambitious targets and timetables to reduce them.

The Compendium's fourth edition was released in November 2016, just as the Paris Agreement went into force and as several new studies conclusively demonstrated that expansion of shale gas and oil extraction was incompatible with climate stability and the goal of rapid decarbonization that it requires. All together, these data show that because of increasing emissions of methane—a powerful heat-trapping gas—the United States was on track to miss its pledge under the Paris Agreement to reduce greenhouse gas emissions 26-28 percent by 2025. (See footnotes 977 and

978.) The evidence showed that methane leaks from U.S. oil and gas operations were significantly higher than previously estimated, as were U.S. methane emissions overall. (See footnotes 979-981, 987, 998, and 999.)

The fifth edition, released in March 2018, was launched in a time of deep environmental retrenchment by the U.S. government. The Trump administration had announced an era of “energy dominance” based on surging domestic production of oil and natural gas, most of it extracted via fracking. References to climate change were removed altogether from some government websites. Greenhouse gas emissions were no longer to be considered in National Environment Policy Act reviews. The White House announced its intent to withdraw from the Paris Agreement even as the American Meteorological Society released a major report that identified climate change as a contributor to several recent extreme weather events and even as the Fourth National Climate Assessment—a quadrennial report compiled by 13 federal agencies—confirmed human activities as the dominant cause for ongoing global warming.^{1,2}

Included in the federal environmental rules rescinded during this period were many that governed drilling and fracking operations. The Bureau of Land Management’s (BLM) Waste Prevention Rule, requiring companies drilling on public and tribal lands to reduce methane leaks and cut back on flaring and venting, was suspended. The U.S. Environmental Protection Agency (EPA) canceled a system for existing oil and gas facilities to report methane leaks and delayed implementation of a rule that would have limited methane emissions from new oil and gas drilling sites. The U.S. Department of the Interior rescinded a rule to require disclosure of chemicals in fracking fluid on public lands and tighten standards for well construction and wastewater disposal. The White House revoked policies that had prevented the construction of the Dakota Access Pipeline. That pipeline now carries fracked oil from the Bakken Shale in North Dakota to an oil storage hub in Illinois.^{3,4}

This current sixth edition of the Compendium arrives at a time of starkly contradictory trends.

On the one hand, aggressive attacks on regulatory oversight of U.S. oil and gas extraction continue and now extend to the science underlying the targeted regulations. A recent EPA directive has banned scientists who received EPA funding from sitting on panels that advise the agency on scientific matters.⁵ An order issued by the White House-appointed director of the U.S.

¹ Herring, S. C., Christidis, N., Hoell, A., Kossin, J. P., Schreck III, C. J., & Stott, P. A. (2017). Explaining extreme events of 2016 from a climate perspective. *Bulletin of the American Meteorological Society*, 99(1), S1–S157. doi: 10.1175/BAMS-ExplainingExtremeEvents2015

² U.S. Global Change Research Program. (2017). *Climate science special report: Fourth National Climate Assessment, Volume I*. Retrieved from <https://www.globalchange.gov/browse/reports/climate-science-special-report-fourth-national-climate-assessment-nca4-volume-i>

³ Harvard University Environmental Law Program. (2019). Environmental regulation rollback tracker. <http://environment.law.harvard.edu/policy-initiative/regulatory-rollback-tracker/>

⁴ Mooney, C. (2017, December 29). To round out a year of rollbacks, the Trump administration just repealed key regulations on fracking. *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/energy-environment/wp/2017/12/29/to-round-out-a-year-of-rollbacks-the-trump-administration-just-repealed-key-regulations-on-fracking/?utm_term=.f16b4db99128

⁵ Stempel, J. (2019, June 3). U.S. EPA is sued for ousting scientists from advisory panels. *Reuters*. Retrieved from <https://www.reuters.com/article/us-epa-lawsuit/us-epa-is-sued-for-ousting-scientists-from-advisory-committees-idUSKCN1T42H8>

Geological Survey (USGS) now prohibits that agency's scientists from generating climate models beyond the year 2040.⁶

The feverish pace of U.S. oil and gas extraction also continues. Unimpeded by federal regulations and driven by fracking, U.S. oil and gas production has reached record levels, which, in turn, has spurred a massive build-out of fracking infrastructure. The Federal Energy Regulatory Commission (FERC) has eased the process to build new pipelines, and even more public lands have been opened to oil and gas extraction.⁷ One executive order has impeded the ability of states to block pipeline construction, while another has transferred power for international pipeline approval from the U.S. State Department to the President.⁸ As the U.S. Energy Information Administration (EIA) forecasts record build-out of natural gas pipelines, the Pipeline and Hazardous Materials Safety Administration (PHMSA) has urged Congress to expand a law that treats some kinds of citizen protests against pipeline construction as federal crimes.⁹

The White House policy of energy dominance also continues apace. In the face of flattening domestic demand for gas, the ongoing fracking boom is increasingly directed at export markets.¹⁰ The United States is on track to become the world's largest international seller of natural gas. As of this writing, three liquefied natural gas (LNG) export terminals are operational with more than a dozen new LNG terminals in the planning or development stage. Exports of LNG from the United States to the European Union alone have increased by 181 percent since July 2018.¹¹ In May 2019, the U.S. Department of Energy introduced the terms "freedom gas" and "molecules of U.S. freedom" to refer to LNG exports.¹² In June 2019, as we went to press, the Delaware River Basin Commission approved a plan to construct an LNG terminal on the Delaware River in Gibbstown, New Jersey with the aim of exporting natural gas extracted from shale gas wells in Pennsylvania.^{13, 14} The gas would be trucked to the export terminal from a new LNG liquefaction plant planned for Pennsylvania's Bradford County.¹⁵

⁶ Davenport, C. (2019, May 27). Trump administration hardens its attack on climate science. *New York Times*. Retrieved from <https://www.nytimes.com/2019/05/27/us/politics/trump-climate-science.html>

⁷ Leven, R., (2018, November 13). Drilling overwhelms agency protecting America's lands. *Associated Press*. Retrieved from <https://www.apnews.com/dac08562077c41a8a08845a291cbfb6c>

⁸ Kusnetz, N. (2019, April 11). Trump aims to speed pipeline projects by limiting state environmental reviews. *Inside Climate News*. Retrieved from <https://insideclimatenews.org/news/11042019/trump-pipeline-executive-order-environmental-review-keystone-xl-clean-water-act-states-rights>

⁹ Budryk, Z. (2019, June 3). Transportation Department seeks to crackdown on pipeline protests: Report. *The Hill*. Retrieved from <https://thehill.com/policy/transportation/446765-transportation-department-seeks-to-crack-down-on-pipeline-protests>

¹⁰ Proctor, D. (2019, April 1). Plenty of natural gas around—it just needs a market. *Power Magazine*. Retrieved from <https://www.powermag.com/plenty-of-natural-gas-to-go-around-it-just-needs-a-market/>

¹¹ European Commission. (2018, March 8). EU-U.S. joint statement: Liquefied Natural Gas (LNG) imports from the U.S. continue to rise, up by 181% [Press release.] Retrieved from http://europa.eu/rapid/press-release_IP-19-1531_en.htm

¹² U.S. Department of Energy (2019, May 29). Department of Energy authorizes additional LNG exports from Freeport LNG [Press release]. Retrieved from <https://www.energy.gov/articles/department-energy-authorizes-additional-lng-exports-freeport-lng>

¹³ Maykuth, A. (2019, June 12). Contentious plan to remake N.J. dynamite plant into shale-gas export terminal is approved *Philadelphia Inquirer*. <https://www.inquirer.com/business/lng-export-terminal-philadelphia-repaunofortress-approved-20190612.html>

Similarly, by September 2018, the United States had become the world's leading oil producer, surpassing both Russia and Saudi Arabia.¹⁶ U.S. oil production is forecast to increase by 30 percent by 2023, with much of that growth driven by fracking operations in the Permian Basin of West Texas and eastern New Mexico. The Permian is now the leading source of U.S. crude oil exports.¹⁷

On the other hand, the ongoing U.S. fracking boom and its protracted deregulation are at odds with the emerging scientific consensus on the scale and tempo of necessary climate change mitigation and with rising public alarm about the impending climate crisis that this consensus has amplified. In some cases, Trump-era rollbacks have been reversed. In March 2019, a U.S. district judge blocked leasing of public lands for fracking in Wyoming on the grounds that the BLM had not considered greenhouse gas emissions.¹⁸ (Physicians for Social Responsibility was a party to this lawsuit.) The National Aeronautics and Space Administration's (NASA) Carbon Monitoring System, targeted by the White House for elimination in 2018, was refunded by Congress in 2019.¹⁹

In October 2018, in its first commissioned report under the Paris Agreement, the United Nations Intergovernmental Panel on Climate Change (IPCC) announced that emissions from oil and gas must decline swiftly within the next decade—a trend not compatible with further build-out of oil and gas infrastructure. Specifically, the IPCC found that global warming above 1.5° C is likely to result in irreversible points of no return and cascading, uncontrollable harms, including wholesale loss of coral reefs, loss of ocean fish stocks, widespread crop failures, flooding of coastal cities, multiple public health crises, and social disruption. To avoid the worst of these outcomes, the world needs to reduce greenhouse gas emissions by 45 percent by 2030 and reach net zero by 2050.^{20, 21}

¹⁴ Hurdle, J. (2019, June 15). Delaware River Basin Commission confirms plan to build LNG export terminals at new South Jersey port. *State Impact Pennsylvania*. Retrieved from <https://stateimpact.npr.org/pennsylvania/2019/06/15/delaware-river-basin-commission-confirms-plan-to-build-lng-export-terminal-at-new-south-jersey-port/>

¹⁵ Maykuth, A. (2019, June 9). The 'hidden' plan to remake an old dynamite factory near Philly into a major gas export terminal. *Philadelphia Inquirer*. Retrieved from <https://www.inquirer.com/business/energy/philadelphia-lng-export-terminal-delaware-river-fortress-20190609.html>

¹⁶ U.S. Energy Information Administration. (2018, September 12). The United States is now the largest global crude oil producer. *Today in Energy*. Retrieved from <https://www.eia.gov/todayinenergy/detail.php?id=37053>

¹⁷ Collier, K., Hopkins, J. S., & Leven, R. (2018, October 11). As oil and gas exports surge, West Texas becomes the world's "extraction colony." *Texas Tribune* and Center for Public Integrity. Retrieved from <https://www.texastribune.org/2018/10/11/west-texas-becomes-worlds-extraction-colony-oil-gas-exports-surge/>

¹⁸ Groom, N. (2019, March 20). U.S. judge blocks drilling over climate change, casting doubt on Trump agenda. *Reuters*. Retrieved from <https://www.reuters.com/article/us-usa-drilling-lawsuit/u-s-judge-blocks-drilling-over-climate-change-casting-doubt-on-trump-agenda-idUSKCN1R11YL>

¹⁹ Popkin, G. (2019 February 28). New budget bill rescues NASA's carbon monitoring program. *Eos*. Retrieved from <https://eos.org/articles/new-budget-bill-rescues-nasas-carbon-monitoring-system>

²⁰ Masson-Delmotte, V., Zhai, P., Pörtner, H. O., Roberts, D., Skea, J., Shukla, P. R., . . . Waterfield, T. (eds.). (2018). Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. World Meteorological Organization. Retrieved from <https://www.ipcc.ch/sr15/>

²¹ Davenport, C. (2018, October 7). Major climate report describes a strong risk of crisis as early as 2040. *New York Times*. Retrieved from <https://www.nytimes.com/2018/10/07/climate/ipcc-climate-report-2040.html>

These findings were confirmed and expanded upon in another landmark paper published in April 2019 by an international team of scientists who warned that “it has become clear that beyond 1.5° C, the biology of the planet becomes gravely threatened because ecosystems literally begin to unravel.”²²

In May 2019, a joint appeal from the leaders of the United Nations System organizations urged world political leaders “with great urgency” to accelerate mitigation efforts in order to limit the global temperature to 1.5° C above pre-industrial levels, referring to this limit as a “moral, economic imperative.”²³

The ongoing fracking boom is also at odds with trends in the economics of renewable energy. The ongoing build-out of natural gas pipelines has been accompanied by an ongoing wave of natural gas power plant construction across the United States. In 2018, 35 percent of electricity in the United States was generated in gas-fired power plants—a figure that is forecast to rise to 38 percent by 2020.²⁴ At the same time, rapid declines in the cost of wind, solar, and battery storage prices have now made renewable energy a cheaper alternative than coal and gas in most major economies.²⁵ A new analysis shows that a 100 percent renewable energy system in the United States would reduce electricity costs.²⁶

Indeed, renewables are already replacing existing gas plants in some cases. In 2018, three large gas-fired power plants closed in California, with more retirements planned as wind and solar replace gas for electrical generation.^{27, 28} In March 2019, Florida Power and Light announced it would retire two natural gas plants and replace them with a massive solar-powered battery bank.²⁹ In April 2019, Indiana regulators rejected a proposal to replace three retiring coal plants

²² Dinerstein, E., Vynne, C., Sala, E., Joshi, A. R., Fernando, S., Lovejoy, T. E., . . . Wikramanayake, E. (2019). A global deal for nature: guiding principles, milestones, and targets. *Science Advances*, 5(4), 1-17. doi: 10.1126/sciadv.aaw2869

²³ United Nations Development Program (2019, May 10). Climate action summit: A joint appeal from the UN system to the Secretary-General’s climate action summit. Retrieved from <https://www.undp.org/content/undp/en/home/news-centre/speeches/2019/climate-action-summit.html>

²⁴ U.S. Energy Information Administration. (2019, May 7). Short-term energy outlook. Retrieved from <https://www.eia.gov/outlooks/steo/report/>

²⁵ Lazard. (2018, November 8). Levelized cost of energy and levelized cost of storage 2018. Retrieved from <https://www.lazard.com/perspective/levelized-cost-of-energy-and-levelized-cost-of-storage-2018/>

²⁶ Aghahosseini, A., Bogdanov, D., Barbosa, L. S. H. S., & Breyer, C. (2019) Analysing the feasibility of powering the Americas with renewable energy and inter-regional grid interconnections by 2030. *Renewable and Sustainable Energy Reviews*, 105, 187-205. doi: 10.1016/j.rser.2019.01.046

²⁷ Specht, M. (2019, February 25). Natural gas power plant retirements in California. Union of Concerned Scientists. Retrieved from <https://blog.ucsusa.org/mark-specht/gas-retirements-california>

²⁸ Groom, N. (2019, February 12). Los Angeles abandons new natural gas plants in favor of renewables. *Reuters*. <https://www.reuters.com/article/us-usa-california-natgas/los-angeles-abandons-new-natural-gas-plants-in-favor-of-renewables-idUSKCN1Q12C9>

²⁹ Geuss, M. (2019, March 29). Florida utility to close natural gas plants, build massive solar-powered battery. *Ars Technica*. Retrieved from <https://arstechnica.com/information-technology/2019/03/florida-utility-to-close-natural-gas-plants-build-massive-solar-powered-battery/>

with a massive natural gas plant over concerns that gas was a risky investment “if alternatives decline in price.”³⁰

With an economic lifespan of between 30 and 50 years, new gas and oil infrastructure projects are now at risk for becoming stranded assets. Evidence shows that, even in the absence of new climate policies, continuing investments in fossil fuel exports may substantially harm the U.S. economy.³¹

Expanding Knowledge Base

Even as we compiled entries for this sixth edition, the authors of the Compendium continued to see evidence of, and appreciate, the rapid expanse of our knowledge base. The Compendium exists within a moving stream of data.

As is revealed in the Repository for Oil and Gas Energy Research (ROGER), the database of literature maintained by PSE Healthy Energy, the number of peer-reviewed publications relevant to assessing the environmental, socioeconomic, and public health impacts of shale gas development doubled between 2011 and 2012. It doubled again between 2012 and 2013.³²

This trend continues. More than half of the peer-reviewed scientific papers on the risks and harms of fracking have been published since January 2016. Indeed, 20 percent (355 studies) of the now more than 1,700 available studies were published in 2018 alone.

As of April 16, 2019, there were 1,778 published peer-reviewed studies that pertain to shale and tight gas development archived in the ROGER database.³³

This body of evidence clearly reveals both potential and actual harms. Specifically, PSE’s statistical analysis of the scientific literature available from 2009 to 2015 demonstrates that:

- 69 percent of original research studies on water quality found potential for, or actual evidence of, fracking-associated water contamination,
- 87 percent of original research studies on air quality found significant air pollutant emissions, and
- 84 percent of original research studies on human health risks found signs of harm or indication of potential harm.³⁴

³⁰ Bade, G. (2019, April 25). Indiana regulators reject Vectren gas plant over stranded asset concerns. *Utility Dive*. Retrieved from <https://www.utilitydive.com/news/indiana-regulators-reject-vectren-gas-plant-over-stranded-asset-concerns/553456/>

³¹ Mercure, J.-F., Pollitt, H., Viñuales, J. E., Edwards, N. R., Holden, P. B., Chewprecha, U., . . . & Knobloch, F. (2018). Macroeconomic impact of stranded fossil fuel assets. *Nature Climate Change* 8, 588-593. doi: 10.1038/s41558-018-0182-1

³² PSE Healthy Energy (2016, April 20). The science on shale gas development [infographic]. Retrieved from http://www.psehealthyenergy.org/data/PSE_FrackingStudy_Summary_Infographic_4-20-2016_00.jpg

³³ PSE Healthy Energy. Repository for Oil and Gas Research (ROGER). <https://www.psehealthyenergy.org/our-work/shale-gas-research-library/>

A follow-up analysis using the same criteria for inclusion found that 90.3 percent of all original research studies published from 2016-2018 on the health impacts of fracking found a positive association with harm or potential harm.³⁵

Timeline of Bans and Moratoria

As a response to the proliferating evidence of the risks and harms of fracking—augmented by increasing concern about the many remaining uncertainties—various countries, states, and municipalities have instituted bans and moratoria.

France banned fracking in July 2011 and Bulgaria in January 2012.

In May 2012, the state of Vermont banned fracking and prohibited the storage and treatment of fracking waste.

In July 2012, a revision of environmental laws in Austria prompted the main Austrian oil and gas group to announce a stop to its shale gas plans in the country.

In April 2013, the Luxembourg parliament passed a motion against shale gas exploration in a decision that has not been revisited since.

In July 2014, the Flanders region of Belgium temporarily banned fracking. This ban is still valid.

The California counties of Santa Cruz, San Benito, and Mendocino counties all banned fracking in 2014.

New York State banned fracking in December 2014.

In January 2015, Scotland became the first country in Great Britain to impose a formal moratorium on fracking. In 2016, as part of the ongoing moratorium process, the government of Scotland released a series of reports that reconfirmed the evidence for potential contamination of air and water, threats to worker health from silica dust exposure, and risks to the health of nearby residents. It further noted that the pursuit of unconventional oil and gas extraction would make it more difficult for Scotland to achieve its climate targets on greenhouse gas emissions.^{36, 37}

Scotland's moratorium was extended "indefinitely" in October 2017. In March 2019, a decision to solidify that prohibition into a full legislative ban was delayed.

³⁴ Hays, J., & Shonkoff, S. B. C. (2016). Toward an understanding of the environmental and public health impacts of shale gas development: An analysis of the peer-reviewed scientific literature, 2009-2015. *PLOS One*, *11*(4), e0154164. doi: 10.1371/journal.pone.0154164

³⁵ Ferrar, K., Jackson, E., & Malone, S. (2019). Categorical review of health reports on unconventional oil and gas development: Impacts in Pennsylvania. FracTracker Alliance Issue Paper. Retrieved from https://www.delawareriverkeeper.org/sites/default/files/FracTrackerAlliance_DRKHealthReview_Final_4.25.19_0.pdf

³⁶ Health Protection Scotland. (2016, November). *A health impact assessment of unconventional oil and gas in Scotland*, vol. 1. Retrieved from <http://www.hps.scot.nhs.uk/resourcedocument.aspx?resourceid=3102>

³⁷ Committee on Climate Change. (2016, August). *Scottish unconventional oil and gas: Compatibility with Scottish greenhouse gas emissions targets*. Retrieved from <http://www.gov.scot/Resource/0050/00509324.pdf>

In February 2015 the government of Wales declared a moratorium on fracking “until it is proven safe.” In July 2018, the Welsh government confirmed that shale gas was not compatible with decarbonization targets and said it would not support applications for fracking.

In March 2015, the Canadian province of New Brunswick declared a moratorium on fracking.

In July 2015, the Netherlands banned all shale gas fracking until 2020 on the grounds that “research shows that there is uncertainty” about impacts. In October 2018, the Dutch government announced that gas extraction of all kinds in the Groningen gas field would entirely cease by 2030 after public outcry over continuing earthquakes in the region. Gas production has already been cut by 60 percent since its peak in 2013. On May 22, 2019, Groningen was hit with a magnitude 3.4 earthquake that damaged multiple homes.³⁸

In September 2015, Northern Ireland effectively banned fracking via strategic planning policies.

In December 2015, the plenary of the European Parliament affirmed the incompatibility of shale gas extraction via hydraulic fracturing with the European Union’s commitment to decarbonization, and it acknowledged public concerns about the environmental and health impacts of fracking. While falling short of an outright EU-wide moratorium on fracking, the report states that “it is questionable whether hydraulic fracturing can be a viable technology in the European Union.”³⁹

In Florida, 90 municipalities have either banned fracking outright or passed resolutions opposing it. In the past three legislative sessions, a bipartisan coalition of lawmakers has introduced statewide ban legislation. During his 2018 campaign, Governor Ron DeSantis pledged publicly to issue a statewide ban. As of this publication, he has yet to do so.

Also in 2016, New Brunswick extended its moratorium on fracking “indefinitely,” citing unresolved problems with the disposal of fracking wastewater, and in the Canadian province of Newfoundland and Labrador, where a moratorium had been in place since 2013, a government-appointed panel recommended that fracking remain “paused,” citing data gaps and unresolved questions about the underlying geology.

In June 2016, Germany adopted a moratorium on “unconventional fracking” until 2021 but will permit exploratory drilling research projects.

Also in 2016, California’s Butte and Alameda counties banned fracking, along with Monterey County, which also banned all new oil drilling.

In August 2016, the Australian state of Victoria declared a permanent ban on fracking on the grounds that the risks outweighed any potential benefits.

³⁸ (2019, May 22). Groningen hit by strong earthquake as gas extraction impact continues. *DutchNew.nl*. Retrieved from <https://www.dutchnews.nl/news/2019/05/groningen-hit-by-strong-earthquake-as-gas-extraction-impact-continues/>

³⁹ Committee on Industry, Research and Energy. (2015, November 24). *Report on Towards a European Energy Union*, A8-0341/2015. Retrieved from <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A8-2015-0341+0+DOC+XML+V0//EN>

In September 2016, a California judge, arguing that the agency had failed to consider the dangers of fracking, struck down a bid by the BLM to open one million acres of public land in central California to oil drilling.

In November 2016, Winona County, Minnesota banned the mining of frack sand, a decision that was upheld in district court in November 2017. That ruling is now before the Minnesota Supreme Court.⁴⁰

In December 2016, the Portland City Council in Oregon approved zoning code changes that banned the construction of new fossil fuel projects, including terminals for storing and transporting natural gas, and also prohibited the expansion of pre-existing facilities, including an LNG plant.

In March 2017, the Spanish region of Castilla Leon signed a political agreement to give up on shale gas exploration. This decision followed the implementation of several other regional bans in Spain or laws that otherwise made fracking unviable. These regions include Cantabria (April 2013), La Rioja (May 2013), Catalonia (February 2014), Basque Country (June 2015), and Castillo La Mancha (March 2017).

In April 2017, Maryland became the third U.S. state to ban fracking when Governor Larry Hogan signed a ban bill that was overwhelmingly approved by the state legislature. Maryland's ban followed a two-and-a-half-year statewide moratorium.

Also in April 2017, Entre Ríos passed the first province-wide ban on fracking in Argentina. This ban follows 50 individual municipal bans and is intended to protect the Guarani Aquifer, which extends beneath parts of Argentina, Brazil, Paraguay, and Uruguay.

In June 2017, France expanded its fracking ban to include a ban on all new oil and gas exploration.

In July 2017, Ireland banned fracking when legislation was signed into law by the president.

Also in October 2017, Canada's Prince Edward Island included a prohibition on fracking as part of its Water Act.

According to campaigners, Albania enacted a national ban on fracking in 2017, but these reports remain unconfirmed by official sources.

In December 2017, Uruguay prohibited fracking for four years.

In March 2018, the Australian state of Tasmania extended its moratorium on fracking until 2025.

In November 2018, the Delaware River Basin Commission—which consists of governors from the four states of New York, New Jersey, Pennsylvania, and Delaware together with the U.S. Army Corps of Engineers—released a proposed rule to ban fracking in the Delaware River watershed on the grounds that fracking exposes its waters to “significant, immediate, and long-term risks.” As currently drafted, the rule provides for importation of wastewater from fracking

⁴⁰ Rogers, C. (2019, April 17). Supreme Court considers frac ban. *Winona Post*. Retrieved from <http://www.winonapost.com/Article/ArticleID/63818/Supreme-Court-considers-frac-ban>

operations located outside the Basin for storage, processing, and discharge within the Basin. It also provides for water withdrawals from the Delaware River and its tributaries for export and use in such operations.^{41, 42} The longest free-flowing river in the Northeast, the Delaware River provides drinking water to more than 15 million people (approximately five percent of the U.S. population). About one-third of the river system flows through shale formations. A de facto moratorium on fracking in the Delaware River Basin has been in place since 2010.

In December 2018, the newly elected president of Mexico announced a suspension of all further energy auctions for three years, temporarily halting permits for new fracking operations. This announcement is widely seen as a possible step by President Obrador toward fulfilling a campaign promise to ban fracking in Mexico.⁴³

On May 8, 2019, Washington State enacted a statewide ban on fracking.

On May 29, 2019, the Oregon Senate passed a five-year fracking moratorium. On June 17, Governor Kate Brown signed the bill into law.

In Connecticut, where no fracking or potential fracking takes place, ordinances prohibiting the storage or use of imported fracking waste have been passed in 56 municipalities. As we went to press in June 2019, the State House of Representatives, in a near-unanimous vote, passed a bill that enacts a permanent statewide ban on the disposal of oil and gas extraction waste, following a unanimous vote by the Connecticut Senate in May. The bill now goes to Governor Ned Lamont for signing.

Also, as we went to press, the New York State Senate voted for a bill that would end special exemptions from hazardous waste laws that allow fracking waste to be imported from out of state and dumped in municipal waste landfills and wastewater treatment plants. The bill now goes to the State Assembly for consideration. In spite of the statewide fracking ban, seven different landfills across New York State accept liquid and solid fracking waste from Pennsylvania. Seven New York county legislatures have banned that practice.

In sum, as evidence continues to mount of its environmental and public health costs, legislative and governmental bodies are increasingly apprehensive about the risks and harms of fracking.

Nevertheless, in several notable cases, hard-won bans and other restrictions on fracking have been overturned.

A fracking ban passed by the city of Denton, Texas in November 2014 was invalidated in June 2015 by a state law, pushed by the oil and gas industry, that prohibits Texas municipalities from passing local bans.

⁴¹ Delaware River Basin Commission. (2017, November 30). Proposed new 18 CFR part 440—hydraulic fracturing in shale formations. Retrieved from http://www.nj.gov/drbc/library/documents/HydraulicFracturing/18CFR440_HydraulicFracturing_draft-for-comment_113017.pdf

⁴² Hurdle, J. (2017, November 30). Fracking ban proposed for Delaware River basin; ‘significant risks’ cited. *StateImpact Pennsylvania*. Retrieved from <https://stateimpact.npr.org/pennsylvania/2017/11/30/fracking-ban-proposed-for-delaware-river-basin-significant-risks-cited/>

⁴³ Bertram, R. (2019, April 17). Will fracking be banned in Mexico? *Energy Transition*. Retrieved from

In June 2015, citing concerns about noise impacts and the industrialization of rural landscape, the county of Lancashire in northwest England halted plans for a major British fracking operation. Years previously, two wells—the first and only pair ever drilled in Lancashire—had suffered well integrity failures and caused earthquakes. However, in 2016, the national government overturned Lancashire’s ban, and drilling began in October 2017 despite widespread, ongoing public opposition.

In May 2016, the Colorado Supreme Court struck down local fracking bans in the cities of Fort Collins and Longmont. A statewide ballot measure to increase well setback distances in Colorado subsequently failed in November 2018. In January 2019, the Colorado Supreme Court ruled against a case brought by six youth that would have halted new drilling permits pending a comprehensive study of health and environmental impacts. The ruling allows Colorado to continue to weigh costs and technical feasibility against adverse public health impacts. However, in April 2019, the Colorado State legislature passed a bill that grants municipalities more regulatory authority over fracking activities.

In December 2017, Australia’s Northern Territory government delayed a decision on whether or not to extend or lift its own moratorium on fracking after a draft final report identified multiple risks to water, land, tourism, and indigenous culture. In April 2018, it lifted this moratorium.

In November 2018, the statewide moratorium in Western Australia was lifted over intense opposition, highlighting the limitations of aboriginal land rights. However, local bans in heavily populated areas of the state were left in place.

Introduction to Fracking

Since the end of the 20th century, horizontal drilling has been combined with high-volume hydraulic fracturing to create a novel approach to extracting dispersed oil and natural gas, primarily from shale bedrock, that would otherwise not flow to the surface. Typically, these unconventional extraction methods (collectively known as “fracking”) take place on clustered multi-well pads where individual wellbores extend vertically down into the shale formation and then turn horizontally, tunneling through the shale in various directions. These lateral tunnels can extend as far as two miles underground.

To liberate the gas (methane) or oil trapped inside the shale, many small explosive charges followed by high volumes of pressurized fluid are sent into the shale layer to expand and extend its many naturally occurring cracks, bedding planes, and faults. Silica sand grains (or sometimes ceramic beads) are carried by the pressurized fluid into these spaces and remain there after the pressure is released, acting to prop open these now-widened fissures in the shale and allowing the methane or oil trapped within to flow up the well.

Fracking fluid consists of millions of gallons of fresh water to which is added a sequence of chemicals that include biocides, lubricants, gelling agents, anti-scaling, and anti-corrosion agents. Some of the water used to frack wells remains trapped within the fractured zone and, as such, is permanently removed from the hydrologic cycle. The remainder travels back up to the surface. This flowback fluid contains not only the original chemical additives, many of which are toxic, but also harmful substances carried up from the shale zone, which often include brine, heavy metals, and radioactive elements.

Once in production, a fracked well continues to generate liquid throughout its lifetime. This produced water, which contains many of the same toxic substances as flowback fluid, is a second component of fracking waste, and it also requires containment and disposal. In addition, fracking waste includes solid drilling cuttings, which are typically laced with various chemical substances used to aid the drilling process. These cuttings, which can also contain radioactive elements, are typically disposed in municipal waste landfills. Fracking waste is exempt from federal hazardous waste regulations that would otherwise prohibit this practice.

Downstream elements of fracking infrastructure, which lie between the wellhead and the point of combustion, include processing plants, transport infrastructure such as pipelines and compressor stations, distribution lines storage facilities, gas-fired power plants, and LNG liquefaction plants and export terminals. Upstream elements include silica sand mining operations and water withdrawal operations.

As fracking operations in the United States have increased in frequency, size, and intensity, and as the transport of extracted materials has expanded, a significant body of evidence has emerged to demonstrate that these activities are dangerous to people and their communities in ways that are difficult—and may prove impossible—to mitigate. Risks include adverse impacts on water, air, agriculture, public health and safety, property values, climate stability, and economic vitality, as well as earthquakes.

Researching these complex, large-scale industrialized activities and the ancillary infrastructure that supports them takes time and has been hindered by institutional secrecy. Nonetheless, research is gradually catching up to the last decade's surge in fracking from shale. A growing body of peer-reviewed studies, accident reports, and investigative articles has detailed specific, quantifiable evidence of harm and has revealed fundamental problems with the entire life cycle of operations associated with unconventional drilling, fracking, and fracked-gas infrastructure. Industry studies, as well as independent analyses, indicate inherent engineering problems including uncontrolled and unpredictable fracturing, induced seismicity, extensive methane leakage, and well casing and cement failures that cannot be prevented with currently available materials and technologies.

Fracking-related problems also originate from sources independent of engineering. These include habitat destruction; inadequate solutions for wastewater disposal; the presence of abandoned wells or vertical fault lines that can serve as pathways for fluid migration into aquifers; and standard operational industry norms (venting, flaring, blowdowns) that contribute to methane releases and air pollution.

Earlier scientific predictions are now bolstered by extensive empirical data, confirming that the public health risks from unconventional gas and oil extraction are real, the range of adverse environmental impacts wide, and the negative economic consequences considerable. **Our examination of the peer-reviewed medical, public health, biological, earth sciences, and engineering literature uncovered no evidence that fracking can be practiced in a manner that does not threaten human health.**

Despite this expanding body of knowledge, industry secrecy continues to thwart scientific inquiry, leaving many potential problems—especially cumulative, long-term risks—unidentified, unmonitored, and largely unexplored. This problem is compounded by non-disclosure agreements, sealed court records, and legal settlements that prevent families and their doctors from discussing injuries and illnesses that result from fracking and frack-related operations. Consequently, no quantitative and comprehensive inventory of human hazards yet exists.

The long-entrenched problem of secrecy shows no sign of resolving. The identity of chemicals used in fracking fluids remains proprietary and lies beyond the reach of federal right-to-know legislation that governs other industries. The nation's largest public database on chemicals used in fracking operations, FracFocus, operates on a voluntary basis, and while 23 states have adopted it to serve as a *de facto* chemical disclosure registry, its data has, over time, become increasingly less, rather than more, comprehensive and transparent. As documented in a 2016 study by a Harvard University team, rates of withheld information and claims of trade secrecy have increased since FracFocus was first launched in 2011. (See footnotes 1445, 1446.)

The incomplete picture created by lack of transparency in regard to chemicals used, produced, emitted, or created during the drilling and fracking process complicates the task of identifying potential hazards and exposure pathways. Nevertheless, the evidence to date indicates that fracking operations pose severe threats to health, both from water contamination and from air pollution.

In the United States, more than two billion gallons of water and fracking fluids are injected daily under high pressure into the earth for the purpose of enabling oil and gas extraction via fracking

or, after the fracking is finished, to flush the extracted wastewater down any of the more than 187,000 disposal wells across the country that accept oil and gas waste. All of that two billion daily gallons of fluid is toxic, and the wells that ferry it pass through our nation's groundwater aquifers on their way to the deep geological strata below, where the injection of fracking waste demonstrably raises the risk for earthquakes.

In the air around drilling and fracking operations and their attendant infrastructure, researchers have measured strikingly high levels of toxic pollutants, including the potent carcinogen benzene and the chemical precursors of ground-level ozone (smog). In some cases, concentrations of fracking-related air pollutants in communities where people live and work exceed federal safety standards. Research shows that air emissions from fracking can drift and pollute the air hundreds of miles downwind. (See footnotes 182-184.)

About one-third of the natural gas inventory in the United States is used to generate electricity, and, enabled by fracking, natural gas has, as of 2016, exceeded coal as the nation's leading source of electricity.⁴⁴ With hydraulically fractured wells now producing 70 percent of U.S. natural gas and half of U.S. crude oil, and with hydraulic fracturing used in 95 percent of new wells, the "unconventional" techniques of fracking can no longer be considered atypical nor can the question of their public health risks be considered inconsequential.^{45, 46}

Drilling and fracking operations and their ancillary infrastructure have profoundly altered Earth's landscape. The flare stacks and artificial lights from major shale plays are visible from space,⁴⁷ as is the upward buckling of Earth's surface that is caused by the high-pressure injection of fracking wastewater into disposal wells.⁴⁸

The dramatic increase in fracking over the last decade in the United States has pushed oil and gas extraction operations into heavily populated areas. In the Marcellus Shale alone, which underlies much of the Mid-Atlantic United States, 15,939 wells were drilled and fracked between 2008 and 2018.⁴⁹ More than 11,000 of these wells are in Pennsylvania.

At least six percent of the U.S. population—17.6 million Americans—now live within a mile of an active oil or gas well, a number that includes 1.4 million young children and 1.1 million

⁴⁴ Magill, B. (2016, May 6). Fracking hits milestone as natural gas use rises in U.S. *Climate Central*. Retrieved from <http://www.climatecentral.org/news/fracking-milestone-as-natural-gas-use-rises-20330>

⁴⁵ U.S. Energy Information Administration. (2016, May 5). Hydraulically fractured wells provide two-thirds of U.S. natural gas production. *Today in Energy*. Retrieved from <https://www.eia.gov/todayinenergy/detail.php?id=26112>

⁴⁶ U.S. Energy Information Administration. (2016, March 15). Hydraulic fracturing accounts for about half of current U.S. crude oil production. *Today in Energy*. Retrieved from <https://www.eia.gov/todayinenergy/detail.php?id=26112>

⁴⁷ NASA Earth Observatory. (2016, March 23). Shale revolution: As clear as night and day. Retrieved from <http://earthobservatory.nasa.gov/IOTD/view.php?id=87725&src=eoai-iotd>

⁴⁸ Coglean, A. (2016, September 22). You can see fracking's impact on Earth's surface from space. *New Scientist*. Retrieved from <https://www.newscientist.com/article/2106886-you-can-see-frackings-impact-on-earths-surface-from-space/>

⁴⁹ Jacquet, J. B., Junod, A. N., Bugden, D., Wildermuth, G., Fergen, J. T., Jalbert, K., . . . Ladlee, J. (2018). A decade of Marcellus Shale: Impacts to people, policy and culture from 2008 to 2018 in the Greater Mid-Atlantic region of the United States. *Extractive Industries and Society*, 5(4), 596-609. doi: 10.1016/j.exis.2018.06.006

elderly people.^{50, 51} About 8.6 million people are served by a drinking water source that is located within a mile from an unconventional well. (See footnote 302.) Understanding the potential for exposure and accompanying adverse impacts is a public health necessity.

Emerging Trends

1) Regulations are simply not capable of preventing harm.

Studies reveal inherent problems in the natural gas and oil extraction process, such as well integrity failures caused by aging or the pressures of fracking itself, and in the waste disposal process. These issues lead to water contamination, greenhouse gas emissions, air pollution with carcinogens and other toxic chemicals, earthquakes, and a range of environmental and other stressors inflicted on communities.

Some of fracking's many component parts—which include the subterranean geological landscape itself—are simply not controllable.

Compounding the innate unpredictability of the fracking process: The number of wells and their attendant infrastructure continue to proliferate, creating burgeoning cumulative impacts, and the size of individual wells keep growing. With the horizontal portions of a single well now extending as far as two miles or more underground, fluid injections, once typically three to five million gallons per fracked well, now can easily reach 10 to 20 million gallons per well.

The injection of ever-increasing volumes of fluids into an ever-increasing number of wells creates significant deformations in the shale. These are translated upwards, a mile or more, to the surface. Along the way, these “pressure bulbs” can impact, in unpredictable ways, faults and fissures in the overlying rock strata, including strata that intersect fresh water aquifers. Such pressure bulbs may mobilize contaminants left over from previous drilling and mining activities. (See footnotes 370, 371.) No set of regulations can obviate these potential impacts to groundwater.

No set of regulations can eliminate earthquake risks. (See footnote 752.) In spite of growing knowledge about the mechanics of how fracking and the underground disposal of fracking waste trigger earthquakes via activation of faults, no model can predict where or when earthquakes will occur or how powerful they will be. New research demonstrates that induced earthquakes can occur many miles from fracking sites. (See footnote 73.)

Regulations cannot prevent air pollution. The state of California determined that fracking can have “significant and unavoidable” impacts on air quality, including driving pollutants to levels that violate air quality standards. (See footnote 173.) In northeastern Colorado, ambient levels of atmospheric hydrocarbons have continued to increase even with stricter emission standards. (See

⁵⁰ Czolowski, E. D., Santoro, R. L., Srebotnjak, T., & Shonkoff, S. B. C. (2017). Toward consistent methodology to quantify populations in proximity to oil and gas development: A national spatial analysis and review. *Environmental Health Perspectives*, 125(8). doi: 10.1289/EHP1535

⁵¹ Konkel, L. (2017). In the neighborhood of 18 million: Estimating how many people live near oil and gas wells. *Environmental Health Perspectives*, 125(8). doi: 10.1289/EHP2553

footnote 188.) Tighter state regulations and tougher enforcement, including unannounced visits by state health inspectors equipped with infrared cameras, have reduced leaking methane and toxic vapors at individual well sites, but total air emissions continue to rise as the total number of wells continues to increase. At this writing, there are 53,000 active oil and gas wells in Colorado.⁵²

Leakage rates among active wells are wildly variable: Four percent of wells nationwide are responsible for fully half of all methane emissions from drilling and fracking-related activities. Predicting which wells will become “super-emitters” is not possible, according to a 2016 survey of 8,000 wells using helicopters and infrared cameras. Further, much of this leakage is engineered into the routine operation of fracking extraction, processing, and transport infrastructure, as when vapors are vented through release valves in order to regulate pressure. (See footnotes 994, 995.)

Long after they are decommissioned, well sites continue to leak in ways that are not always fixable. Abandoned wells are a significant source of methane leakage into the atmosphere, and, based on findings from New York and Pennsylvania, may exceed cumulative total leakage from oil and gas wells currently in production. Plugging abandoned wells does not always reduce methane emissions, and cement plugs themselves deteriorate over time. (See footnote 475.)

Further, countless abandoned wells are unmapped and their locations unknown. Many have no apparent owner. Across the nation, there are as many as three million abandoned wells. Pennsylvania alone is home to 200,000 to 750,000 abandoned wells, most of which are not charted or even visible on the surface.⁵³ No state or federal agency routinely monitors methane leakage from abandoned wells. (See footnotes 854, 859.) In Alberta, Canada, there are roughly 90,000 inactive wells in need of plugging, a number that is expected to double in the next eleven years. The Alberta Energy Regulator has estimated that the time required to plug and prepare 180,000 wells for clean-up and reclamation is 126 years. Another 77,000 wells in Alberta are plugged but not yet reclaimed.⁵⁴

2) Fracking and natural gas are incompatible with climate solutions.

On the grounds that natural gas emits, when combusted, only 53 percent of the carbon dioxide emitted by coal, early promoters of fracking argued that natural gas could serve as a “bridge fuel” while renewable energy sources ramp up. Scientific evidence now disproves these claims and shows that natural gas is as damaging to the climate as coal, and may be worse.

Natural gas is 85-95 percent methane, a short-lived but much more potent greenhouse gas than formerly appreciated. The Intergovernmental Panel on Climate Change estimates that, over a 20-

⁵² Finley, B. (2019, April 21). Colorado’s unannounced air-pollution inspections at oil and gas sites are showing results—yet emissions are up as production continues. *Denver Post*. Retrieved from <https://www.denverpost.com/2019/04/21/colorado-air-pollution-oil-gas-sites/>

⁵³ Lee, M. (2019, May 20). Millions of abandoned wells spark climate, safety fears. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060364121>

⁵⁴ Riley, S. J. (2019, April 8). Regulator projects Alberta’s inactive well problem will double in size by 2030, documents reveal. *The Narwhal*. Retrieved from <http://thenarwhal.ca/regulator-projects-albertas-inactive-well-problem-will-double-in-size-by-2030-documents-reveal/>

year time frame—longer than the dozen years remaining to limit global warming to 1.5° C—methane can, pound for pound, trap 86 times more heat than carbon dioxide. (See footnote 1045.)

Real-world methane leakage rates from drilling and fracking operations greatly exceed earlier estimates. Methane escapes into the atmosphere from all parts of the extraction, processing, and distribution system, all the way to the burner tip. In the heavily drilled Barnett Shale of northeastern Texas, methane emissions were shown to be 50 percent higher than the EPA had estimated. Fracking operations and associated infrastructure contributed 71-85 percent of the methane emissions in the region. A 2018 analysis of methane leaks from the U.S. oil and gas supply chain as a whole found leakage rates were 60 percent higher than reported by the EPA, and a 2019 study in southwestern Pennsylvania found shale gas emissions that were underreported by a factor of five when compared to EPA estimates. (See footnotes 944, 962.)

Much of the methane emitted from drilling and fracking activities and associated infrastructure originates not from accidental leaks but from purposeful losses that are inherent to the design of the industry's machinery or to normal operating use and are, therefore, not possible to mitigate. (See footnotes 1147-1149.) Methane is vented into the atmosphere during routine maintenance on compressor stations and pipelines; to create evaporative cooling for LNG storage and transport; during the flowback period after a well is fracked; and as an emergency procedure to control pressures. Inactive, abandoned wells are also significant methane emitters. Methane leakage at the levels now being documented, using multiple approaches in measurement and modeling, negates previously hypothesized benefits from burning methane instead of coal in most existing power plants.

Rising methane levels in the atmosphere make increasingly difficult the urgent task of limiting global warming to below levels called for in the Paris Agreement, which was based on older presumptions that global methane levels had plateaued. Instead, methane levels began to rise in 2007 and then shot up sharply in 2014.

At this writing, the cause of this ongoing methane surge is a subject of scientific debate. One hypothesis holds fossil fuel sources as the major driver. Another attributes the increase to biogenic sources, especially ruminant livestock. A third possibility is that rising global temperatures may be triggering methane release from wetlands, particularly in the southern tropics. Alternatively, the atmosphere's ability to break methane molecules apart may have become impaired, slowing the natural decay rate of methane.⁵⁵

The fossil fuel hypothesis is supported by a major 2017 study led by NASA researchers using satellite measurements and isotopic analysis that can distinguish methane produced by microbes from methane emissions arising from oil and gas extraction. (See footnote 963.) Building on this research in a forthcoming study, Cornell University earth systems scientist Robert Howarth used isotopic analysis to identify shale gas and oil extraction as the source of at least one-third of total

⁵⁵ Fletcher, S. E. M., & Shaefer, H. (2019). Rising methane: A new climate challenge. *Science*, 364(6444), 932-933. doi: 10.1126/science.aax1828

methane emissions, showing that the North American fracking boom is globally important in the current rise in global methane levels and “may well be the leading cause of the increased flux.”⁵⁶

Climate researcher Euan Nisbet, who has called for a renewed emphasis on reducing methane emissions to combat climate change, notes that, whatever the relative contribution of its various sources, fossil fuel extraction represents a powerful lever for intervention. “If the increased methane burden is driven by increased emissions from natural sources, and if this is a climate feedback—the warming feeding the warming—then there is urgency to reduce anthropogenic emissions, which we can control.” Reducing methane emissions from fossil fuels is the highest priority because they are relatively large and “thus offer attractive targets for rapid reduction, which are essential if the Paris Agreement aims are to be attained.” (see footnote 952.)

3) Fracking and the disposal of fracking waste threaten drinking water.

Cases of drinking water sources contaminated by drilling and fracking activities, or by associated waste disposal, are proven. Contamination occurs through three confirmed pathways: spills; discharge of fracking waste into rivers and streams; and underground migration of chemicals, including gas, into drinking water wells.

Methane and fracking-related contaminants can reach drinking water sources through cracks in well casings, through spaces between the casing and the wellbore, through naturally occurring fractures and fissures connecting shale layers with aquifers, and through abandoned wells. Methane migration into drinking water aquifers can change water chemistry in ways that mobilize metals or release hydrogen sulfide. (See footnote 248.)

Researchers working in Texas found 19 different fracking-related contaminants—including cancer-causing benzene—in hundreds of drinking water samples collected from the aquifer overlying the heavily drilled Barnett Shale, thereby documenting widespread water contamination. In Pennsylvania, a solvent used in fracking fluid was found in drinking water wells near drilling and fracking operations known to have well casing problems. In California, state regulators admitted that they had mistakenly allowed oil companies to inject drilling wastewater into aquifers containing clean, potable water. (See footnotes 352, 356, 360.) A 2017 study found that fracking wastewater discharged into rivers and streams through treatment plants created dozens of brominated and iodinated disinfection byproducts that are particularly toxic and “raise concerns regarding human health.” (See footnote 286.)

Fracking also threatens drinking water supplies through water depletion, especially in arid regions. According to a 2019 report, the volume of water used for fracking U.S. oil wells has more than doubled since 2016. (See footnote 245.) Oil and gas operations in the arid Permian Basin used eight times more water for fracking in 2018 as they did in 2011, threatening groundwater supplies. (See footnote 17.) In Arkansas, researchers found that water withdrawals for fracking operations deplete streams used for drinking water and recreation.

⁵⁶ Howarth, R. W. (2019). Is shale gas a major driver of recent increase in global atmospheric methane? *Biogeosciences*. Manuscript under review. doi: 10.5194/bg-2019-131

With increasing volumes of wastewater now exceeding the storage capacity for underground injection wells—and with underground injection linked to earthquake risk—Texas, Colorado, and New Mexico are now petitioning the EPA to allow release of fracking wastewater into rivers and streams and to allow its use for irrigation and watering livestock. These practices further imperil drinking water sources.⁵⁷

The trend toward mega-fracking, with longer and more extensive horizontal wellbores per well pad, coupled with the ongoing proliferation in the number of wells, has pushed the demand for water use in fracking operations ever higher, exacerbating both the problem of drinking water depletion and the problem of how to dispose of ever-increasing amounts of toxic fracking wastewater. A 2018 study found that water used for U.S. fracking operations increased by 770 percent per well between 2011 and 2016, while the amount of wastewater generated increased by 1,440 percent. (See footnote 259.)

As we went to press, a new study in Pennsylvania shows that, of the wastewater that remains in-state, 52 percent is reused in additional extraction operations, a practice that further concentrates chemical contaminants, including radioactive substances. The final destination for 35 percent of the total volume of liquid oil and gas waste generated in Pennsylvania from 1991-2017 is unknown because of gaps in reporting systems.⁵⁸

4) Drilling and fracking contribute to toxic air pollution and ground-level ozone at levels known to have health impacts.

More than 200 airborne chemical contaminants have been detected near drilling and fracking sites. Of these, 61 are classified as hazardous air pollutants, including carcinogens; 26 are endocrine-disrupting compounds that have been linked to reproductive, developmental, and neurological damage. (See footnotes 134, 146.) Drilling and fracking operations emit fine particles and vapors that combine to create ground-level ozone (smog). Exposure to these pollutants is known to cause premature death, exacerbate asthma, and contribute to poor birth outcomes and increased rates of hospitalization and emergency room visits.

Of the lower 48 states, six states (Texas, Oklahoma, Colorado, North Dakota, West Virginia, and Pennsylvania) produce nearly 70 percent of the nation's natural gas and over 74 percent of onshore crude oil. These six states experience the highest levels of ground-level ozone and fine particle pollution attributable to oil and gas extraction activities.

Volatile organic compounds (VOCs) from drilling and fracking operations, together with nitrogen oxides, are responsible for 17 percent of locally produced ozone in Colorado's heavily drilled Front Range. (See footnote 160.) Colorado has exceeded federal ozone limits for the past decade, a period that corresponds to a boom in oil and gas drilling (See footnote 158.) Air

⁵⁷ Lee, M. (2018, December 20). Oil patch states want authority for wastewater solutions. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060110201>

⁵⁸ Hill, L. A. L., Czolowski, E. D., DiGiulio, D., & Shonkoff, S. B. C. (2019). Temporal and spatial trends of conventional and unconventional oil and gas waste management in Pennsylvania, 1991-2017. *Science of the Total Environment*, 674, 623-636. doi: 10.1016/j.scitotenv.2019.03.475

pollution near drilling and fracking operations is high enough in some Colorado communities to raise cancer risks, according to a 2018 study. (See footnote 145.)

Living near drilling and fracking operations significantly increases asthma attacks for residents of Pennsylvania. Those living near active gas wells are 1.5-4 times more likely to suffer from asthma attacks than those living farther away, with the closest group having the highest risk. (See footnotes 636, 637.)

In California, fracking occurs disproportionately in areas already suffering from serious air quality problems and can drive ozone and other federally regulated air pollutants to levels that violate air quality standards. (See footnotes 172, 173.) This increased air pollution and smog formation poses a serious risk to all those already suffering from respiratory issues, such as children with asthma. With an average of 203 high-ozone days a year, intensely fracked Kern County, California, is the fifth-most ozone-polluted county in the nation, according to the American Lung Association.

Several studies have documented a sharp uptick in atmospheric ethane, a gas that co-occurs with methane and whose presence is attributable to emissions from oil and gas wells. This trend reverses a previous, decades-long decline. Ethane is a potent precursor to ground-level ozone (See footnote 162-164.)

The United States leads the world in the number of drill site flaring operations. Flares are used to control pressure but, more frequently, to burn off natural gas as waste during oil drilling in places that lack infrastructure for gas capture and transport. The ongoing boom in domestic oil production enabled by fracking has caused natural gas flaring to proliferate. Emissions from flare stacks contribute to ozone creation and include several carcinogens, notably benzene and formaldehyde. Flaring also releases carbon monoxide, soot, and toxic heavy metals. In 2016, the EPA acknowledged that it had dramatically underestimated health-damaging air pollutants from flaring operations. (See footnotes 156, 157.) A 2017 study of plume samples from gas flares in North Dakota found that incomplete combustion from flaring is responsible for 20 percent of the total emissions of methane and ethane from the Bakken shale fields—more than double the expected value. (See footnote 152.) Results of a 2019 study of flaring in the Eagle Ford Shale region of Texas suggest that flaring may be a significant environmental exposure in counties where flare stacks are concentrated. (See footnote 137.)

5) Public health problems associated with drilling and fracking include poor birth outcomes, reproductive and respiratory impacts, and cancer risks.

Poor pregnancy outcomes and exacerbation of asthma have been linked to fracking activities in multiple studies in multiple locations using a variety of methodologies. (See footnote 1410.)

Studies of mothers living near oil and gas extraction operations consistently find impairments to infant health, including elevated risks for low birth weight and preterm birth. A 2017 study that examined birth certificates for all 1.1 million infants born in Pennsylvania between 2004-2013 found indicators of poorer infant health and significantly lower birth weights among babies born to mothers living near fracking sites. A 2015 Pennsylvania study found a 40 percent increase in the risk of preterm birth among infants born to mothers who lived nearby active drilling and

fracking sites, while a 2014 Colorado study found elevated incidence of neural tube defects and congenital heart defects. New studies in Texas and Colorado likewise found associations with infant deaths, high-risk pregnancies, and low birth weight. A 2017 pilot study in British Columbia found elevated levels of muconic acid—a marker of benzene exposure—in the urine of pregnant women living near fracking sites. (See footnotes 625, 627, 642, 664.)

As we went to press, a new pilot study reported elevated levels of barium and strontium in urine and hair samples of indigenous women living in an area of intense fracking activity in northeastern British Columbia. These trace metals, known to be released during hydraulic fracturing, are known developmental toxicants.⁵⁹

An emerging body of evidence, from both human and animal studies, shows harm to fertility and reproductive success from exposure to oil and gas operations, at least some of which may be linked to the dozens of known endocrine-disrupting chemicals used in hydraulic fracturing. (See footnotes 642, 1438, 1443, 1444.)

Other documented adverse health indicators among residents living near drilling and fracking operations variously include exacerbation of asthma as well as increased rates of hospitalization, ambulance runs, emergency room visits, self-reported respiratory problems and rashes, motor vehicle fatalities, trauma, drug abuse, and gonorrhea. Pennsylvania residents with the highest exposure to active fracked gas wells were nearly twice as likely to experience a combination of migraine headaches, chronic nasal and sinus symptoms, and severe fatigue. (See footnote 634.)

A 2017 Colorado study found higher rates of leukemia among children and young adults living in areas dense with oil and gas wells, while a Yale University research team reported that carcinogens involved in fracking operations had the potential to contaminate both air and water in nearby communities in ways that may increase the risk of childhood leukemia. The Yale team identified 55 known or possible carcinogens that are known to be used in fracking operations and that may be released into the air and water. Of these, 20 are linked to leukemia or lymphoma. (See footnotes 632, 1424.)

As we went to press, the *Pittsburgh Post-Gazette* documented 27 cases of Ewing’s sarcoma, a rare bone cancer that tends to strike young people, in four counties in southwestern Pennsylvania that are at the center of the Marcellus Shale fracking boom.⁶⁰ Six cases occurred in the same school district. (The typical rate is 250 cases of Ewing’s sarcoma per year in the United States as a whole. The cancer has no known cause.) There are also high numbers of other childhood cancers in the region, which is home to several polluting legacy industries. The Pennsylvania Department of Health reported “no conclusive findings” of a cancer cluster in the Canon-

⁵⁹ Caron-Beaudoin, ., Bouchard, M., Wendling, G., Barroso, A., Bouchard, M. F., Ayotte, P., . . . Verner, M. A. (2019). Urinary and hair concentrations of trace metals in pregnant women from Northeastern British Columbia: A pilot study. *Journal of Exposure Science & Environmental Epidemiology*. Advance online publication. doi: 10.1038/s41370-019-0144-3

⁶⁰ Templeton, D., & Hopey, D. (2019, May 14). Are the 27 cases of Ewing’s sarcoma near Pittsburgh a cluster? *Pittsburgh Post-Gazette*. Retrieved from <https://newsinteractive.post-gazette.com/blog/ewing-sarcoma-cancer-cluster-pittsburgh-washington-westmoreland/>

McMillan School District and Washington County, but as additional cases have come to light, calls for more comprehensive investigations are ongoing.^{61, 62, 63, 64, 65}

6) Occupational health and safety risks for workers are severe and include both physical and chemical hazards.

Drilling and fracking operations are exempt from federal Occupational Safety and Health Administration (OSHA) standards designed to prevent catastrophic releases of toxic, flammable, or explosive chemicals in workplaces. They are also exempt from OSHA rules written for the construction industry designed to prevent falls and other accidents on the job. Although announced by the agency as forthcoming in 1983, federal safety regulations for the oil and gas industry have never materialized.^{66, 67} Instead, inspectors can only apply the “general duty clause” which is widely recognized as grossly inadequate for an industry with unique hazards and a fatality rate far above the national average. Fatality rate data for the oil and gas industry are limited, but available data in the seven years leading up to 2015 show fatality rates in oil and gas extraction that are four to seven times the national fatality rate. In 2017, the most recent year for which data are available, 81 oil and gas extraction workers died on the job, accounting for 72 percent of the fatal work injuries in the mining sector, which overall has a fatality rate nearly four times the national average.^{68, 69}

Studies in specific states, as well as some national studies, have provided additional details on regional rates and circumstances of injuries and deaths. Fatality rates among workers in the oil and gas extraction sector in North Dakota were seven times the national fatality rates in this industry, which itself has more deaths from fires and explosions than any other private industry.

⁶¹ Templeton, D., & Hopey, D. (2019, March 28). CDC, state officials investigating multiple cases of rare cancer in southwestern Pa. *Pittsburgh Post-Gazette*. Retrieved from <https://www.post-gazette.com/news/health/2019/03/28/Ewing-sarcoma-Washington-Westmoreland-cancer-Canon-McMillan-school-cecil-pennsylvania/stories/201903280010>

⁶² Templeton, D. (2019, April 23). No Ewing sarcoma cluster in the Canon-McMillan School District, state says. *Pittsburgh Post-Gazette*. Retrieved from <https://www.post-gazette.com/news/health/2019/04/23/Ewing-sarcoma-cluster-Canon-McMillan-Pennsylvania-Health-Department/stories/201904230128>

⁶³ Schiller, M. (2019, April 24). Families affected by rare cancer demand answers after Pa. health dept. investigation results in “no conclusive findings.” *KDKA2, CBS Pittsburgh*. Retrieved from <https://pittsburgh.cbslocal.com/2019/04/24/families-demand-answers-pa-health-dept-cancer-cluster-findings/>

⁶⁴ Templeton D., & Hopey, D. (2019, May 14). The human toll—risk and exposure in the gas lands. *Pittsburgh Post-Gazette*. Retrieved from <https://newsinteractive.post-gazette.com/blog/childhood-cancer-pittsburgh-pennsylvania-canon-mcmillan-pollution/>

⁶⁵ Editorial Board (2019, May 22). Young lives at stake: Rural areas deserve answers on child cancers. *Pittsburgh Post-Gazette*. Retrieved from Young lives at stake: rural areas deserve answers on child cancers

⁶⁶ Jones, C. (2018, February 3). OSHA standards moot in Quinton rig explosion because of exemption for oil-and-gas industry. *Tulsa World*. Retrieved from http://www.tulsaworld.com/news/state/osha-standards-moot-in-quinton-rig-explosion-because-of-exemption/article_162d0efa-7860-5f4b-b982-ebdeb142c075.html

⁶⁷ Lee, M. (2019, June 13). Feds: Deadliest drilling accident in a decade ‘preventable.’ *E&E News*. Retrieved from <https://www.eenews.net/stories/1060564501>

⁶⁸ AFL-CIO. (2019). *Death on the job: The toll of neglect*. 28th Edition, Retrieved from https://aflcio.org/sites/default/files/2019-05/DOTJ2019Fnb_1.pdf

⁶⁹ Bureau of Labor Statistics. (2018). *Injuries, illnesses, and fatalities*. U.S. Department of Labor. Retrieved from <https://www.bls.gov/iif/oshwc/foi/foi-chart-data-2017.htm>

An increase in workplace deaths likewise accompanied the initial fracking boom period in West Virginia.

Between 2011 and 2016, at least 60 workers at oil and gas drilling sites in Oklahoma were killed on the job. In January 2018, a natural gas rig exploded in southeastern Oklahoma, killing five workers when natural gas exploded during the drilling process. A “factual update” issued in August 2018 as part of an ongoing investigation by the U.S. Chemical Safety Board (CSB), determined that a piece of safety equipment was unable to fully close on the day of the accident and that other safety corners had been cut (See footnotes 532, 533, 537.) As we went to press, the CSB, released the final report on the accident, emphasizing that, in fact, two preventive barriers designed to prevent uncontrolled gas blowouts had failed as a consequence of significant lapses in safety protocols. Warning alarms did not sound. All five workers who died were trapped inside the driller’s cabin when fire blocked both exit doors. This problem, inherent to the design of the cabin, is not exceptional. The CSB investigation found that “there is no guidance to ensure that an emergency evacuation option is present onboard these rigs or can protect workers in the driller’s cabin from fire hazards.”^{70, 71}

Pipeline construction workers also suffer elevated rates of injuries and fatalities, dying on the job 3.5 times more than workers in other industries.

All together, according to a 2018 investigation, 1,566 U.S. workers in the oil and gas drilling industry died from on-the-job injuries in the decade between 2008 and 2017.

A University of Tennessee study assessed the occupational inhalation risks from the hazardous and carcinogenic air pollutants emitted from various sources around fracking wells and found that chemical storage tanks presented the highest cancer risk. Benzene has been detected in the urine of wellpad workers in Colorado and Wyoming. The National Institute for Occupational Safety and Health named oil and gas extraction industry workers among those at risk for silicosis, an incurable lung disease caused by exposure to silica dust, from the silica sand that is used extensively in fracking operations. (See footnotes 548, 586, 594.)

7) Earthquakes are a proven consequence of both fracking and the underground injection of fracking waste.

Injection of fracking wastewater into underground disposal wells is a known trigger of earthquake swarms in multiple locations, as demonstrated by several major studies, using different methodologies. Newer research in Canada, Oklahoma, and China links the practice of fracking itself to earthquakes, including some that take place many miles from well sites and

⁷⁰ U.S. Chemical Safety and Hazard Investigation Board. (2019, June 12). *Gas blowout and fire at Pryor Trust Well IH-9*. Investigation Report No. 2018-01-I-OK. Retrieved from [Pryor_Trust_Report_FINAL_FOR_PUBLICATION.pdf](#)

⁷¹ U.S. Chemical Safety and Hazard Investigation Board (2019, June 12). CBS issues final report into fatal gas well blowout [Press release]. Retrieved from <https://www.csb.gov/csb-issues-final-report-into-fatal-gas-well-blowout/>

many years later, suggesting that seismic risks have been previously underestimated with much larger areas at risk and for longer periods of time.^{72, 73}

A 2017 study of the Fort Worth Basin showed that a recent swarm of small earthquakes in northern Texas was originating in long-inactive fault lines in deep formations where fracking wastewater was being injected. Human activity is the only plausible explanation. (See footnote 499.) Another study using satellite-based radar imagery provided proof that the migration of fracking wastewater into faults increased pressures in ways that triggered a 4.8-magnitude earthquake in east Texas in 2012, while a third study documented the rupture of a fault plane that set off a 4.9-magnitude earthquake in Kansas in 2014 immediately following a rapid increase in fracking wastewater injection nearby. (See footnotes 747, 748.)

The number of earthquakes of magnitude 3.0 or higher skyrocketed in Oklahoma starting with the advent of the fracking boom—with fewer than two per year before 2009 and more than 900 in 2015. The 5.8 earthquake that struck near Pawnee on September 3, 2016 was the strongest in Oklahoma’s history and prompted an order from state regulators to shut down 67 wastewater disposal wells in the area. (See footnotes 745, 746.) In October 2016, the EPA recommended a moratorium on the underground injection of fracking wastewater in certain earthquake-prone parts of Oklahoma because regulations had not solved the problem. (See footnote 743.) Earthquake frequency began to decline in the state in 2017. In February 2018, after a new cluster of earthquakes, the state further restricted fracking activities.⁷⁴

There is no evidence that fracking-induced earthquakes can be prevented solely by limiting the rate or volume of injected fluid. A 2018 analysis of shale basins across the United States found that shallower disposal wells can help lower the risk of earthquakes. However, injection of fracking waste into shallow formations increases the risk of groundwater contamination. (See footnote 707.)

In China’s Sichuan Province, a series of recent earthquakes have been linked to fracking, including one in December 2018 with a magnitude of 5.7, the largest fracking-induced earthquake to date. The likely cause was reactivation of unmapped faults by underground fluid pressure.⁷⁵ In February 2019, three additional earthquakes, all with a magnitude of over four, struck Sichuan Basin, killing two people, injuring 13, and damaging 20,000 homes. The government temporarily suspended fracking operations in the area.⁷⁶

⁷² Bhattacharya, P., & Viesca, R. C. (2019). Fluid-induced aseismic fault slip outpaces pore-fluid migration. *Science*, 364(6439), 464-468. doi: 10.1126/science.aaw7354

⁷³ Foulger, G. (2019, May 14). Fracking can cause earthquakes a long way from its site. *Cosmos*. Retrieved from <https://cosmosmagazine.com/geoscience/fracking-can-cause-earthquakes-a-long-way-from-its-site>

⁷⁴ Wethe, D. (2018, February 28). Oklahoma toughens oil fracking rules after shale earthquakes. *Bloomberg*. Retrieved from <https://www.bloomberg.com/news/articles/2018-02-27/oklahoma-toughens-oil-fracking-rules-as-shale-earthquakes-climb>

⁷⁵ Lei, X., Wang, Z., & Su, J. (2019). The December 2018 M_L 5.7 and January 2019 M_L 5.3 earthquakes in south Sichuan Basin induced by shale gas hydraulic fracturing. *Seismological Research Letters*, 90(3), 1099-1110. doi: 10.1785/0220190029

⁷⁶ Myers, S.L. (2019, March 8). China experiences a fracking boom, and all the problems that go with it. *New York Times*. <https://www.nytimes.com/2019/03/08/world/asia/china-shale-gas-fracking.html>

8) Fracking infrastructure poses serious potential exposure risks to those living nearby.

Drilling and fracking activities are relatively short-term operations, but compressor stations are semi-permanent facilities that pollute the air 24 hours a day as long as gas is flowing through pipelines. Day-to-day emissions from compressor stations are subject to highly episodic variations due to pressure changes and maintenance-related deliberate releases and can create periods of potentially extreme exposures. Compressor stations generally have shorter emissions stacks than other polluting facilities such as power plants, which means their harmful emissions are more concentrated at ground level than if released from a greater height. As we went to press, a new study of air emissions from 74 compressor stations in New York State found 39 chemicals known to be human carcinogens and documented large releases of greenhouse gases.⁷⁷

Because of their high pressures, compressor station explosions can have catastrophic consequences. On January 30, 2019, a compressor station in rural Michigan malfunctioned during a period of extreme cold and released a large amount of methane gas that ignited and exploded. On May 13, 2019, Boston-area physicians released a report detailing safety-related risks at a proposed natural gas compressor station in Weymouth, Massachusetts. In a worst case scenario explosion, injuries could extend for thousands of feet into densely populated residential neighborhoods, ignite an nearby industrial diesel fuel storage tank, and kill motorists driving on an adjacent highway.⁷⁸

Pipelines themselves can freeze, corrode, break, and leak. Low-pressure flow lines alone are responsible for more than 7,000 spills and leaks since 2009. (See footnote 1120.)

Significant pipeline accidents happen roughly 300 times each year in the United States and, between 1998 and 2017, killed 299 people and injured 1,190 others, according to the Pipeline and Hazardous Materials Safety Administration (PHMSA). In May 2019, PHMSA sent a warning to pipeline operators about increased risks of leaks and explosions caused by more frequent flooding, sinkholes, and severe rainfall patterns in the eastern United States.⁷⁹ In September 2018, heavy rains and landslides triggered the explosion of a pipeline in Beaver County, Pennsylvania, destroying a house.⁸⁰ All together, landslides have caused six pipeline explosions in the Appalachian region since early 2018.⁸¹

⁷⁷ Russo, P. N., & Carpenter, D. O. (2019). Air emissions from natural gas facilities in New York State. *International Journal of Environmental Research and Public Health*, 16(9), E1591. doi: 10.3390/ijerph16091591

⁷⁸ Baker, A., Bivens, M., Clapp, R., LaRocque, R., & Lundberg, B. (2019, May 13). Flammable, high-pressure industry in a populated coastal flood zone? Public safety and emergency response aspects of a proposed methane gas compressor in Weymouth. Greater Boston Physicians for Social Responsibility. Retrieved from <https://www.psr.org/blog/resource/flammable-high-pressure-industry-in-a-populated-coastal-flood-zone/>

⁷⁹ Pipeline Hazardous Materials Safety Administration. (2019, May 2). Pipeline safety: Potential for damage to pipeline facilities caused by earth movement and other geological hazards. *Federal Register*. Retrieved from <https://www.federalregister.gov/documents/2019/05/02/2019-08984/pipeline-safety-potential-for-damage-to-pipeline-facilities-caused-by-earth-movement-and-other>

⁸⁰ Phillips, S. (2019, May 21). Federal pipeline safety regulators issue warning on floods and subsidence. *StateImpact Pennsylvania*. Retrieved from <https://stateimpact.npr.org/pennsylvania/2019/05/21/federal-pipeline-safety-regulators-issue-warning-on-floods-and-subsidence/>

⁸¹ Soraghan, M. (2019, June 4). Landslides, explosions spark fear in pipeline country. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060472727>

Gas-fired power plants are major emitters of carbon monoxide and nitrogen oxides, which contribute to smog.

In the Upper Midwest, Wisconsin residents living near silica sand mining operations that service the fracking industry reported dust exposure and respiratory problems. Silica dust is a known cause of silicosis and lung cancer. West Texas is also experiencing a fracking sand boom where roughly 20 new sand mines have opened since July 2017. (See footnote 17.)

Fracking infrastructure in the United States also includes 400 underground gas storage facilities in 31 states, with aging equipment and scant federal oversight. The four-month leak at the nation's fifth largest facility, Aliso Canyon in southern California, between October 2015 and February 2016 resulted in exposures of a large suburban population to an uncontrollable array of chemicals. With a release of nearly 100,000 metric tons of methane, it became the worst methane leak in U.S. history. (See footnote 1185.)

The Aliso Canyon blow-out exposed residents in the region to benzene spikes, high ongoing odorant releases, hydrogen sulfide at levels far above average urban levels, and many other contaminants of concern. More than 8,300 households were evacuated and relocated, with residents reporting multiple symptoms, including headaches, nosebleeds, eye irritation, and nausea. In May 2019, state investigators announced that the cause of the massive leak at Aliso Canyon was rupture of a well casing caused by microbial corrosion within a well that had been originally drilled in 1954. Over the years, the casing had come in contact with groundwater.⁸² The report also faulted the operator, SoCalGas, for failure to monitor and investigate more than 60 previous leaks at the gas storage complex.⁸³

In a 2018 analysis of the safety risks of all 14 facilities in California that store gas in depleted oil fields, the California Council of Science and Technology found that gas companies do not disclose the chemicals they are pumping underground nor do state regulators possess the necessary information to assess risks. Further, many wells servicing the storage fields are 60 to 90 years old with no regulatory limit to the age of the well. (See footnote 1178.)

LNG facilities—and the pipelines, coastal terminals, and ships that service them—are a rapidly growing component of fracking infrastructure as the shale gas boom has allowed the United States to seek long-term supply contracts for natural gas exports. In July 2017, the United Kingdom received its first delivery of LNG from the Sabine Pass export terminal in Louisiana. The Cove Point LNG export facility in Maryland sent its first shipments of Marcellus Shale gas, destined for Japan and India, in spring 2018. The United States is now a top international seller of natural gas with LNG exports expected to double by the end of 2019. At this writing, three LNG export terminals are in operation in the United States with another 22 in construction or approved for construction.^{84, 85}

⁸² Blade Energy Partners. (2019, May 16). *Root cause analysis of the uncontrolled hydrocarbon release from Aliso Canyon. SS-25*. California Public Utilities Commission. Retrieved from ftp://ftp.cpuc.ca.gov/News_and_Outreach/SS-25%20RCA%20Final%20Report%20May%2016,%202019.pdf

⁸³ Zaveri, M. (2019, May 17). Corroded well lining caused Aliso Canyon gas leak that displaced thousands, report says. *New York Times*. Retrieved from <https://www.nytimes.com/2019/05/17/business/porter-ranch-gas-leak.html>

⁸⁴ Federal Energy Regulatory Commission. (2018, October 23). North American LNG import/export terminals—existing. Retrieved from <https://www.ferc.gov/industries/gas/indus-act/lng/lng-existing.pdf>

LNG is purified methane in the form of a bubbling, super-cold liquid. It is created through the capital-intensive, energy-intensive process of cryogenics and relies on evaporative cooling to keep the methane chilled during transport. Explosive and with the ability to flash-freeze human flesh, LNG creates acute security and public safety risks. Its greenhouse gas emissions are 30 percent higher than conventional natural gas due to refrigeration, venting, leaks, and flaring, which is used to control pressure during regasification. The need to strip volatile impurities such as benzene from the gas prior to chilling it also makes LNG liquefaction plants a source of toxic air pollutants. (See footnotes 1226-1242.)

Cheniere Energy's Sabine Pass terminal in Louisiana became the subject of a federal investigation in January 2019 after a steel storage tank cracked and escaping LNG quickly vaporized into a flammable cloud. Another tank was found to be leaking gas from multiple places. PHMSA ordered both tanks shut down.⁸⁶

In May 2019, the state of Oregon denied a Clean Water Act permit for the proposed Jordan Cove LNG export terminal, and the fracked gas pipeline that would serve it, over concerns about likely harm to streams, estuaries, and wetlands. This infrastructure project cannot be built without the state permit, but the company has reapplied.⁸⁷

9) Drilling and fracking activities bring naturally occurring radioactive materials to the surface.

Naturally occurring radioactive materials that occur in shale layers containing oil and natural gas are brought to the surface in the solid waste removed during drilling (drill cuttings) and in fracking wastewater. Radionuclides can also build up in pipes and equipment, and fracking itself can open pathways for the migration of radioactive materials. Exposure to increased radiation levels from fracking materials is a risk for both workers and residents.

Radon levels in Pennsylvania homes have risen since the advent of the fracking boom, and buildings in heavily drilled areas have significantly higher radon readings than areas without well pads—a discrepancy that did not exist before 2004. (See footnote 511.) As we went to press, a new study reported a similar pattern in Ohio.⁸⁸

Also in Pennsylvania, a 2019 study measured levels of radium in drill cuttings that would exceed regulatory limits for disposal in landfills if drill cuttings were not exempt from federal regulations governing hazardous waste. Drill cuttings from Pennsylvania fracking operations are

⁸⁵ U.S. Department of Energy (2018, November 26). Long term applications received by the DOE/FE to export domestically produced LNG from the lower 48 states. Retrieved from <https://www.energy.gov/sites/prod/files/2018/12/f58/Summary%20of%20LNG%20Export%20Applications.pdf>

⁸⁶ Mandel, J., & Zou, J. J. (2019, May 30). Leaks threaten safety—and success—of America's top natural gas exporter. *E&E News, Houston Chronicle*, and Center for Public Integrity. Retrieved from <https://publicintegrity.org/environment/leaks-threaten-safety-and-success-of-americas-top-natural-gas-exporter/>

⁸⁷ Oregon Department of Environmental Quality. (2019, May 6). DEQ issues a decision on Jordan Cove's application for 401 Water Quality Certification [Press statement]. Retrieved from <https://www.oregon.gov/newsroom/pages/NewsDetail.aspx?newsid=3273>

⁸⁸ Xu, Y., Sajia, M., & Kumar, A. (2019). Impact of the hydraulic fracturing on indoor radon concentrations in Ohio, a multilevel modeling approach. *Frontiers in Public Health*, 7, 76. doi: 10.3389/fpubh.2019.00076

routinely dumped in municipal waste landfills in Ohio and New York. (See footnote Swiedler, 2019.)

A variety of radioactive substances—including radium, thorium, and uranium—have been detected in fracking wastewater. A 2018 study in the Marcellus Shale region showed that extreme salinity, as well as the chemical composition of fracking fluid, interacts with the shale during the fracking process in ways that mobilize radium and make fracking wastewater radioactive. (See footnote 497.)

A 2018 simulation study of radium-226 in fracking wastewater from North Dakota’s Bakken Shale found potential risk to human health from fracking wastewater spills into surface water. (See footnote 500.)

10) Drilling and fracking activities harm wildlife through multiple pathways.

Animals serve as sentinels for chemical exposures that may also affect human residents who share their environment. In addition, animals perform ecosystem services essential to human existence, as confirmed by a landmark United Nations report in May 2019.⁸⁹ For both reasons, harm to wildlife by fracking operations has consequences for public health.

Birds and other wildlife have been poisoned by fracking wastewater held in open pits, while spills and discharges of fracking waste have precipitated mass die-offs of fish, as documented in Ohio, Kentucky, and Pennsylvania. (See footnotes 406, 434.) Freshwater mussels, which are endangered throughout North America, accumulate contaminants, including strontium, when fracking wastewater is discharged through sewage treatment plants. (See footnote 255.) Chemicals in fracking waste are toxic to, or otherwise disrupt development in, many fish and amphibian species. (See footnotes 246, 326.) In remote locations in Pennsylvania, streams once classified as high-quality brook trout habitat had no fish at all after the arrival of drilling and fracking operations. (See footnote 311.) Overall, aquatic habitats impacted by fracking activities show decreased biodiversity.

Wildlife is harmed by fracking through loss of food resources. Water fleas (*Daphnia spp.*), the basis of freshwater aquatic food chains, become unable to vertically navigate through water columns upon exposure to trace amounts of fracking fluid. (See footnote 241.) In West Virginia, populations of Louisiana Waterthrush, which rely on aquatic food sources, have declined in areas of drilling and fracking. (See footnote 247.)

Light and noise pollution from oil and gas production disrupt wildlife behavior, including in protected areas and critical habitats of endangered species, and have been linked to mass die-offs of waterfowl and declines in songbird populations in Alberta, Canada and New Mexico. (See footnotes 678, 693.) Chronic noise from drilling and fracking operations interferes with the ability of birds to respond to acoustic cues. (See footnotes 1111, 1112.)

⁸⁹ IPBES. (2019, May 6). *Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. E. S. Brondizio, J. Settele, S. Díaz, & H. T. Ngo (eds). Advance unedited version. Bonn, Germany: IPBES Secretariat. Retrieved from https://www.ipbes.net/system/tdf/spm_global_unedited_advance.pdf?file=1&type=node&id=35245

Fracking harms wildlife through climate change and habitat destruction. Oil and gas infrastructure, including compressor stations, has caused declines in grassland songbirds in Canada. Sand mining operations in Texas are imperiling the dunes sagebrush lizard. The proposed route of the Atlantic Coast Pipeline cuts through critical habitat for four endangered species. A 2019 study found that forest disturbances driven by drilling and fracking activities are altering the abundance of songbird populations in central Appalachia, particularly harming species whose habitats are forest interiors.⁹⁰ Well pad construction hastens the spread of invasive non-native plant species which harms wildlife habitat. (See footnote 925.)

According to economists, the cost of wildlife habitat fragmentation due to fracking is \$3.5-4.45 billion. (See footnote 1276.)

11) The risks posed by fracking in California are unique.

Hydraulic fracturing in California is practiced differently than in other states, making its risks different as well. Wells are more likely to be vertical rather than horizontal, and the oil-containing rock layer is shallower. Hence, much less water is used per well for fracking as compared to other states. However, the fracking fluid used is much more chemically concentrated, the fracking zones are located closer to overlying aquifers, and the risk of a fracture reaching groundwater is higher.

California is the only state that allows wastewater from oil fields to be held in unlined open pits, which creates risks for both air and groundwater contamination. As of July 2018, 1,086 such pits were operational in the Central Valley, with the vast majority in Kern County. An investigation by reporters for NBC Bay Area found additional pits not on the state's official list. In at least two instances, toxic wastewater from the pits had migrated underground for more than a mile.⁹¹

In 2014, the discovery that companies had, for years, been wrongly allowed to inject fracking waste directly into California's freshwater aquifers led to the closing of 175 disposal wells. Impacts on drinking water are unknown. (See footnotes 289, 290.)

Most new fracking operations in California take place in areas with a long history of oil extraction. A high density of old and abandoned wells provides potential leakage pathways, should fractures intersect with them. And although fracking requires considerably less water per well in California, it takes place disproportionately in areas of severe water shortages and can compete with municipal and agricultural needs for freshwater.

The combination of ongoing drought and lack of disposal options has resulted in the diversion of fracking wastewater to farmers for irrigation of crops, raising concerns about contaminated water potentially affecting food crops and draining into groundwater. Investigative reports in 2015

⁹⁰ Farwell, L. S., Wood, P. B., Brown, D. J., & Sheehan, J. (2019). Proximity to unconventional shale gas infrastructure alters breeding bird abundance and distribution. *The Condor*. Advance online publication. doi: 10.1093/condor/duz020

⁹¹ Stock, S., Campos, R., Horn, M., & Ettema, K. (2018, July 31). Toxic wastewater from oil fields endangers California's water supply, scientists tell NBC Bay Area. *NBC Bay Area*. Retrieved from <https://www.nbcbayarea.com/investigations/Toxic-WasteWater-From-Oil-Fields-Endangers-Californias-Water-Supply-Scientists-Tell-NBC-Bay-Area-483089841.html>

revealed that Chevron Corporation piped 21 million gallons of recycled oil and gas wastewater per day to farmers for crop irrigation. Tests showed the presence of several volatile organic compounds, including acetone, which is linked in lab studies to kidney, liver, and nerve damage. (See footnotes 924-926.)

These activities project fracking's impacts onto geographically distant populations, especially in cases where wastewater is used in crop irrigation and livestock watering. Food is a troubling possible exposure route to fracking chemicals, in part because so little is known about these chemicals. According to a hazard assessment of chemicals used in California oil drilling operations that reuse wastewater for livestock watering and other agricultural purposes, more than one-third of the 173 chemicals used are classified as trade secrets: Their identities are entirely unknown. Of the remainder, ten are likely carcinogens, 22 are toxic air contaminants, and 14 had no toxicity data available. Estimating risks to consumers of the food produced with wastewater irrigation is thus not possible. (See footnote 919.)

The other area in California where fracking is concentrated, the Los Angeles Basin, is located directly under one of the most populous cities in the world. As of 2018, there were 3,468 active and 1,850 inactive oil and gas wells in Los Angeles County. (LA Dept of Health 2018). At least 1.7 million people in Los Angeles live or work within one mile of an active oil or gas well. California does not currently limit how close to residences or schools drilling and fracking activities may be conducted. A 2017 study shows that many of the same chemicals used to stimulate wells during fracking operations are also used in urban oil wells located in densely populated areas of southern California. (See footnote 295.)

12) Fracking in Florida presents many unknowns.

Gas and oil drilling in Florida, now only a minor industry, is currently concentrated in two areas: the western Panhandle near Pensacola and the Everglades area of southwest Florida. So far, fracking has been used at least once—in 2013 at a test well located in the Corkscrew Swamp Sanctuary near Naples in Collier County. The Texas company that fracked this well, using high-pressure acid fracturing techniques to dissolve the bedrock, received a cease and desist order from the Florida Department of Environmental Protection.⁹²

Renewed interest in oil and gas exploration in Florida has prompted public debate about fracking and whether to promulgate state regulations or prohibit it outright, possibly including a ban on the use of acid-dissolving technologies in addition to hydraulic fracturing *per se*. Bills that sought to ban fracking but not matrix acidizing failed to pass in the Florida legislature in the 2019 legislative session.⁹³

Florida has more available groundwater than any other state; it is the drinking water source for 93 percent of Florida's population. Groundwater is also pumped to irrigate crops and provide

⁹² Could leftover wastewater from balky oil well end up a health hazard? (2015, January 1). *Naples Daily News*. Retrieved from <http://archive.naplesnews.com/news/local/could-leftover-wastewater-from-balky-oil-well-end-up-a-health-hazard-ep-853723380-335781721.html/>

⁹³ Gross, S. J. (2019, April 17). Environmentalists cite report on Florida oil spills as bid to ban fracking stalls. *Miami Herald*. Retrieved from <https://www.miamiherald.com/news/local/environment/article229355974.html>

frost protection to winter crops. Most of this water is held in the Floridan Aquifer, which extends across the entire peninsula and into parts of Georgia, Alabama, and South Carolina. This aquifer provides drinking water to ten million people in both rural and urban communities, including residents of several major cities: Gainesville, Jacksonville, Orlando, Tallahassee, and Tampa. Overlain by smaller, shallower aquifers in southern Florida, it is a highly permeable, highly interconnected subterranean system, with water moving rapidly in multiple directions through massive shelves of limestone, which represent the dissolved shells and fossilized skeletons of prehistoric marine organisms. Honeycombed with pores, fissures, joints, and caves, the underground terrain of the Floridan Aquifer resembles a vast, brittle, sponge partly covered with sand and clay. Springs and sinkholes are common.^{94, 95}

It is not known whether fracking in Florida could induce sinkholes to open up or whether alterations in underground pressures could cause springs to go dry. Certainly, Florida's porous geology makes it vulnerable to groundwater contamination. Crumbly, soluble limestone offers pathways for contaminants spilled on the surface to travel deep into the aquifer, where they can be dispersed over great distances by the aquifer's river-like currents. A 2003 experiment with a dye tracer showed the special susceptibility of Florida's groundwater to potential contamination; within a few hours, the red dye traveled through the aquifer a distance (330 feet) that researchers had presumed would take days.⁹⁶

Compounding these risks, Florida's exposure to hurricanes makes it vulnerable to spills of fracking-related chemicals. In August 2017, flooding from Hurricane Harvey shut down fracking sites in Texas and triggered 31 separate spills at wells, storage tanks, and pipelines. (See footnotes 888-890.)

It is unclear where Florida would send any potential fracking wastewater for treatment and/or for underground injection. Florida currently injects other types of liquid waste into disposal wells that are located above, rather than below, oil- and gas-producing zones. The injection of fracking waste in these same shallower layers may make earthquakes less likely than, for example, in Oklahoma (where it is injected into deep formations), but it would also locate that waste closer to the aquifers, which are poorly mapped. To undertake the necessary study to determine how securely Florida's geological formations could contain wastewater from drilling and fracking operations and protect drinking water would be, in the words of two geophysicists, "a monumental task requiring full-time work...for decades."⁹⁷ There are reasons to be concerned. In

⁹⁴ Johnson, R. H., & Bush, P. W. (2013, September 4). *Summary of the hydrology of the Floridan Aquifer System in Florida and in parts of Georgia, South Carolina, and Alabama*. U.S. Geological Survey Professional Paper 1403-A. Retrieved from <https://sofia.usgs.gov/publications/papers/pp1403a/>

⁹⁵ Tihansky, A. B., & Knochenmus, L. A. (2001, February 13). *Karst features and hydrogeology in west-central Florida*. U.S. Geological Survey Water-Resources Investigations Report 01-4011. Retrieved from https://water.usgs.gov/ogw/karst/kigconference/abt_karstfeatures.htm

⁹⁶ Miami-Dade County Wellfield Technical Work Group. (2017, July 31). *Final Report*. Retrieved from <http://ecmrer.miamidade.gov:8080/reports/WellfieldTechnicalWorkgroupReportJuly2017.pdf>

⁹⁷ Russo, R., & Sreaton, E. (2016, May 9). Should Florida 'frack' its limestone for oil and gas? Two geophysicists weigh in. *University of Florida News*. Retrieved from <http://news.ufl.edu/articles/2016/05/should-florida-frack-its-limestone-for-oil-and-gas-two-geophysicists-weigh-in.php>

South Florida in the 1990s, 20 stringently regulated disposal wells failed and leaked sewage waste into the Upper Floridan Aquifer, a potential future source of drinking water for Miami.⁹⁸

13) The economic instabilities of fracking exacerbate public health risks.

Fracking is not a stable business. Although the fracking boom has lifted U.S. oil and gas production to all-time highs, shale wells drilled in the past five years are pumping significantly less oil and gas than their operators predicted to their investors. Because the production of individual shale wells falls precipitously over the course of a few years, operators must continue drilling new wells at an ever-swifter pace to maintain growth targets—even as owners are under pressure to cut costs in the face of price declines.

The result is lack of profits, dependency on Wall Street financing and low interest rates, and asset sell-offs throughout the fracking industry as a whole. (See footnote Olson, Wall St. J., Jan 2, 2019.) Between 2008 and 2018, leading fracking companies spent \$230 billion more than they earned, covering the gap with debt.⁹⁹

Even as oil prices have rebounded somewhat during the past two years, fracking companies are, collectively, still spending more on drilling than they receive by selling oil and gas. By 2018, only five of the largest 20 fracking companies were making more cash than they spent, and the stock prices of all 29 shale producers fell.^{100, 101}

These unstable economic fundamentals have multiple consequences for public health and safety as cumulative impacts mount from wells both old and new.

Pressures to cut costs incentivize cutbacks in safety measures and leave landscapes pock-marked by increasing numbers of hastily abandoned wells in need of remediation and long-term monitoring. Orphaned wells left behind by industry during energy price downturns or after bankruptcy are poorly monitored and, as conduits for gas and fluid leakage, become health and safety threats. Abandoned wells pose risks for soil and water contamination and can emit toxic air pollution and greenhouse gases. Some have exploded.^{102, 103, 104}

⁹⁸ Lustgarten, A. (2012, June 21). Injection wells: the poison beneath us. *ProPublica*. Retrieved from <https://www.propublica.org/article/injection-wells-the-poison-beneath-us>

⁹⁹ Crooks, E. (2018, March 4). Boom times for US shale oil producers. *Financial Times*. Retrieved from <https://www.ft.com/content/2c7f6a38-1d37-11e8-956a-43db76e69936>

¹⁰⁰ McLean, B. (2018, September 1). The next financial crisis lurks underground.” *New York Times*. Retrieved from <https://www.nytimes.com/2018/09/01/opinion/the-next-financial-crisis-lurks-underground.html>

¹⁰¹ Hiller, J. (2019, April 2). Cash flow still weak at U.S. shale firms, stock prices underperform. *Reuters*. Retrieved from <https://www.reuters.com/article/usa-shale-finances/cash-flow-still-weak-at-u-s-shale-firms-stock-prices-underperform-idUSL1N211001>

¹⁰² Zoffos, J. (2018, January 16). ‘Orphaned’ oil and gas wells are on the rise.” *High Country News*. Retrieved from <http://www.hcn.org/articles/energy-industry-orphaned-oil-and-gas-wells-are-on-the-rise>

¹⁰³ Cox, S. (2019 March 19). B.C. left holding massive bill for hundreds of orphan wells as frack companies go belly up. *The Narwhal*. Retrieved from <https://thenarwhal.ca/b-c-left-holding-massive-bill-for-hundreds-of-orphan-gas-wells-as-frack-companies-go-belly-up/>

In both North Dakota's Bakken Shale and western Texas' Permian Basin, cost-cutting pressures, coupled with a desperate rush to drill new oil wells to compensate for declining rates of production from older wells, have meant that waste natural gas generated as a byproduct of oil drilling is simply vented or flared rather than captured, in order to speed up the rate of oil drilling.^{105, 106} By April 2019, the amount of natural gas burned off via flaring in the Permian oil fields had reached a record high and exceeded the amount of gas needed to power every residence in Texas.¹⁰⁷ Flaring, a leading source of toxic air pollution and smog, is a public health menace.¹⁰⁸

Independent economic analyses also show that the promise of local job creation has been greatly exaggerated, with many jobs going to out-of-area workers. Reports show that oil and gas jobs increasingly will be lost to automation.

With the arrival of drilling and fracking operations, communities have experienced steep increases in rates of crime including sex trafficking, rape, assault, drunk driving, drug abuse, and violent victimization—all of which carry public health consequences, especially for women. Social costs include road damage, failed local businesses, loss of affordable rental housing, and strains on law enforcement and municipal services. School districts report increased stress. Economic analyses have found that drilling and fracking activities threaten property values and can diminish tax revenues for local governments. Additionally, drilling and fracking on private lands pose an inherent conflict with mortgages and property insurance due to the hazardous materials used and the associated risks.

14) Fracking raises human rights and environmental justice issues.

Inequalities in opportunities to participate in environmental decision-making and uneven impacts of environmental hazards along racial and socioeconomic lines are signature issues of environmental justice. In multiple regions where fracking is practiced, well pads and associated infrastructure are disproportionately sited in non-white, indigenous, or low-income communities.^{109, 110}

¹⁰⁴ Riley, S. J. (2019, April 3). Notley vs. Kenney on how to deal with Alberta's 167,000 inactive and abandoned oil and gas wells. *The Narwhal*. Retrieved from <https://thenarwhal.ca/notley-vs-kenney-on-how-to-deal-with-albertas-167000-inactive-and-abandoned-oil-and-gas-wells/>

¹⁰⁵ Ngai, C. (2018, October 9). Mind the drop: decline rates from maturing oil wells on the rise. *Bloomberg*. Retrieved from <https://www.bloombergquint.com/business/mind-the-drop-decline-rates-from-maturing-oil-wells-on-the-rise>

¹⁰⁶ Lee, M. (2019, May 8). Gas glut spurs near-record flaring across shale states. *E&E News*. Retrieved from <https://www.eenews.net/energywire/stories/1060292021>

¹⁰⁷ Hiller, J. (2019, June 4). Natural gas flaring hits record high in first quarter in U.S. Permian Basin. *Reuters*. Retrieved from <https://www.reuters.com/article/us-usa-shale-flaring/natural-gas-flaring-hits-record-high-in-first-quarter-in-us-permian-basin-idUSKCN1T5235>

¹⁰⁸ Crowley, K., & Collins, R. (2019, April 11). Oil producers are burning enough gas to power every home in Texas. *Bloomberg*. Retrieved from <https://www.bloomberg.com/news/articles/2019-04-10/permian-basin-is-flaring-more-gas-than-texas-residents-use-daily>

¹⁰⁹ Healy, N., Stephens, J. C., & Malin, S. A. (2019). Embodied energy injustices: Unveiling and politicizing the transboundary harms of fossil fuel extractivism and fossil fuel supply chains. *Energy Research & Social Science*, 48, 219-234. doi: 10.1016/j.erss.2018.09.016

A 2019 analysis of socio-demographic characteristics of people living close to drilling and fracking operations in the states of Colorado, Oklahoma, Pennsylvania, and Texas found strong evidence that minorities, especially African Americans, disproportionately live near fracking wells.¹¹¹

Similarly, a pattern of racially biased permitting was documented in the heavily fracked Eagle Ford area of southern Texas where a public health research team showed that disposal wells for fracking wastewater were more than twice as common in areas where residents are more than 80 percent people of color than in majority white communities.¹¹² Since 2007, more than 1,000 waste disposal wells have been permitted in the Eagle Ford Shale region where groundwater is the primary source of drinking water.¹¹³

In intensely drilled Denton, Texas, a study found that those benefiting most from Denton's mineral wealth tended to live elsewhere, while the environmental burdens remained local and fell hardest on those who did not have a voice in mineral-leasing decisions. "Non-mineral owners are essentially excluded from the private decisions, as the mineral owners not only receive the direct monetary benefits, but also hold a great deal of state-sanctioned power to decide if and how [shale gas development] proceeds."¹¹⁴

Poor communities of color are disproportionately affected by drilling activities in California. Of Los Angeles residents living within a quarter-mile of a well, more than 90 percent are people of color. In November 2015, civic groups led by youth sued the city of Los Angeles for racial discrimination based on allegations of a preferential permitting process and unequal regulatory enforcement for oil wells located in neighborhoods of color. Together, these differential practices have resulted in a higher concentration of wells with fewer environmental protections in Black and Latino communities.¹¹⁵ South Coast Air Quality Management District records show that oil drilling operations in Los Angeles neighborhoods released into the air 21 million pounds of toxic chemicals between June 2013 and February 2017. These emissions included crystalline silica, hydrofluoric acid, and formaldehyde.¹¹⁶

Across California, gas-fired power plants are disproportionately located in disadvantaged communities, as classified by an environmental justice screening tool developed by the state

¹¹⁰ Clough, E. (2018). Environmental justice and fracking: A review. *Current Opinion in Environmental Science & Health*, 3, 14-18. doi: 10.1016/coesh.2018.02.005

¹¹¹ Zwickl, K. (2019). The demographics of fracking: A spatial analysis for four U.S. states. *Ecological Economics*, 161, 202-215. doi: 10.1016/j.ecolecon.2019.02.001

¹¹² Johnston, J. E., Werder, E., & Sebastian, D. (2016). Wastewater disposal wells, fracking, and environmental justice in southern Texas. *American Journal of Public Health*, 106(3). doi: 10.2105/AJPH.2015.303000

¹¹³ Bienkowski, B. (2016, February 3). Poor, minorities carry the burden of frack waste in South Texas. *Environmental Health News*. Retrieved from <http://www.environmentalhealthnews.org/ehs/news/2016/feb/fracking-waste-eagle-ford-texas-hispanic-environmental-justice>

¹¹⁴ Fry, M., Briggie, A., & Kincaid, J. (2015). Fracking and environmental (in)justice in a Texas city. *Ecological Economics*, 117. doi: 10.1016/j.ecolecon.2015.06.012

¹¹⁵ Reyes, E. A. (2015, November 6). Environmental advocates sue L.A., accusing it of "rubber stamping" oil drilling plans. *Los Angeles Times*. Retrieved from <http://www.latimes.com/local/lanow/la-me-ln-lawsuit-oil-drilling-20151106-story.html>

¹¹⁶ Fleming, J. C., & Kim, C. (2017, December 13). Danger next door: The top 12 air toxics used for neighborhood oil drilling in Los Angeles. Center for Biological Diversity. Retrieved from <http://www.biologicaldiversity.org/publications/papers/DangerNextDoor.pdf>

Office of Environmental Health Hazard Assessment.¹¹⁷ More than three-quarters of the 21,397 new oil wells drilled in California between 2011 and 2018 are located in low-income minority communities, according to state data.¹¹⁸

In Greeley, Colorado, a massive well pad housing 24 wells was sited near Bella Romera Academy, an elementary school in a low-income community where 82 percent of students are Latino, after earlier plans were scrapped for a site near a charter school where students are majority white and middle-class.¹¹⁹

In May 2018, community groups in North Carolina filed an environmental justice complaint against the Atlantic Coast Pipeline, alleging the project poses disproportionate risk of harm to people of color. Thirteen percent of those living along the pipeline route are Native Americans in a state where Native Americans make up only 1.2 percent of the population.^{120, 121} A compressor station in Virginia that would service this pipeline is located in a historically African-American community.¹²²

In Pennsylvania, evidence shows that gas-fired power plants are disproportionately located in low-income and minority communities.¹²³ A geographic study found a higher concentration of drilling and fracking operations in impoverished communities throughout the state of Pennsylvania as well as in localized areas of West Virginia, but it did not find differences with respect to race. “The results demonstrate that the environmental injustice occurs in areas with unconventional wells in Pennsylvania with respect to the poor population.”¹²⁴ These findings are supported by census tract data in western Pennsylvania showing that among nearly 800 gas wells, only two were drilled in communities where home values exceeded \$200,000.¹²⁵

Similarly, in Ohio, geographic evidence reveals that disposal wells for fracking wastewater are

¹¹⁷ PSE Healthy Energy. (2017, April). *Natural gas power plants in California’s disadvantaged communities*. Retrieved from https://www.psehealthyenergy.org/wp-content/uploads/2017/04/CA.EJ_Gas_Plants.pdf

¹¹⁸ Center for Biological Diversity (2018, August 16). Analysis: Most oil wells approved by Gov. Brown are in low-income areas, communities of color [Press statement]. Retrieved from https://www.biologicaldiversity.org/news/press_releases/2018/california-oil-drilling-08-16-2018.php

¹¹⁹ Turkewitz, J. (2018, May 31). In Colorado a fracking boom and a population explosion collide. *New York Times*. Retrieved from <https://www.nytimes.com/2018/05/31/us/colorado-fracking-debates.html>

¹²⁰ McKenna, P. (2018, May 18). Atlantic Coast Pipeline faces civil rights complaint after key permit is blocked. *Inside Climate News*. Retrieved from <https://insideclimatenews.org/news/18052018/atlantic-coast-pipeline-natural-gas-civil-rights-environmental-justice-epa>

¹²¹ Emmanuel, R. E. (2017). Flawed environmental justice analysis. *Science*, 375(6348), 260. doi: 10.1126/science/aao2684

¹²² Finley-Brook, M., Williams, T. L., Caron-Sheppard, J. A., & Jaromin, M. K. (2018). Critical energy justice in U.S. natural gas infrastructure. *Energy Research & Social Sciences*, 41, 176-190. doi: 10.1016/j.erss.2018.04.019

¹²³ Nextgen Climate America, & PSE Healthy Energy. (2018). Our air: Health and equity impacts of Pennsylvania’s power plants. Retrieved from <https://nextgenpolicy.org/wp-content/uploads/2016/07/NGCA-PSE-Our-Air-Health-and-Equity-Impacts-PA-2016-0710-2.pdf>

¹²⁴ Ogneva-Himmelberger, Y., & Huang, L. (2015). Spatial distribution of unconventional gas wells and human populations in the Marcellus Shale in the United States: Vulnerability analysis. *Applied Geography*, 60, 165-174. doi: 10.1016/j.apgeog.2015.03.011

¹²⁵ Frazier, R. (2016, June 30). Is fracking an environmental justice issue? *The Allegheny Front*. Retrieved from <https://www.alleghenyfront.org/is-fracking-an-environmental-justice-issue/>

disproportionately located in lower-income, rural communities.¹²⁶

Apart from disparities circumscribed by race and income, fracking raises other fundamental questions of human rights. A comprehensive analysis that charts the international legal development of water rights as they apply to oil and gas extraction concluded that the right to water for residents living near fracking sites is “likely to be severely curtailed.” Noting that access to clean and safe drinking water is codified by the United Nations General Assembly as a human right essential to the full development of life and all other human rights, the authors argue that, because the fracking industry does not face the true societal cost of water in their production decisions, ownership of this essential-to-life resource is effectively transferred from society to industry, with no protection for this essential human right. In the United States alone, “there is considerable evidence that the human right to water will be seriously undermined by the growth of the unconventional oil and gas industry, and given its spread around the globe this could soon become a global human rights issue.”¹²⁷

Three international human rights bodies have called for prohibitions on fracking. In February 2019, the Committee on Elimination of Discrimination Against Women, which monitors the implementation of the 1979 United Nations treaty that serves as an international bill of rights for women, called on the United Kingdom to ban fracking on the ground that fracking damages communities and imperils the climate in ways that disproportionately harm women and girls living in rural areas.^{128, 129} In October 2018, the United Nations Committee on Economic, Social and Cultural Rights warned Argentina that its plans for large-scale fracking in the Vaca Muerta Shale region would create adverse economic and cultural rights impacts on the indigenous Mapuche people.¹³⁰ In May 2018, the Permanent People’s Tribunal, a Rome-based forum focused on human rights violations, issued an advisory opinion based on a two-year investigation that collected testimonies and reports from scientists and fracking-impacted communities.

In the words of the court,

The evidence clearly demonstrates that the processes of fracking contribute substantially to anthropogenic harm, including climate change and global warming, and involve massive violations of a range of substantive and procedural human rights and the rights of

¹²⁶ Silva, G. S., Warren, J. L., & Deziel, N. C. (2018) Spatial modeling to identify sociodemographic predictors of hydraulic fracturing wastewater injection wells in Ohio census block groups. *Environmental Health Perspectives*, 126(6), 067008. doi: 10.1289/EHP2663

¹²⁷ Palmer, R. C., Short, D., & Auch, W. E. T (2018). The human right to water and unconventional energy. *International Journal of Environmental Research and Public Health*, 15(9), 1858. doi: 10.3390/ijerph15091858

¹²⁸ United Nations Committee on the Elimination of Discrimination Against Women (2018, July 27). List of issues in relation to the eighth periodic report of the United Kingdom of Great Britain and Northern Ireland. https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CEDAW%2fC%2fGBR%2fCO%2f8&Lang=en

¹²⁹ Center for International Environmental Law (2018, March 13). UN body recommends UK consider complete fracking ban to protect human rights [Press statement]. Retrieved from <https://www.ciel.org/news/un-body-recommends-uk-consider-complete-fracking-ban-to-protect-human-rights/>

¹³⁰ Center for International Environmental Law (2018, October 19). CIEL statement on the Committee on Economic, Social, and Cultural Rights (CESCR)’s recommendations for the State of Argentina regarding its Vaca Muerta shale gas development [Press statement]. Retrieved from <https://www.ciel.org/news/ciel-statement-on-the-committee-on-economic-social-and-cultural-rights-cescrs-recommendations-for-the-state-of-argentina-regarding-its-vaca-muerta-shale-gas-development/>

nature. Thus the industry has failed to fulfill its legal and moral obligations.... The dangers of fracking to the rights of people, communities, and nature are inherent in the industry....We will go beyond the call for a moratorium and recommend that fracking should be banned.¹³¹

15) Health professionals are increasingly calling for bans or moratoria on fracking, based on a range of health hazards and as reviews of the data confirm evidence for harm.

In May 2015, the Medical Society of the State of New York passed a resolution recognizing the potential health impacts of natural gas infrastructure and pledging support for a governmental assessment of the health and environmental risks associated with natural gas pipelines. (See footnote 856.) The American Medical Association (AMA) adopted a similar resolution that supports legislation requiring all levels of government to seek a comprehensive Health Impact Assessment regarding the health and environmental risks associated with natural gas pipelines. (See footnote 855.)

In May 2016, Physicians for Social Responsibility called for a ban on fracking. (See footnote 1079.)

In July 2016, the UK health professional organization Medact released an updated assessment of the potential health impacts of shale fracking in England, concluding that the United Kingdom should abandon its policy to encourage shale gas extraction and urged an “indefinite moratorium” on fracking. (See footnote 1077.)

In October 2016, a group of health care professionals in Massachusetts called for an immediate moratorium on major new natural gas infrastructure until the impact of these projects on the health of the communities affected could be adequately determined through a comprehensive Health Impact Assessment. (See footnote 1074.) The group noted that the operation of natural gas facilities increases the risk of human exposures to toxic, cancer-causing, and radioactive pollution due to the presence of naturally co-occurring contaminants, toxic additives to the hydraulic fracturing process, and through the operation of transmission pipelines.

Also in 2016, in a unanimous vote of the society’s 300-member House of Delegates, the Pennsylvania Medical Society called for a moratorium on new shale gas drilling and fracking in Pennsylvania and an initiation of a health registry in communities with pre-existing operations. (See footnotes 1071, 1072).

In 2017, health officials in Los Angeles called for a comprehensive health study in the aftermath of the massive methane leak in Aliso Canyon. (See footnote 1068.)

In March 2019, Doctors for the Environment Australia announced the reinforcement of its position that no new gas extraction of any kind should occur in Australia.

¹³¹ Permanent People’s Tribunal. (2018, May 14-18). Session on human rights, fracking and climate change— advisory opinion. Retrieved from <http://permanentpeopletribunal.org/wp-content/uploads/2019/04/AO-final-12-APRIL-2019.pdf>

Concerned Health Professionals of New York, which provided scientific and medical guidance for the successful effort to ban fracking in New York State, has inspired affiliations of like-minded public health scientists and health care providers that have been advocating for moratoria or bans on fracking in various other regions. These include Concerned Health Professionals of Maryland, Concerned Health Professionals of Ireland, Concerned Health Professionals of Neuquén, Argentina, and Concerned Health Professionals UK.

Conclusion

All together, findings to date from scientific, medical, and journalistic investigations combine to demonstrate that fracking poses significant threats to air, water, human health, public safety, community cohesion, long-term economic vitality, biodiversity, seismic stability, and climate stability.

The rapidly expanding body of scientific evidence compiled and referenced in the present volume is massive, troubling, and cries out for decisive action. Across a wide range of parameters, from air and water pollution to radioactivity to social disruption to greenhouse gas emissions, the data continue to reveal a plethora of recurring problems and harms that cannot be sufficiently averted through regulatory frameworks. There is no evidence that fracking can operate without threatening public health directly and without imperiling climate stability upon which public health depends. The only method of mitigating its grave harm to public health and the climate is a complete and comprehensive ban on fracking.

In the words of investigative journalist Andrew Nikiforuk:

Industry swore that its cracking rock technology was safe and proven, but science now tells a different story. Brute force combined with ignorance ... has authored thousands of earthquakes ... [and] called forth clouds of migrating methane.... The science is complicated but clear: cracking rock with fluids is a chaotic activity and no computer model can predict where those fractures will go. The regulatory record shows that they often go out of zone; extend into water; and rattle existing oil and gas wells, and these rattled wells are leaking more methane.¹³²

In closing, we cite comments by epidemiologist Irena Gorski, co-author of the 2019 review of fracking's health concerns published in the Oxford Research Encyclopedia of Global Public Health. Her words speak for all who have contributed to this Compendium:

What we found pushes back against the narrative we often hear that say we don't know enough about the health impacts yet. We have enough evidence at this point that these health impacts should be of serious concern to policymakers interested in protecting public health....As a fossil fuel, natural gas extraction and use is contributing to climate change, of course. But before conducting this study, I didn't realize the amount of evidence we have that it may be even worse than coal. We included this in our study because climate change has its own contributions to health impacts. These indirect impacts will take longer to appear than the direct health impacts, but they have the potential to be significant.¹³³

¹³² Nikiforuk, A. (2016, October 16). Acceptance speech, USA National Science in Society Journalism Awards reception, San Antonio, Texas. Retrieved from <http://www.ernstversusencana.ca/andrew-nikiforuk-wins-usa-national-science-in-society-award-slick-water-nasws-awards-honor-outstanding-investigative-interpretive-reporting-sciences-their-impact-for-good-and-ill/>

¹³³ Marusic, K. (2019, April 15). After a decade of research, here's what scientists know about the health impacts of fracking. *Environmental Health News*. Retrieved from <https://www.ehn.org/health-impacts-of-fracking-2634432607.html>

Compilation of Studies & Findings

Air pollution

Air pollution associated with fracking is a grave concern with a range of impacts. Researchers have documented more than 200 different air pollutants near drilling and fracking operations. Of these, 61 are classified as hazardous air pollutants with known health risks, and 26 are classified as endocrine disruptors. Areas with substantial drilling and fracking build-out show high levels of ground-level ozone (smog), striking declines in air quality, and, in several cases, increased rates of health problems with known links to air pollution. Air sampling surveys find high concentrations of volatile organic compounds (VOCs), especially carcinogenic benzene and formaldehyde, both at the wellhead and at distances that exceed legal setback distances from wellhead to residence. In some cases, VOC concentrations exceeded federal safety standards by several orders of magnitude. In 2018, researchers in Colorado documented that air pollution increased with proximity to drilling and fracking operations and was sufficiently high to raise cancer risks in some cases. Exposure to emissions from natural gas flares and diesel exhaust from the 4,000-6,000 truck trips per well pad also pose respiratory health risks for those living near drilling operations. The United States leads the world in the number of flare stacks. Air pollutants from flaring operations include VOCs, polycyclic aromatic hydrocarbons, carbon monoxide, toxic heavy metals, formaldehyde, and soot.

Evidence implicates the U.S. shale gas boom in the recent global spike in atmospheric ethane and propane. Drilling and fracking operations in North Dakota's Bakken oil and gas field alone contribute two percent of global ethane emissions and directly impact air quality across North America. Like methane, ethane is both a greenhouse gas and a precursor for ozone formation. The accelerating pace of drilling and fracking activities and the current policy plan to reverse course on proposed regulations to reduce methane emissions are likely to exacerbate the air pollution problems that fracking creates, along with attendant health risks.

- April 1, 2019 – A University of California, Berkeley team undertook a comprehensive review of current peer-reviewed literature on hazardous air pollutants found near oil and gas extraction operations. Hazardous air pollutants are those known or suspected to cause cancer, reproductive harm, birth defects, or other serious health effects. Reviewing 37 studies, the team identified a total of 61 different hazardous air pollutants that have been detected and measured near oil and gas drilling and fracking operations. The sources of these dangerous pollutants include a wide range of equipment, activities, and facilities—from dehydrators and condensate tanks to well drilling, flowback treatment, and oil storage facilities. The team found that the production phase of oil and gas extraction has the potential to emit the highest concentrations and the most complex mixtures of hazardous air pollutants over the longest time. (During the production phase, raw oil or natural gas is flowing from the well and is processed within various ancillary equipment, all of which can emit hazardous pollutants, such as benzene.) The highest and most sustained concentrations of hazardous air pollutants were found in “regions rich in oil,

wet gas, and condensate.” Their results further suggest that “exposure risks can be much higher if production equipment is collocated with condensate storage and wastewater impoundments.” The research team also uncovered an important disconnect between air pollution monitoring studies and those reporting on health impacts. In general, the levels of air pollution detected in the monitoring studies fell short of those known to cause health impacts and yet multiple health-based studies continue to find evidence of a spatial relationship between concentrations of hazardous air pollutants and incidence of health problems among people living near oil and gas operations. These findings suggest that existing air sampling methodologies may be under-reporting emissions or that prevailing health benchmarks are inadequate to identify health problems, especially when exposures include multiple chemicals.¹³⁴

- March 14, 2019 – Approximately 1.7 million people live within one mile of an active oil or gas well in the Los Angeles metropolitan area. A University of California pilot study investigated air pollution around active wells in this densely populated urban area and showed that, even in neighborhoods where residents are exposed to complex mixtures of air pollution from multiple sources, levels of several volatile organic pollutants are higher in communities closer to wellheads and decrease in concentration with distance away from the wellheads. These include the carcinogen benzene and n-hexane. “We were able to identify gradient behavior along the transect downwind of the target oil/natural gas facility that was likely due, in part, to emissions from the facility.”¹³⁵
- February 15, 2019 – In the first modeling study of drilling and fracking-related air pollution to include criteria air pollutants, a University of Texas, Arlington team found that concentrations of pollutants in the Barnett Shale region in north Texas were varied by terrain, with strongly sloping terrain giving the highest maximum concentrations for criteria air pollutants compared to level and moderate terrain. (Regulated by the U.S. Environmental Protection Agency [EPA] via applicable standards, the criteria air pollutants are ozone, particulate matter, lead, carbon monoxide, sulfur oxides, and nitrogen oxides.) The highest benzene and methane concentrations occurred in flat terrain and exceeded health-based standards.¹³⁶
- January 18, 2019 – Flaring is a widely used practice for disposal of waste natural gas during oil drilling, in places that lack infrastructure for its capture and transport. Enabled by fracking, domestic oil production is at an all-time high, and this upswing has outpaced the build-out of pipelines to contain the natural gas that accompanies the oil as it flows to the surface. Using satellite technology, researchers identified 43,887 distinct oil and gas

¹³⁴ Garcia-Gonzales, D. A., Shonkoff, S. B. C., Hays, J., & Jerrett, M. (2019). Hazardous air pollutants associated with upstream oil and natural gas development: A critical synthesis of current peer-reviewed literature. *Annual Review of Public Health, 40*, 283-304. doi: 10.1146/annurev-publhealth-040218-043715

¹³⁵ Garcia-Gonzales, D. A., Shamasunder, B., & Jerrett, M. (2019). Distance decay gradients in hazardous air pollution concentrations around oil and natural gas facilities in the city of Los Angeles: A pilot study. *Environmental Research, 173*, 232-236. doi: 10.1016/j.envres.2019.03.027

¹³⁶ Khalaj, F., & Sattler, M. (2019). Modeling of VOCs and criteria pollutants from multiple natural gas well pads in close proximity, for different terrain conditions: A Barnett Shale case study. *Atmospheric Pollution Research*. Advance online publication. Retrieved from <https://doi.org/10.1016/j.apr.2019.02.007>

flares in the Eagle Ford Shale region of south Texas from 2012 to 2016, with a peak in activity in 2014 and an estimated 4.5 billion cubic meters of total gas volume flared over the study period. Comparing these results with well permit data showed the majority of flares (82 percent) were linked to oil wells, with more than 90 percent associated with horizontally drilled wells. These flares were not equally distributed across the region. Just five of 49 counties in the Eagle Ford Shale area accounted for 71 percent of flaring. “Our results suggest flaring may be a significant environmental exposure in parts of this region.” Air pollutants from flaring operations include VOCs, polycyclic aromatic hydrocarbons, carbon monoxide, toxic heavy metals, formaldehyde, and soot.¹³⁷

- July 27, 2018 – A report written by the United Kingdom’s Air Quality Expert Group found that shale gas operations would increase air pollution (nitrogen dioxides and VOCs) both nationally and locally within the United Kingdom. However, the report languished for three years and was finally released four days after shale gas extraction was officially approved for the Lancashire region of northwest England.^{138, 139}
- July 16, 2018 – A team from the Colorado Department of Public Health and Environment used existing air monitoring data sets from disparate locations to determine if air pollution levels near drilling and fracking operations are sufficient to create health problems in Colorado residents who live more than 500 feet away from a well head. Overall, they found individual VOC levels below those that are known to pose cancer and non-cancer health risks. However, the authors could not evaluate the risk of possible intermittent spikes in emissions during different phases of operation and evaluated only a subset of all VOCs emitted from drilling and fracking operations at these different phases. “Future studies are greatly needed that focus on quantifying these acute, peak exposures to people living near oil and gas operations, with particular emphasis on characterization of the volatile organic compounds identified as posing the greatest potential public health concerns, such as benzene.”¹⁴⁰
- July 13, 2018 – Drilling and fracking operations emit pollutants that form ozone and fine particles. Because air pollution from oil and gas operations originate from a large number of small, diffuse sources, estimating the level and location of emissions is difficult. An EPA team used a national emissions inventory for the year 2011 to characterize oil and gas emissions over space and time and to estimate the future human health burden

¹³⁷ Franklin, M., Chau, K., Cushing, L. J., & Johnston, J. E. (2019). Characterizing flaring from unconventional oil and gas operations in south Texas using satellite observations. *Environmental Science & Technology*, 53(4), 2220-2228. doi: 10.1021/acs.est.8b05355

¹³⁸ UK Air Quality Expert Group. (2018, July 27). *Potential Air Quality Impacts of Shale Gas Extraction in the UK*. Retrieved from https://cedrec.com/cedrec_images/1807251315_AOEG_Shale_Gas_Extraction_Advice_Note_vfinal_for_publishing.pdf

¹³⁹ Carrington, D. (2018, August 2). Buried UK government report finds fracking increases air pollution. *The Guardian*. Retrieved from <https://www.theguardian.com/environment/2018/aug/02/buried-uk-government-report-finds-fracking-increases-air-pollution>

¹⁴⁰ McMullin, T. S., Bamber, A. M., Bon, D., Vigil, D. I., & Van Dyke, M. (2018). Exposure and health risks from volatile organic compounds in communities located near oil and gas exploration and production activities in Colorado. *International Journal of Environmental Research and Public Health*, 15(7). doi: 10.3390/ijerph15071500

attributable to the oil and gas sector. For the year 2025, the authors projected that oil and gas extraction activities will cause 1000 deaths across the United States from exposure to fine particles and 970 deaths from ozone exposure, with the highest impacts in Colorado, Pennsylvania, Texas, and West Virginia.¹⁴¹

- June 13, 2018 – A British team used a new air quality forecasting model to simulate the health impacts of potential emissions from fracking operations in the United Kingdom, should large-scale fracking go forward. The results showed large projected increases in nitrogen oxides and volatile organic compounds across the UK airshed. These increases would contribute to approximately 110 extra premature deaths (with a range of 50-530 deaths) each year across the U.K.¹⁴²
- May 29, 2018 – An Oregon State University team measured polycyclic aromatic hydrocarbon air pollutants near drilling and fracking operations in rural eastern Ohio. A known component of fracking-related air pollution, polycyclic aromatic hydrocarbons are linked to cancer risk, respiratory distress, and poor birth outcomes. Using both air samplers and wristbands to assess personal exposures of residents living near active or proposed well sites, the researchers found elevated air pollution levels near active well sites. Further, the wristbands from participants who lived in homes with well pads on their property registered higher levels of air pollutants than participants without wells. “These findings suggest that living or working near an active natural gas extraction well may increase personal polycyclic aromatic hydrocarbon exposure.”¹⁴³
- May 18, 2018 – A Canadian and U.S. research team monitored methane levels in urban Morgantown, West Virginia during various stages of hydraulic fracturing at a single well pad. They found that emissions at the site were greatest during the flow-back stage, a result that supports previous studies.¹⁴⁴
- March 27, 2018 – A team led by University of Colorado School of Public Health scientists found that air pollution levels along Colorado’s heavily drilled Front Range increased with proximity to drilling and fracking operations and were sufficiently high to raise cancer risks. For people living within 500 feet of a well, lifetime cancer risks were eight times higher than the EPA’s upper threshold. Elevated levels of benzene and alkanes were of particular concern. “These findings indicate that state and federal

¹⁴¹ Fann, N., Baker, K. R., Chan, E. A. W., Eyth, A., Macpherson, A., Miller, E., & Snyder, J. (2018). Assessing human health PM_{2.5} and ozone impacts from U.S. oil and natural gas sector emissions in 2025. *Environmental Science & Technology*, 52, 8095-8103. doi: 10.1021/acs.est.8b02050

¹⁴² Archibald, A. T., Ordóñez, C., Brent, E., & Williams, M. L. (2018). Potential impacts of emissions associated with unconventional hydrocarbon extraction on UK air quality and human health. *Air Quality, Atmosphere & Health*, 11(6), 627-637. doi: 10.1007/s11869-018-0570-8

¹⁴³ Paulick, L. B., Hobbie, K. A., Rohlman, D., Smith, B. W., Scott, R. P., Kincl, L., . . . Anderson, K. A. (2018). Environmental and individual PAH exposures near rural natural gas extraction. *Environmental Pollution*, 241, 397-405. doi: 10.1016/j.envpol.2018.05.010

¹⁴⁴ Williams, P. J., Reeder, M., Pekney, N. J., Risk, D., Osborne, J., & McCawley M. (2018). Atmospheric impacts of a natural gas development within the urban context of Morgantown, West Virginia. *Science of the Total Environment*, 639, 406-416. doi: 10.1016/j.scitotenv.2018.04.422

regulatory policies may not be protective of health for populations residing near oil and gas facilities.”¹⁴⁵

- March 21, 2018 – Evaluating 48 peer-reviewed studies that sampled air near drilling and fracking operations, researchers identified more than 200 different airborne chemicals associated with oil and gas extraction. Ethane, benzene, and n-pentane were the three most frequently detected. Twenty-six of these 200 chemicals are classified as endocrine disruptors—chemicals that can interfere with hormone systems and may affect reproduction, development, and neurological functioning.¹⁴⁶
- March 18, 2018 – There are now more than 22,000 active fracking wells in the rural Eagle Ford Shale region of Texas, which has undergone a 10-fold increase in oil and gas extraction since 2010. A research team from San Francisco State University and University of Southern California used remote sensing data that incorporated infrared observations of combustion sources to estimate exposure of local residents to hazardous air pollutants from associated flaring operations. Their method confirmed extensive flaring in close proximity to homes.¹⁴⁷
- February 26, 2018 – The presence of ethane and propane in the atmosphere is an indication of leaks during fossil fuel extraction and distribution, including fracking and its attendant activities, especially venting and flaring. (Fossil fuel combustion is not a source of ethane or propane.) According to a study led by a University of York team that used data collected from 20 observatories around the world, global atmospheric levels of ethane and propane have been underestimated by more than 50 percent. These results mean that hydrocarbon emissions from fossil fuel extraction activities in general—including methane—may be two to three times higher than previously presumed. Both ethane and methane are ozone precursors and contribute to the creation of smog. The authors noted that enhanced ethane and propane emission results mean higher levels of health-damaging ozone in both rural and urban areas.¹⁴⁸ In related press materials about this research, Ally Lewis, a co-author of the study, said, “Levels of ethane and propane declined in many places in the 1980s and 1990s, but global growth in the demand for natural gas means these trends may be reversing. The effects of higher ozone would be felt in the rural environment where it damages crops and plants, and in cities on human health.” Co-author Lucy Carpenter, said, “We know that a major source of ethane and propane in the atmosphere is from ‘fugitive’ or unintentional escaping emissions during

¹⁴⁵ McKenzie, L. M., Blair, B., Hughes, J., Allshouse, W. B., Blake, N. J., Helmig, D., . . . Adgate, J.L., (2018). Ambient nonmethane hydrocarbon levels along Colorado’s northern Front Range: Acute and chronic health risks. *Environmental Science & Technology*, 52(8), 4514-4525. doi: 10.1021/acs.est.7b05983

¹⁴⁶ Bolden, A. L., Schultz, K., Pelch, K. E., & Kwiatkowski, C. F. (2018). Exploring the endocrine activity of air pollutants associated with unconventional oil and gas extraction. *Environmental Health*, 17(26). doi: 10.1186/s12940-018-0368-z

¹⁴⁷ Cushing L., Johnston J., Franklin M., & Chau, K. (2018). Using satellite observations to estimate exposure to flaring: implications for future studies of the health impacts of unconventional oil and gas operations. *Occupational and Environmental Medicine*, 75 (Suppl 1), A5-A6. doi: 10.1136/oemed-2018-ISEEabstracts.13

¹⁴⁸ Dalsøren, S. B., Myhre, G., Hodnebrog, Ø., Myhre, C. L., Stohl, A., Pisso, I., . . . Wallasch, M. (2018). Discrepancy between simulated and observed ethane and propane levels explained by underestimated fossil emissions. *Nature Geoscience*, 11, 178-184. doi: 10.1038.s41561-018-0073-0

fossil fuel extraction and distribution. If ethane and propane are being released at greater rates than we thought, then we also need to carefully re-evaluate how much of the recent growth of methane in the atmosphere may also have come from oil and natural gas development.”¹⁴⁹

- February 5, 2018 – The Tropospheric Ozone Assessment Report analyzes data from all available ozone monitors around the world. Its 2018 report found that, in the United States, levels of ground-level ozone (smog) dropped steadily between 2000 and 2014 except in rural areas of the Rocky Mountain west where levels remained steady or rose. Oil and gas drilling is likely responsible. Rural areas in the western United States have fewer emission sources and yet they have been experiencing high ozone levels, especially in the winter.¹⁵⁰
- November 2, 2017 – In a review paper that explores how the U.S. fracking boom has contributed to air pollution in impacted communities, Texas A&M atmospheric scientist Gunnar W. Schade identified ozone and benzene as two important chemicals of concern. Documenting trends is challenging because fracking-related air pollutants typically originate in rural places without routine air pollution monitoring. A new air monitor in the Eagle Ford Shale region allowed researchers to use fingerprinting analysis to show that 60 percent of ambient benzene in the air now comes from drilling and fracking operations, including gas flares. Before the shale boom, the majority of benzene in the region came from tailpipe emissions. “In some areas, decades-long progress on ozone air quality has stalled; in others, particularly the Uintah basin in Utah, a new ozone problem has emerged due to the fracking industry’s emissions.” Downwind of the Eagle Ford Shale, San Antonio’s ozone levels are now trending close to 75 ppb, which exceeds the new recommended limit of 70 ppb. “The shale boom has create a new source of large-scale, diffuse hydrocarbon emissions that adversely affect air toxics levels. . . . The continued growth of the fracking industry as well as plans to remove regulations on methane emissions will not alleviate high hydrocarbon emissions and associated regional ozone problems.”¹⁵¹
- April 12, 2017 – Using aircraft, a University of Michigan-led team collected plume samples from 37 flare stacks in the Bakken Shale region of North Dakota to calculate emissions of black carbon (soot), methane, and ethane from natural gas flares. They

¹⁴⁹ University of York. (2018, February 26). Global fossil fuel emissions of hydrocarbons underestimated [press release]. Retrieved from <https://www.york.ac.uk/news-and-events/news/2018/research/global-fossil-fuel-emissions-underestimated/>

¹⁵⁰ Fleming, Z. L., Doherty, R. M., von Schneidmesser, E., Malley, C. S., Cooper, O. R., Pinto, J. P., . . . Feng, Z., (2018). Tropospheric Ozone Assessment Report: present-day ozone distribution and trends relevant to human health. *Elementa: Science of the Anthropocene*, 6(1), 12. doi: 10-1525/elementa.273

¹⁵¹ Schade, G. W. (2017, November 2). How has the US fracking boom affected air pollution in shale areas? *The Conversation*. Retrieved from <https://theconversation.com/how-has-the-us-fracking-boom-affected-air-pollution-in-shale-areas-66190>

determined that flares contribute almost 20 percent of the total emissions of methane and ethane from the Bakken region, as measured by field studies.¹⁵²

- December 29, 2016 – Exposure to air pollutants from well pads decreases quickly with distance. However, according to recent studies, people living kilometers away from actual drilling and fracking operations also show elevated risk of disease known to be linked to air pollution. This review paper investigated the possible role that exposure to diesel exhaust from fracking-related road traffic is playing in creating public health impacts in surrounding communities. “Road traffic generated by hydraulic fracturing operations is one possible source of environmental impact whose significance has, until now, been largely neglected . . . with 4,000-6,000 vehicles visiting the well pad during the operations.” As a starting point for exposure assessment, the author recommended GIS modeling studies with a focus on traffic patterns and exacerbation of pediatric asthma.^{153, 154}
- October 16, 2016 – A review of recent studies documenting harm to both public health and agricultural yields from rising ozone levels identified oil and gas fields as “a major and growing source of ozone in the United States.”¹⁵⁵
- October 16, 2016 – In response to a lawsuit, the EPA acknowledged that its 33-year-old formula for estimating emissions from flaring operations requires revision as it may dramatically underestimate levels of health-damaging air pollutants. Emissions from flare stacks typically include carbon monoxide, nitrogen oxides, benzene, formaldehyde, and xylene, but levels of these smog-forming compounds are seldom measured directly.^{156, 157}
- October 5, 2016 – A review of recent studies documented connections between oil and gas development and worsening ozone levels in western states. Drilling and fracking operations have pushed Pinedale, Wyoming out of compliance with federal ozone standards. Colorado has exceeded federal ozone limits for the past decade, a period that corresponds to a statewide boom in oil and gas drilling.¹⁵⁸

¹⁵² Gvakharia, A., Kort, E. A., Brandt, A., Peischl, J., Ryerson, T. B., Schwarz, J. P., . . . Sweeney, C. (2017). Methane, black carbon, and ethane emissions from natural gas flares in the Bakken Shale, North Dakota.

Environmental Science & Technology, 51(9), 5317-5325. doi: 10.1021/acs.est.6b05183

¹⁵³ McCawley, M. A. (2017). Does increased traffic flow around unconventional resource development activities represent the major respiratory hazard to neighboring communities?: Knowns and unknowns. *Current Opinion in Pulmonary Medicine*, 23(2), 161-166. doi: 10.1097/MCP.0000000000000361

¹⁵⁴ Frazier, R. (2017, June 16). On health effects, blame the trucks, not the fracking? *Allegheny Front*. Retrieved from <https://www.alleghenyfront.org/on-health-effects-blame-the-trucks-not-the-fracking/>

¹⁵⁵ Robbins, J. (2016, October 16). In new ozone alert, a warning of harm to plants and to people. *Yale Environment 360*. Retrieved from http://e360.yale.edu/feature/ground_level_ozone_harming_plants_humans/3044/

¹⁵⁶ United States District Court for the District of Columbia. (2016, October 16). Air Alliance Houston, et al. v. Gina McCarthy, Administrator, United States Environmental Protection Agency. Consent decree. Case 1:16-cv01998. Retrieved from <https://www.documentcloud.org/documents/3127584-Consent-Decree-on-Flares.html>

¹⁵⁷ Hasemyer, D. (2016, October 13). EPA agrees that its emissions estimates from flaring may be flawed. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/12102016/epa-natural-gas-oil-drilling-flaring-emissions-estimates-flawed-fracking>

¹⁵⁸ Boiko-Weyrauch, A. (2016, October 5). Ozone, asthma and the oil and gas connection. *Inside Energy*. Retrieved from <http://insideenergy.org/2016/10/05/ozone-asthma-and-the-oil-and-gas-connection/>

- September 1, 2016 – A NASA-led research team collected whole air samples throughout the Barnett Shale basin in Texas. Chemical analysis showed that they contained benzene, hexane, and toluene at levels 2-50 times greater than the local background and similar to those seen in other intensely drilled shale basins in Colorado and Utah. There is “some evidence to suggest that public concerns for potential chronic health risks are not unwarranted.”¹⁵⁹
- July 23, 2016 – A study conducted at the Boulder Atmospheric Observatory examined sources of summertime ozone formation (smog) in Colorado’s Front Range and found that 17 percent of locally created ozone was created by VOCs from drilling and fracking operations.¹⁶⁰ Colorado has exceeded the federal ozone standard for the past nine years, a period of time that corresponds to a boom in oil and gas drilling in the Wattenberg Gas Field where the number of active wells has nearly doubled.¹⁶¹
- June 13, 2016 – Between 2009 and 2014, ethane emissions in the Northern Hemisphere increased by about 400,000 tons annually, the bulk of it from North American oil and gas activity, according to research by an international team led by the University of Colorado Boulder.¹⁶² After peaking in the 1970s, global ethane emissions began declining, primarily due to stricter air quality emission controls. In 2009, however, that downward trend reversed itself. “About 60 percent of the drop we saw in ethane levels over the past 40 years has already been made up in the past five years.... If this rate continues, we are on track to return to the maximum ethane levels we saw in the 1970s in only about three more years. We rarely see changes in atmospheric gases that quickly or dramatically,” said lead researcher Detlev Helmig.¹⁶³ Samples were collected from locations around the world, but the largest increases in ethane were documented over areas of heavy oil and gas activity in the central and eastern United States. Ethane contributes to the creation of ground-level ozone pollution (smog), a known human health hazard. The authors noted that “... ozone production from these emissions has led to air quality standard exceedances in the Uintah Basin, Utah, and Upper Green River Basin, Wyoming, [oil and natural gas] regions.” Two scientists not involved in the study published an accompanying commentary, concluding, “There is a danger that these non-methane hydrocarbon emission changes can offset emission policies and controls aimed at

¹⁵⁹ Marrero, J. E., Townsend-Small, A., Lyon, D. R., Tsai, T. R., Meinardi, S., & Blake, D. R. (2016). Estimating emissions of toxic hydrocarbons from natural gas production sites in the Barnett Shale Region of Northern Texas. *Environmental Science & Technology*, 50(19), 10756-10764. doi: 10.1021/acs.est.6b02827

¹⁶⁰ McDuffie, E.E., Edwards, P.M., Gilman, J.B., Lerner, B.M., Dubé, W.P., Trainer, M., . . . Brown, S.S. (2016). Influence of oil and gas emissions on summertime ozone in the Colorado Northern Front Range. *Journal of Geophysical Research: Atmospheres*. doi: 10.1002/2016JD025265

¹⁶¹ University of Colorado at Boulder. (2016, August 8). Accounting for ozone: Study first to quantify impact of oil and gas emissions on Denver's ozone problem. *ScienceDaily*. Retrieved from <https://www.sciencedaily.com/releases/2016/08/160808123832.htm>

¹⁶² Helmig, D., Rossabi, S., Hueber, J. Tans, P., Montzka, S. A., Masarie, K., . . . Pozzer, A. (2016). Reversal of global atmospheric ethane and propane trends largely due to US oil and natural gas production. *Nature Geoscience*, 9, 490–495. doi: 10.1038/ngeo2721

¹⁶³ Helmig, D. & Scott, J. (2016, June 13). Global ethane concentrations rising again, says study. *News Center University of Colorado Boulder*. Retrieved from <http://www.colorado.edu/news/releases/2016/06/13/global-ethane-concentrations-rising-again-says-study>

reducing ozone concentrations,” and “[t]hese oil and gas operations are threatening to reverse what had been an important success story: decades of declining air pollution in North America.”¹⁶⁴ (See also the entry dated April 2, 2016 in Threats to the Climate System.)

- June 1, 2016 – Existing data on air pollutants emitted from drilling and fracking operations “support precautionary measures to protect the health of infants and children,” according to a review by a team of researchers (members of which include co-authors of this Compendium). Researchers focused on exposures to ozone, particulate matter, silica dust, benzene, and formaldehyde—all of which are associated with drilling and fracking operations—noting that all are linked to adverse respiratory health effects, particularly in infants and children. Benzene, for example, emitted from gas wells, production tanks, compressors, and pipelines, is a carcinogen also linked to serious respiratory outcomes in infants and children, including pulmonary infections in newborns. As the authors emphasized, this review did not consider other air pollutants commonly associated with drilling and fracking activities, namely hydrogen sulfide, polycyclic aromatic hydrocarbons, and oxides of nitrogen. Although improved exposure assessment, air monitoring, and long-term studies are still lacking, existing evidence was sufficient for the authors to “strongly recommend precautionary measures at this time.”¹⁶⁵
- April 26, 2016 – About two percent of global ethane emissions originate from the Bakken shale oil and gas field, which, according to research led by University of Michigan researchers, emits 250,000 tons of ethane per year.¹⁶⁶ “Two percent might not sound like a lot, but the emissions we observed in this single region are 10 to 100 times larger than reported in inventories. They directly impact air quality across North America. And they’re sufficient to explain much of the global shift in ethane concentrations,” according to Eric Kort, first author of the study.¹⁶⁷ Ethane is a gas that affects climate and decreases air quality. As a greenhouse gas, ethane is the third-largest contributor to human-caused climate change. Ethane contributes to ground-based ozone pollution as it breaks down and reacts with sunlight to create smog. This surface-level ozone is linked to respiratory problems, eye irritation, and crop damage. Global ethane levels were decreasing until 2009, leading the researchers to suspect that the U.S. shale gas boom may be responsible for the global increase in levels since 2010.
- April 5, 2016 – Helicopter-based infrared camera surveys of more than 8,000 oil and gas wells in seven U.S. regions found that well pads emit considerably more methane and VOCs than captured by earlier inventories. Moreover, these emissions were widely and

¹⁶⁴ Hakola, H. & Hellén, H. (2016). The return of ethane. *Nature Geoscience*, 9, 475-476. doi: 10.1038/ngeo2736

¹⁶⁵ Webb, E., Hays, J., Dyrszka, L., Rodriguez, B., Cox, C., Huffling, K., & Bushkin-Bedient, S. (2016). Potential hazards of air pollutant emissions from unconventional oil and natural gas operations on the respiratory health of children and infants. *Reviews on Environmental Health*, 31(2), 225-243. doi: 10.1515/reveh-2014-0070

¹⁶⁶ Kort, E. A., Smith, M. L., Murray, L. T., Gvakharia, A. Brandt, A. R., Peischl, J., . . . Travis, K. (2016). Fugitive emissions from the Bakken shale illustrate role of shale production in global ethane shift. *Geophysical Research Letters*, 43, 4617–4623. doi: 10.1002/2016GL068703

¹⁶⁷ Moore, C. S., & Human K. (2016, April 26). One oil field a key culprit in global ethane gas increase. *Michigan News*. Retrieved from <http://ns.umich.edu/new/multimedia/videos/23735-one-oil-field-a-key-culprit-in-global-ethane-gas-increase>

unpredictably variable from site to site and from well to well. Over 90 percent of total airborne emissions from well pads originated with vents and hatches on aboveground storage tanks.¹⁶⁸ The inability to predict which well sites were “superemitters” (meaning that they leaked into the air more than 200 cubic feet of methane and VOCs per hour) implies that continuous, site-specific monitoring is required to regulate methane leaks from drilling and fracking operations. In a comment about the findings to *InsideClimate News*, Cornell University engineer Anthony Ingraffea, who was not an author of the paper, said, “It makes regulation very difficult. If you have all these possible sites where you can have leaks, you can never have enough inspectors with all the right equipment being in all the right places at all the right times. It’s too complex a system.”¹⁶⁹

- February 19, 2016 – Legally enforced minimal distances between well sites and residences are based on political compromises rather than peer-reviewed science and “may not be sufficient to reduce potential threats to human health in areas where hydraulic fracturing occurs,” according to the findings of an interdisciplinary team including medical professionals and other researchers. The team incorporated geography, current regulations, historical records of blowout incidents and evacuations, thermal modeling, direct air pollution measurement, and vapor cloud modeling within the Marcellus (PA), Barnett (TX), and Niobrara (Northeastern and Northwestern Colorado and parts of Wyoming, Kansas, and Nebraska) Shale regions. The authors focused solely on well sites and excluded pipelines and compressor stations, which limited the data on explosions and evacuations and restricted air pollution results. Even so, the results showed that current natural gas well setbacks in the three areas “cannot be considered sufficient in all cases to protect public health and safety.” People living within setback distances are potentially vulnerable to thermal injury during a well blowout, and they are also susceptible to exposures of benzene and hydrogen sulfide at levels above those known to cause health risks.¹⁷⁰
- August 1, 2015 – “[C]linicians should be aware of the potential impact of fracking when evaluating their patients,” concluded a team writing on behalf of the Occupational and Environmental Health Network of the American College of Chest Physicians. Their article stated that the over 200,000 U.S. workers employed by well-servicing companies “... are exposed to silica, diesel exhaust, and VOCs, and, at some sites, hydrogen sulfide and radon, raising concerns about occupational lung diseases, including silicosis, asthma, and lung cancer.” The authors went on to say, “[i]n addition to occupational exposures, workers and nearby residents are also exposed to air pollutants emitted from various stages of fracking, including nitrogen oxides (NOx), VOCs, ozone, hazardous air pollutants, methane, and fine particulate matter.” Authors pointed to several recent

¹⁶⁸ Lyon, D. R., Alvarez, R. G., Zavala-Araiza, D., Brandt, A. R., Jackson, R. B., & Hamburg, S. P. (2016). Aerial surveys of elevated hydrocarbon emissions from oil and gas production sites. *Environmental Science & Technology*, 50(9). doi: 10.1021/acs.est.6b00705

¹⁶⁹ McKenna, P. (2016, April 8). Researchers find no shortcuts for spotting wells that leak the most methane. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/07042016/big-methane-leaks-superemitters-oil-gas-production-climate-change-edf>

¹⁷⁰ Haley, M., McCawley, M., Epstein, A. C., Arrington, B., & Bjerke, E. F. (2016). Adequacy of current state setbacks for directional high-volume hydraulic fracturing in the Marcellus, Barnett, and Niobrara Shale plays. *Environmental Health Perspectives*. Advance online publication. doi: 10.1289/ehp.1510547

reversals in progress on air quality owed to fracking-related activity, including significant emissions of nitrogen oxides, a precursor of ozone, and spikes in fine particulate matter in fracking-intensive areas of Pennsylvania.¹⁷¹

- July 9, 2015 – The California Council on Science and Technology, in collaboration with the Lawrence Berkeley National Laboratory, released the second and third volumes of an extensive, peer-reviewed assessment of fracking in California. Air quality impacts are the focus of volume 2, chapter 3. The assessment found that current inventory methods underestimate methane and volatile organic chemical emissions from oil and gas operations and that fracking occurs in areas of California—most notably in the San Joaquin Valley and South Coast Air Basins—that already suffer from serious air quality problems. Further, no experimental studies of air emissions from drilling and fracking operations have ever been conducted in California. Although California has well-developed air quality inventory methods, they are “not designed to estimate well stimulation emissions directly, and it is not possible to determine well stimulation emissions from current inventory methods.”¹⁷²
- July 1, 2015 – In accordance with California Senate Bill No. 4, the California Division of Oil, Gas, and Geothermal Resources released a three-volume environmental impact report on oil and gas well stimulation treatments in the state (which, in California, include fracking along with acidizing and other unconventional extraction technologies that break up oil- or gas-containing rock). The Division determined that fracking and related operations can have “significant and unavoidable” impacts on air quality, including increasing ozone and other federally regulated pollutants to levels that violate air quality standards or that would make those violations worse.^{173, 174}
- May 29, 2015 – Each of stage of the drilling and fracking process “... has distinct operations that occur and particular sets of air emissions that may affect the respiratory tract,” wrote West Virginia University researcher Michael McCawley. Some states do have setback requirements, which “... may provide a margin of safety for fire and explosions but [do] not necessarily assure complete dilution or negligible exposure from air emissions.” His paper described the specific air contaminants associated with respiratory effects for each stage of operations. For example, the actual fracking stage potentially emits diesel exhaust, VOCs, particulate matter, ozone precursors, silica, and acid mists. McCawley reviewed the health effects linked to each of the contaminant types. Though many long-term effects may not yet be apparent in shale gas regions, “[a]t

¹⁷¹ Evans, R. B., Prezant, D., & Huang, Y. C. (2015). Hydraulic fracturing (fracking) and the Clean Air Act. *Chest*, 148(2), 298-300. doi: 10.1378/chest.14-2582

¹⁷² Brandt, A., Millstein, D., Jin, L., & Englander, J. (2015, July 9). Air quality impacts from well stimulation. In: California Council on Science and Technology, *An Independent Scientific Assessment of Well Stimulation in California*, volume 2, chapter 3. Retrieved from <http://ccst.us/publications/2015/vol-II-chapter-3.pdf>

¹⁷³ California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (2015, July 1). *Analysis of Oil and Gas Well Stimulation Treatments in California, Volume II*. Retrieved from http://www.conservation.ca.gov/dog/SB4DEIR/Pages/SB4_DEIR_TOC.aspx

¹⁷⁴ Cart. J. (2015, July 1). State issues toughest-in-the-nation fracking rules. *Los Angeles Times*. Retrieved from <http://www.latimes.com/local/lanow/la-me-ln-state-issues-fracking-rules-20150701-story.html>

a minimum, one would expect to see similar rates of respiratory disease to that found near highways with heavy traffic flow.”¹⁷⁵

- April 21, 2015 – In a study funded by the electric power industry, a research team found that fracking had diminished air quality in rural areas downwind of gas sites in two heavily drilled Pennsylvania counties but that concentrations of VOCs were not as high as expected based on results in other states. Methane levels were higher than previous research had found.¹⁷⁶ The extent to which the results can be generalized to the Marcellus basin as a whole, the authors emphasized, remains uncertain.¹⁷⁷
- April 15, 2015 – In a review of the literature, Colorado researchers demonstrated that four common chemical air pollutants from drilling and fracking operations—benzene, toluene, ethylbenzene, and xylene (BTEX)—are endocrine disruptors commonly found in ambient air that have the ability to interfere with human hormones at low exposure levels, including at concentrations well below EPA recommended exposure limits. Among the health conditions linked to ambient level exposures to the BTEX family of air pollutants: sperm abnormalities, reduced fetal growth, cardiovascular disease, respiratory dysfunction, and asthma.¹⁷⁸ “This review suggests that BTEX may...have endocrine disrupting properties at low concentrations, presenting an important line of inquiry for future research. BTEX are used globally in consumer products, and are released from motor vehicles and oil and natural gas operations that are increasingly in close proximity to homes, schools, and other places of human activity.”¹⁷⁹
- March 31, 2015 – University of Wyoming researchers identified a wastewater treatment and recycling facility as an important contributor to high winter ozone levels in Wyoming’s Green River Basin. The facility released a signature mixture of volatile hydrocarbons, including toluene and xylene, which are ozone precursors.¹⁸⁰ This study documented that recycling activities can transfer volatile pollutants from water into air when fracking wastewater is cleaned up for reuse and that water treatment emissions can serve as an important point source of air pollutants.¹⁸¹

¹⁷⁵ McCawley, M. (2015). Air contaminants associated with potential respiratory effects from unconventional resource development activities. *Seminars in Respiratory and Critical Care Medicine* 36(3), 379-387. doi: 10.1055/s-0035-1549453

¹⁷⁶ Phillips, S. (2015, May 19). Study: Lower than expected air pollutants detected at Marcellus drilling sites. *State Impact Pennsylvania*. Retrieved from <https://stateimpact.npr.org/pennsylvania/2015/05/19/study-lower-than-expected-air-pollutants-from-gas-drilling-sites/>

¹⁷⁷ Goetz, J. D., Floerchinger, C., Fortner E. C., Wormhoudt, J., Massoli, P., Knighton, W. B., . . . DeCarlo, P.F. (2015). Atmospheric emission characterization of Marcellus Shale natural gas development sites. *Environmental Science & Technology*, 49, 7012-20. doi: 10.1021/acs.est.5b00452

¹⁷⁸ Bienkowski, B. (2015, April 15). Scientists warn of hormone impacts from benzene, xylene, other common solvents. *Environmental Health News*. Retrieved from <http://www.environmentalhealthnews.org/ehs/news/2015/apr/endocrine-disruption-hormones-benzene-solvents>

¹⁷⁹ Bolden, A. L., Kwiatkowski, C. F., & Colborn, T. (2015). New look at BTEX: Are ambient levels a problem? *Environmental Science & Technology*, 49, 5261-76. doi: 10.1021/es505316f

¹⁸⁰ Field, R. A., Soltis, J., McCarthy, M. C., Murphy, S., & Montague, D. C. (2015). Influence of oil and gas field operations on spatial and temporal distributions of atmospheric non-methane hydrocarbons and their effect on ozone formation in winter. *Atmospheric Chemistry and Physics*, 15, 3527-3542. doi: 10.5194/acp-15-3527-2015

¹⁸¹ Peterka, A. (2015, April 2). Study links Wyo. winter ozone to drillers’ wastewater plant. *Greenwire*. Retrieved from <http://www.eenews.net/stories/1060016205>

- March 26, 2015 – Fracking can pollute air hundreds of miles downwind from the well pad, according to the results of a study from University of Maryland. Researchers took hourly measurements of ethane in the air over Maryland and the greater Washington, DC area, where fracking does not occur, and compared them to ethane data from areas of West Virginia, Pennsylvania, and Ohio where it does. They found month-to-month correlations, indicating that the ethane pollution in the air over Maryland appears to be coming from drilling and fracking operations in these other states. Ethane, a minor component of natural gas, rose 30 percent in the air over the Baltimore and Washington DC area since 2010, even as other air pollutants declined in concentration. By contrast, no increase in ethane levels were found in Atlanta, Georgia, which is not downwind of fracking operations.^{182, 183} Given this evidence for widespread ethane leakage, the paper’s lead author asked how much methane and other, more reactive emissions might be escaping from wells, noting that “a substantial amount of hydrocarbons” are emitted as a result of flowback procedures following the fracturing process.¹⁸⁴
- February 27, 2015 – A team of researchers from University of Texas, funded in part by the gas industry, examined ozone (smog) production resulting from natural gas extraction and use in Texas. Previous research by this team had found that the increased use of natural gas for generating electricity, as a replacement for coal, contributed to overall reductions in daily maximum ozone concentrations in northeastern Texas. By contrast, the results of this study found an increase in ozone in the Eagle Ford Shale area of south Texas. The Eagle Ford Shale is upwind from both Austin and San Antonio.¹⁸⁵ A potent greenhouse gas, methane is also a precursor for ground-level ozone and hence a contributor to smog formation.
- January 16, 2015 – Researchers from a number of universities, including the University of New Hampshire and Appalachian State University, used a source apportionment model to estimate the contribution of natural gas extraction activities to overall air pollution, including ozone, in heavily drilled southwest Pennsylvania. This regional air sampling effort demonstrated significant changes in atmospheric chemistry from drilling and fracking operations there. The researchers found that drilling and fracking operations may affect compliance with ozone standards.¹⁸⁶

¹⁸² Vinciguerra, T. Yao, S., Dadzie, J., Chittmans, A., Deskins, T., Ehrman, S., & Dickerson, R. R. (2015). Regional air quality impacts of hydraulic fracturing and shale natural gas activities: evidence from ambient VOC observations. *Atmospheric Environment*, 110, 144-50. doi: 10.1016/j.atmosenv.2015.03.056

¹⁸³ Valentine, K. (2015, April 30). Fracking wells could pollute the air hundreds of miles away. *ClimateProgress*. Retrieved from <http://thinkprogress.org/climate/2015/04/30/3653252/fracking-air-pollution-downwind/>

¹⁸⁴ Levine, F., & Tune, L. (2015, April 30). Emissions from natural gas wells may travel far downwind. *University of Maryland: UMD Right Now*. Retrieved from <http://www.umdrightnow.umd.edu/news/emissions-natural-gas-wells-may-travel-far-downwind>

¹⁸⁵ Pacsi, A. P., Kimura, Y., McGaughey, G., McDonald-Buller, E. C., & Allen, D. T. (2015). Regional ozone impacts of increased natural gas use in the Texas power sector and development in the Eagle Ford Shale. *Environmental Science & Technology*, 49, 3966-73. doi: 10.1021/es5055012

¹⁸⁶ Swarthout, R. F., Russo, R.S., Zhou, Y., Miller, B.M., Mitchell, B., Horsman, E., . . . Sive, B.C. (2015). Impact of Marcellus Shale natural gas development in southwest Pennsylvania on volatile organic compound emissions and regional air quality. *Environmental Science & Technology*, 49, 3175-84. doi: 10.1021/es504315f

- November 20, 2014 – The Texas Commission on Environmental Quality confirmed high levels of benzene emissions and other VOCs around an oil and gas facility in the Eagle Ford Shale. Symptoms reported by local residents were consistent with those known to be associated with exposure to such chemicals.¹⁸⁷
- November 14, 2014 – A University of Colorado at Boulder research team found that residential areas in intensely drilled northeastern Colorado have high levels of fracking-related air pollutants, including benzene. In some cases, concentrations exceed those found in large urban centers and are within the range of exposures known to be linked to chronic health effects. According to the study, “High ozone levels are a significant health concern, as are potential health impacts from chronic exposure to primary emissions of non-methane hydrocarbons (NMHC) for residents living near wells.” The study also noted that tighter regulations have not resulted in lower air pollution levels, “Even though the volume of emissions per well may be decreasing, the rapid and continuing increase in the number of wells may potentially negate any real improvements to the air quality situation.”¹⁸⁸
- October 30, 2014 – A research team assembled by University at Albany Institute for Health and the Environment identified eight highly toxic chemicals in air samples collected near fracking and associated infrastructure sites across five states: Arkansas, Colorado, Pennsylvania, Ohio, and Wyoming. The most common airborne chemicals detected included two proven human carcinogens (benzene and formaldehyde) and two potent neurotoxicants (hexane and hydrogen sulfide). In 29 out of 76 samples, concentrations far exceeded federal health and safety standards, sometimes by several orders of magnitude. Further, high levels of pollutants were detected at distances exceeding legal setback distances from wellheads to homes. Highly elevated levels of formaldehyde, for example, were found up to a half-mile from a wellhead. In Arkansas, seven air samples contained formaldehyde at levels up to 60 times the level known to raise the risk for cancer.¹⁸⁹ “This is a significant public health risk,” said lead author David O. Carpenter, MD, in an accompanying interview: “Cancer has a long latency, so you’re not seeing an elevation in cancer in these communities. But five, 10, 15 years from now, elevation in cancer is almost certain to happen.”¹⁹⁰
- October 21, 2014 – Responding to health concerns by local residents, a research team from University of Cincinnati and Oregon State University found high levels of air

¹⁸⁷ Davis, B. (2014, November 20). TCEQ memo proves toxic chemicals are being released in the Eagle Ford Shale. *KENS 5 Eyewitness News*. Retrieved from <http://www.kens5.com/story/news/investigations/i-team/2014/11/20/benzene-oil-toxic-fumes/70020596/>

¹⁸⁸ Thompson, C. R., Hueber J., & Helmig D. (2014). Influence of oil and gas emissions on ambient atmospheric non-methane hydrocarbons in residential areas of Northeastern Colorado. *Elementa: Science of the Anthropocene*, 2. doi: 10.12952/journal.elementa.000035

¹⁸⁹ Macey, G. P., Breech, R., Chernaik, M., Cox, C., Larson, D., Thomas, D., & Carpenter, D. O. (2014). Air concentrations of volatile compounds near oil and gas production: a community-based exploratory study. *Environmental Health*, 13(82). doi: 10.1186/1476-069X-13-82

¹⁹⁰ Neuhauser, A. (2014, October 30). Toxic chemicals, carcinogens skyrocket near fracking sites. *U.S. News and World Report*. Retrieved from <http://www.usnews.com/news/articles/2014/10/30/toxic-chemicals-and-carcinogens-skyrocket-near-fracking-sites-study-says>

pollution in heavily drilled areas of rural Carroll County, Ohio. Air monitors showed 32 different hydrocarbon-based air pollutants, including the carcinogens naphthalene and benzo[a]pyrene.¹⁹¹ The researchers plan additional monitoring and analysis.

- October 21, 2014 – Using a mobile laboratory designed by NOAA, a research team from the University of Colorado at Boulder, the NOAA Earth System Research Laboratory, and the Karlsruhe Institute of Technology looked at air pollution from drilling and fracking operations in Utah’s Uintah Basin. The researchers found that drilling and fracking emit prodigious amounts of volatile organic air pollutants, including benzene, toluene, and methane, all of which are precursors for ground-level ozone (smog). Multiple pieces of equipment on and off the well pad, including condensate tanks, compressors, dehydrators, and pumps, served as the sources of these emissions. This research shows that drilling and fracking activities are the cause of the extraordinarily high levels of winter smog in the remote Uintah basin—which regularly exceed air quality standards and rival that of downtown Los Angeles.¹⁹²
- October 2, 2014 – A joint investigation by *InsideClimate News* and the Center for Public Integrity found that toxic air emissions wafting from fracking waste pits in Texas are unmonitored and unregulated due to federal exemptions that classify oil and gas field waste as non-hazardous.¹⁹³
- October 1, 2014 – In a major paper published in *Nature*, an international team led by the National Oceanic and Atmospheric Administration demonstrated that exceptionally high emissions of VOCs explain how drilling and fracking operations in Utah’s Uintah Basin create extreme wintertime ozone events even in the absence of abundant ultraviolet light and water vapor, which are typically required to produce ground-level ozone (smog). Current air pollution trends in the United States are toward lower nitrogen oxides from urban sources and power generation, but increasing methane and VOCs from oil and gas extraction activities threaten to reverse decades of progress in attaining cleaner air. According to the study, the consequences for public health are “as yet unrecognized.”¹⁹⁴
- September 6, 2014 – As part of a comparative lifecycle analysis, a British team from the University of Manchester found that shale gas extracted via fracking in the United Kingdom would generate more smog than any other energy source evaluated (coal,

¹⁹¹ Environmental Health Sciences Center, Oregon State University. (2014). List of 62 PAH analyzed in Carroll County, OH. Retrieved from <http://ehsc.oregonstate.edu/air/62PAH>

¹⁹² Warneke, C., Geiger, F., Edwards, P. M., Dube, W., Pétron, G., Kofler, J., . . . Roberts, J. M. (2014). Volatile organic compound emissions from the oil and natural gas industry in the Uintah Basin, Utah: oil and gas well pad emissions compared to ambient air composition. *Atmospheric Chemistry and Physics*, 14, 10977-10988. doi: 10.5194/acp-14-10977-2014

¹⁹³ Hasemyer, D., & Hirji, Z. (2014, October 2). Open piles offer cheap disposal for fracking sludge, but health worries mount. *InsideClimate News* and the Center for Public Integrity. Retrieved from <http://www.publicintegrity.org/2014/10/02/15826/open-pits-offer-cheap-disposal-fracking-sludge-health-worries-mount>

¹⁹⁴ Edwards, P. M., Brown, S. S., Roberts, J. M., Ahmadov, R., Banta, R. M., deGouw, J.A., . . . Zamora, R. (2014). High winter ozone pollution from carbonyl photolysis in an oil and gas basin. *Nature*, 514(7522), 351-354. doi: 10.1038/nature13767

conventional and liquefied gas, nuclear, wind, and solar). Leakage of vaporous organic compounds during the necessary removal of hydrogen sulfide gas, along with the venting of gas both during drilling and during the process of making the well ready for production, were major contributors. “In comparison to other technologies, shale gas has high [photochemical smog]. In the central case, it is worse than solar PV, offshore wind and nuclear power by factors of 3, 26 and 45, respectively. Even in the best case, wind and nuclear power are still preferable (by factors of 3.3 and 5.6 respectively).”¹⁹⁵

- September 2014 – ShaleTest Environmental Testing conducted ambient air quality tests and gas-finder infrared video for several children’s play areas in North Texas that are located in close proximity to shale gas development. The results showed a large number of compounds detected above the Method Reporting Limit (the minimum quantity of the compound that can be confidently determined by the laboratory). Air sampling found three known/suspected carcinogens, and a number of other compounds associated with significant health effects. Benzene results from Denton, Dish, and Fort Worth are particularly alarming since they exceeded the long-term ambient air limits set by the Texas Commission on Environmental Quality, and benzene is a known carcinogen. “Benzene was found at all but one sampling location This is particularly noteworthy as benzene is a known carcinogen (based on evidence from studies in both people and lab animals), AND because it exceeds [levels above which effects have the potential to occur.]”¹⁹⁶
- August 24, 2014 – A *Salt Lake City Tribune* investigation found that evaporation from 14 fracking waste pits in western Colorado has added tons of toxic chemicals to Utah’s air in the last six years. Further, the company responsible operated with no permit, underreported its emissions and provided faulty data to regulators.¹⁹⁷
- August 2014 – A four-part investigation by the *San Antonio Express-News* found that natural gas flaring in the Eagle Ford Shale in 2012 contributed more than 15,000 tons of VOCs and other contaminants to the air of southern Texas—which is roughly equivalent to the pollution that would be released annually by six oil refineries. No state or federal agency is tracking the emissions from individual flares.¹⁹⁸
- June 26, 2014 – Public health professionals at the Southwest Pennsylvania Environmental Health Project reported significant recurrent spikes in the amount of particulate matter in the air inside of residential homes located near drilling and fracking operations. Captured by indoor air monitors, the spikes tend to occur at night when stable atmospheric conditions hold particulate matter low to the ground. Director Raina Ripple emphasized

¹⁹⁵ Stamford, L., & Azapagic, A. (2014). Life cycle environmental impacts of UK shale gas. *Applied Energy*, 134, 506-518. doi: 10.1016/j.apenergy.2014.08.063

¹⁹⁶ ShaleTest Environmental Testing. (2014, September). Project playground: Cleaner air for active kids. Retrieved from <http://www.shaletest.org/wp-content/uploads/2014/09/ProjectPlaygroundPatagoniaReport-5-1.pdf>

¹⁹⁷ Maffly, B. (2014, August 24). Utah grapples with toxic water from oil and gas industry. *Salt Lake City Tribune*. Retrieved from <http://www.sltrib.com/sltrib/news/58298470-78/danish-flats-ponds-company.html>

¹⁹⁸ Hiller, J., & Tedesco, J. (2014, August). Up in flames: Flare in Eagle Ford Shale wasting natural gas. *San Antonio Express News*. Retrieved from: <http://www.expressnews.com/business/eagleford/item/Up-in-Flames-Day-1-Flares-in-Eagle-Ford-Shale-32626.php>

that spikes in airborne particulate matter are likely to cause acute health impacts in community members. She added, “What the long-term effects are going to be, we’re not certain.”¹⁹⁹

- May 8, 2014 – Researchers at NOAA found high levels of methane leaks as well as benzene and smog-forming VOCs in the air over oil and gas drilling areas in Colorado. Researchers found methane emissions three times higher than previously estimated and benzene and VOC levels seven times higher than estimated by government agencies. The *Denver Post* noted that Colorado’s Front Range has failed to meet federal ozone air quality standards for years.²⁰⁰
- April 26, 2014 – A Texas jury awarded a family \$2.8 million because, according to the lawsuit, a fracking company operating on property nearby had “created a ‘private nuisance’ by producing harmful air pollution and exposing [members of the affected family] to harmful emissions of volatile organic compounds, toxic air pollutants and diesel exhaust.” The family’s 11-year-old daughter became ill, and family members suffered a range of symptoms, including “nosebleeds, vision problems, nausea, rashes, blood pressure issues.”²⁰¹ Because drilling did not occur on their property, the family had initially been unaware that their symptoms were caused by activities around them.
- April 16, 2014 – Reviewing the peer-review literature to date of “direct pertinence to the environmental public health and environmental exposure pathways,” a U.S. team of researchers concluded: “[a] number of studies suggest that shale gas development contributes to levels of ambient air concentrations known to be associated with increased risk of morbidity and mortality.”²⁰²
- April 11, 2014 – A modeling study commissioned by the state of Texas made striking projections about worsening air quality in the Eagle Ford Shale. Findings included the possibility of a 281 percent increase in emissions of VOCs. Some VOCs cause respiratory and neurological problems; others, like benzene, are also carcinogens. Another finding was that nitrogen oxides—which react with VOCs in sunlight to create ground-level ozone, the main component of smog—increased 69 percent during the peak ozone season.²⁰³
- March 29, 2014 – Scientists warn that current methods of collecting and analyzing emissions data do not accurately assess health risks. Researchers with the Southwest

¹⁹⁹ McMahon, J. (2014, June 26). Air pollution spikes in homes near fracking wells. *Forbes*. Retrieved from <http://www.forbes.com/sites/jeffmcmahon/2014/06/26/air-pollution-spikes-in-homes-near-fracking-wells/>

²⁰⁰ Finley, B. (2014, May 8). Scientists flying over Colorado oil boom find worse air pollution. *The Denver Post*. Retrieved from http://www.denverpost.com/environment/ci_25719742/scientists-flying-over-colorado-oil-boom-find-worse

²⁰¹ Morris, J. (2014, April 26). Texas family plagued with ailments gets \$3M in 1st-of-its-kind fracking judgment. *CNN*. Retrieved from <http://www.cnn.com/2014/04/25/justice/texas-family-wins-fracking-lawsuit/>

²⁰² Shonkoff, S. B., Hays, J., & Finkel, M. L. (2014). Environmental public health dimensions of shale and tight gas development. *Environmental Health Perspectives*, 122, 787–795. doi: 10.1289/ehp.1307866

²⁰³ Morris, J., Song, L., & Hasemayer, D. (2014, April 11). Report: Air quality to worsen in Eagle Ford shale. *The Texas Tribune*. Retrieved from <http://www.texastribune.org/2014/04/11/report-air-quality-worsen-eagle-ford-shale/>

Pennsylvania Environmental Health Project showed that methods do not adequately measure the intensity, frequency, or durations of community exposure to the toxic chemicals routinely released from drilling and fracking activities. They found that exposures may be underestimated by an order of magnitude, mixtures of chemicals are not taken into account, and local weather conditions and vulnerable populations are ignored.²⁰⁴

- March 27, 2014 – University of Texas research pointed to “potentially false assurances” in response to community health concerns in shale gas development areas. Dramatic shortcomings in air pollution monitoring to date include no accounting for cumulative toxic emissions or children’s exposures during critical developmental stages, and the potential interactive effects of mixtures of chemicals. Chemical mixtures of concern include benzene, toluene, ethylbenzene, and xylenes.^{205, 206}
- March 13, 2014 – VOCs emitted in Utah’s heavily drilled Uintah Basin led to 39 winter days exceeding the EPA’s eight-hour National Ambient Air Quality Standards level for ozone pollutants the previous winter. “Levels above this threshold are considered to be harmful to human health, and high levels of ozone are known to cause respiratory distress and be responsible for an estimated 5,000 premature deaths in the U.S. per year,” according to researchers at the University of Colorado. Their observations “reveal a strong causal link between oil and gas emissions, accumulation of air toxics, and significant production of ozone in the atmospheric surface layer.”²⁰⁷ Researchers estimated that total annual VOC emissions at the fracking sites are equivalent to those of about 100 million cars.²⁰⁸
- March 3, 2014 – In a report summarizing “the current understanding of local and regional air quality impacts of natural gas extraction, production, and use,” a group of researchers from NOAA, Stanford, Duke, and other institutions described what is known and unknown with regard to air emissions including greenhouse gases, ozone precursors (VOCs and nitrogen oxides), air toxics, and particulates. Crystalline silica was also discussed, including as a concern for people living near well pads and production staging areas.²⁰⁹

²⁰⁴ Brown, D., Weinberger, B., Lewis, C., & Bonaparte, H. (2014). Understanding exposure from natural gas drilling puts current air standards to the test. *Reviews on Environmental Health*, 29(4), 277-92. doi: 10.1515/reveh-2014-0002

²⁰⁵ Rawlins, R. (2013). Planning for fracking on the Barnett shale: Urban air pollution, improving health based regulation, and the role of local governments. *Virginia Environmental Law Journal*, 31, 226-306. Retrieved from http://www.velj.org/uploads/1/2/7/0/12706894/2._rawlins_-_barnett_shale.pdf

²⁰⁶ University of Texas at Austin. (2014, March 27). Air pollution and hydraulic fracturing: Better monitoring, planning and tracking of health effects needed in Texas. Retrieved from <http://www.utexas.edu/news/2014/03/27/hydraulic-fracturing-texas/>

²⁰⁷ Helmig, D., Thompson, C. R., Evans, J., Boylan, P., Hueber, J., & Park, J. (2014). Highly elevated atmospheric levels of volatile organic compounds in the Uintah Basin, Utah [Abstract]. *Environmental Science & Technology*, 48(9), 4707-4715. doi: 10.1021/es405046r

²⁰⁸ Lockwood, D. (2014, March 25). Harmful air pollutants build up near oil and gas fields. *Chemical & Engineering News*. Retrieved from <http://cen.acs.org/articles/92/web/2014/03/Harmful-Air-Pollutants-Build-Near.html>

²⁰⁹ Moore, C. W., Zielinska, B., Petron, G., & Jackson, R. B. (2014). Air impacts of increased natural gas acquisition, processing, and use: A critical review. *Environmental Science & Technology*. doi: 10.1021/es4053472

- February 18, 2014 – An eight-month investigation by the *Weather Channel*, the *Center for Public Integrity*, and *InsideClimate News* into fracking in the Eagle Ford Shale in Texas revealed that fracking is “releasing a toxic soup of chemicals into the air.” They noted very poor monitoring by the state of Texas and reported on hundreds of air complaints filed relating to air pollution associated with fracking.²¹⁰
- December 18, 2013 – An interdisciplinary group of researchers in Texas collected air samples in residential areas near shale gas extraction and production, going beyond previous Barnett Shale studies by including emissions from the whole range of production equipment. They found that most areas had “atmospheric methane concentrations considerably higher than reported urban background concentrations,” and many toxic chemicals were “strongly associated” with compressor stations.²¹¹
- December 10, 2013 – Health department testing at fracking sites in West Virginia revealed dangerous levels of benzene in the air. Wheeling-Ohio County Health Department Administrator Howard Gamble stated, “The levels of benzene really pop out. The amounts they were seeing were at levels of concern. The concerns of the public are validated.”²¹²
- October 11, 2013 – Air sampling before, during, and after drilling and fracking of a new natural gas well pad in rural western Colorado documented the presence of the toxic solvent methylene chloride, along with several polycyclic aromatic hydrocarbons at “concentrations greater than those at which prenatally exposed children in urban studies had lower developmental and IQ scores.”²¹³
- September 19, 2013 – In Texas, air monitoring data in the Eagle Ford Shale area revealed potentially dangerous exposures of nearby residents to hazardous air pollutants, including cancer-causing benzene and the neurological toxicant, hydrogen sulfide.²¹⁴
- September 13, 2013 – A study by researchers at the University of California at Irvine found dangerous levels of VOCs in Canada’s “Industrial Heartland” where there are more than 40 oil, gas, and chemical facilities. The researchers noted high levels of

²¹⁰ Morris, J., Song, L., & Hasemayer, D. (2014, February 18). Fracking the Eagle Ford Shale. *The Weather Channel*. Retrieved from <http://stories.weather.com/fracking>

²¹¹ Rich, A., Grover, J. P., & Sattler, M. L. (2014). An exploratory study of air emissions associated with shale gas development and production in the Barnett Shale. *Journal of the Air & Waste Management Association*, 64(1), 61-72. doi: 10.1080/10962247.2013.832713

²¹² Junkins, C. (2013, December 10). Health dept. concerned about benzene emissions near local gas drilling sites. *The Intelligencer, Wheeling News-Register*. Retrieved from <http://www.theintelligencer.net/page/content.detail/id/593209/Health-Dept--Concerned-About-Benzene-Emissions-Near-Local-Gas-Drilling-Sites.html?nav=510>

²¹³ Colborn, T., Schultz, K., Herrick, L., & Kwiatkowski, C. (2014). An exploratory study of air quality near natural gas operations. *Human and Ecological Risk Assessment: An International Journal*, 20(1), 86-105. doi: 10.1080/10807039.2012.749447

²¹⁴ Wilson, S., Sumi, L., & Subra, W. (2013, September 19). Reckless endangerment while fracking the Eagle Ford shale. *Earthworks*. Retrieved from http://www.earthworksaction.org/library/detail/reckless_endangerment_in_the_eagle_ford_shale#.UkGi-4Y3uSo.

hematopoietic cancers (leukemia and non-Hodgkin's lymphoma) in men who live closer to the facilities.²¹⁵

- April 29, 2013 – Using American Lung Association data, researchers with the Environmental Defense Fund determined that air quality in rural areas with fracking was worse than air quality in urban areas.²¹⁶
- March 2013 – A review of regional air quality damages in parts of Pennsylvania in 2012 from Marcellus Shale development found that air pollution was a significant concern, with regional damages ranging from \$7.2-\$32 million in 2011.²¹⁷
- February 27, 2013 – In a letter from Concerned Health Professionals of New York to Governor Andrew Cuomo, a coalition of hundreds of health organizations, scientists, medical experts, elected officials, and environmental organizations noted serious health concerns about the prospects of fracking in New York State, making specific note of air pollution.²¹⁸ Signatory organizations included the American Academy of Pediatrics of New York, the American Lung Association of New York, and Physicians for Social Responsibility. The New York State Medical Society, representing 30,000 medical professionals, has issued similar statements.²¹⁹
- January 2, 2013 – A NOAA study identified emissions from oil and gas fields in Utah as a significant source of pollutants that contribute to ozone problems.²²⁰ Exposure to elevated levels of ground-level ozone is known to worsen asthma and has been linked to respiratory illnesses and increased risk of stroke and heart attack.²²¹
- December 3, 2012 – A study linked a single well pad in Colorado to more than 50 airborne chemicals, 44 of which have known health effects.²²²

²¹⁵ Simpson, I. J., Marrero, J. E., Batterman, S. & Blake, D. R. (2013) Air quality in the Industrial Heartland of Alberta, Canada and potential impacts on human health. *Atmospheric Environment*, 81, 702-709. doi: 10.1016/j.atmosenv.2013.09.017

²¹⁶ Grossman, D. (2013, April 29). Clean air report card: CO, WY Counties get F's due to oil and gas pollution. *Environmental Defense Fund*. Retrieved from <http://blogs.edf.org/energyexchange/2013/04/29/clean-air-report-card-co-wy-counties-get-fs-due-to-oil-and-gas-pollution/#sthash.FXRv6Nxi.dpuf>

²¹⁷ Litovitz, A., Curtright, A., Abramzon, S., Burger, N., & Samaras, C. (2013). Estimation of regional air-quality damages from Marcellus Shale natural gas extraction in Pennsylvania. *Environmental Research Letters*, 8(1). doi: 10.1088/1748-9326/8/1/014017

²¹⁸ Concerned Health Professionals of NY. (2013, February 27). Letter to Governor Cuomo. Retrieved from <http://concernedhealthny.org/letters-to-governor-cuomo/>

²¹⁹ Campbell, J. (2013, April 17). Fracking roundup: Gas prices up; Medical society wants moratorium. *Politics on the Hudson*. Retrieved from <http://polhudson.lohudblogs.com/2013/04/17/fracking-roundup-gas-prices-up-medical-society-wants-moratorium/>

²²⁰ Tollefson, J. (2013). Methane leaks erode green credentials of natural gas. *Nature*, 493(7430), 12-12. doi: 10.1038/493012a

²²¹ American Lung Association. (2013). American Lung Association state of the air 2013 - Ozone pollution. Retrieved from <http://www.stateoftheair.org/2013/health-risks/health-risks-ozone.html>

²²² Colborn, T., Schultz, K., Herrick, L., & Kwiatkowski, C. (2014). An exploratory study of air quality near natural gas operations. *Human and Ecological Risk Assessment: An International Journal*, 20(1), 86-105. doi: 10.1080/10807039.2012.749447

- July 18, 2012 – A study by the Houston Advanced Research Center modeled ozone formation from a natural gas processing facility using accepted emissions estimates and showed that regular operations could significantly raise levels of ground-level ozone (smog) in the Barnett Shale in Texas and that gas flaring further contributed to ozone levels.²²³
- March 19, 2012 – A Colorado School of Public Health study found air pollutants near fracking sites linked to neurological and respiratory problems and cancer.^{224, 225} The study, based on three years of monitoring at Colorado sites, found a number of “potentially toxic petroleum hydrocarbons in the air near gas wells including benzene, ethylbenzene, toluene, and xylene.” Lisa McKenzie, PhD, MPH, lead author of the study and research associate at the Colorado School of Public Health, said, “Our data show that it is important to include air pollution in the national dialogue on natural gas development that has focused largely on water exposures to hydraulic fracturing.”²²⁶
- December 12, 2011 – Cancer specialists, cancer advocacy organizations, and health organizations summarized the cancer risks posed by all stages of the shale gas extraction process in a letter to New York Governor Andrew Cuomo.²²⁷
- October 5, 2011 – More than 250 medical experts and health organizations reviewed the multiple health risks from fracking in a letter sent to New York Governor Andrew Cuomo.²²⁸
- April 21, 2011 – *Environment & Energy (E&E)* reported that ozone levels exceeding federal health standards in Utah’s Uintah Basin, as well as wintertime ozone problems in other parts of the Intermountain West, stem from oil and gas extraction. Levels reached nearly twice the federal standard, potentially dangerous even for healthy adults to breathe. Keith Guille, spokesman for the Wyoming Department of Environmental Quality, said, “We recognize that definitely the main contributor to the emissions that are out there is the oil and gas industry....”²²⁹

²²³ Olaguer, E. P. (2012). The potential near-source ozone impacts of upstream oil and gas industry emissions. *Journal of the Air & Waste Management Association*, 62(8), 966-977. doi: 10.1080/10962247.2012.688923

²²⁴ Kelly, D. (2012, March 19). Study shows air emissions near fracking sites may pose health risk. *University of Colorado Denver*. Retrieved from <http://www.ucdenver.edu/about/newsroom/newsreleases/Pages/health-impacts-of-fracking-emissions.aspx>

²²⁵ McKenzie, L. M., Witter, R. Z., Newman, L. S., & Adgate, J. L. (2012). Human health risk assessment of air emissions from development of unconventional natural gas resources. *Science of the Total Environment*, 424, 79-87. doi: 10.1016/j.scitotenv.2012.02.018

²²⁶ Banerjee, N. (2012, March 20). Study: 'Fracking' may increase air pollution health risks. *Los Angeles Times*. Retrieved from <http://articles.latimes.com/2012/mar/20/local/la-me-gs-fracking-increases-air-pollution-health-risks-to-residents-20120320>

²²⁷ Physicians, Scientists & Engineers for Healthy Energy. (2011, December 12). Appeal to Gov. Cuomo to consider cancer risks re: High volume hydraulic fracturing for natural gas [Letter to A. Cuomo].

²²⁸ Physicians, Scientists & Engineers for Healthy Energy. (2011, October 5). Letter to Governor Cuomo [Letter to A. Cuomo].

²²⁹ Streater, S. (2011, April 21). Air pollution: Winter ozone problem continues to mystify regulators, industry. *E&E Publishing, LLC*. Retrieved from <http://www.eenews.net/stories/1059948108>

- March 8, 2011 – The Associated Press reported that gas drilling in some remote areas of Wyoming caused a decline of air quality from pristine mountain air to levels of smog and pollution worse than Los Angeles on its worst days, resulting in residents complaining of watery eyes, shortness of breath, and bloody noses.²³⁰
- November 18, 2010 – A study of air quality in the Haynesville Shale region of east Texas, northern Louisiana, and southwestern Arkansas found that shale oil and gas extraction activities contributed significantly to ground-level ozone (smog) via high emissions of ozone precursors, including VOCs and nitrogen oxides.²³¹ Ozone is a key risk factor for asthma and other respiratory and cardiovascular illnesses.^{232, 233, 234, 235}
- September 2010 – A health assessment by the Colorado School of Public Health for gas development in Garfield County, Colorado determined that air pollution will likely “be high enough to cause short-term and long-term disease, especially for residents living near gas wells. Health effects may include respiratory disease, neurological problems, birth defects and cancer.”^{236, 237}
- January 27, 2010 – Of 94 drilling sites tested for benzene in air over the Barnett Shale, the Texas Commission on Environmental Quality discovered two well sites emitting what they determined to be “extremely high levels” and another 19 emitting elevated levels.²³⁸

²³⁰ Gruver, M. (2011, March 8). Wyoming is beset by a big-city problem: Smog. *USA Today*. Retrieved from http://usatoday30.usatoday.com/money/industries/energy/2011-03-08-natural-gas-ozone-wyoming_N.htm

²³¹ Kembal-Cook, S., Bar-Ilan, A., Grant, J., Parker, L., Jung, J., Santamaria, W., . . . Yarwood, G. (2010). Ozone impacts of natural gas development in the Haynesville Shale. *Environmental Science & Technology*, 44(24), 9357-9363. doi: 10.1021/es1021137

²³² U.S. Environmental Protection Agency. (2013). Integrated science assessment for ozone and related photochemical oxidants. Retrieved from <http://www.epa.gov/ncea/isa/ozone.htm>

²³³ Shah, A. S., Lee, K. K., McAllister, D. A., Hunter, A., Nair, H., Whiteley, W., . . . Mills, N. L. (2015). Short term exposure to air pollution and stroke: systematic review and meta-analysis. *British Medical Journal*, 24(1295). doi: 10.1136/bmj.h1295

²³⁴ Shah, A. S., Langrish, J. P., Nair, H., McAllister, D. A., Hunter, A., L., Donaldson, K., . . . Mills, N. L. (2013). Global association of air pollution and heart failure: a systematic review and meta-analysis. *The Lancet*, 382(9897), 1039-1048. doi: 10.1016/S0140-6736(13)60898-3.

²³⁵ Myers, O., Flowers, H., Kang, H., Bedrick, E., Whorton, B., Cui, X., & Stidley, C. A. (2007). The association between ambient air quality ozone levels and medical visits for asthma in San Juan County. New Mexico Department of Health, Environmental Health Epidemiology Bureau Epidemiology and Response Division. Retrieved from <http://www.nmenv.state.nm.us/aqb/4C/Documents/SanJuanAsthmaDocBW.pdf>

²³⁶ Witter, R., McKenzie, L., Towle, M., Stinson, K., Scott, K., Newman, L., & Adgate, J. (2010). Health impact assessment for Battlement Mesa, Garfield County Colorado. *Colorado School of Public Health*. Retrieved from <http://www.garfield-county.com/public-health/documents/1%20%20%20Complete%20HIA%20without%20Appendix%20D.pdf>

²³⁷ Battlement Mesa HIA/EHMS. (2013, November 30). Retrieved from <http://www.garfield-county.com/environmental-health/battlement-mesa-health-impact-assessment-draft2.aspx>

²³⁸ The Associated Press. (2010, January 27). Texas agency finds high benzene levels on Barnett Shale. Retrieved from http://www.nola.com/business/index.ssf/2010/01/texas_agency_finds_high_benzen.html

Water contamination

Substantial evidence shows that drilling and fracking activities, and associated wastewater disposal practices, inherently threaten groundwater and have polluted drinking water sources. Repudiating industry claims of risk-free fracking, studies from across the United States present irrefutable evidence that groundwater contamination occurs as a result of fracking activities and is more likely to occur close to well pads. In Pennsylvania alone, the state has determined that 343 private drinking water wells have been contaminated or otherwise impacted as the result of drilling and fracking operations over an eight-year period. As determined by the U.S. Agency for Toxic Substances and Disease Registry (ATSDR), the chemical contamination of some private water wells in Dimock, Pennsylvania posed demonstrable health risks, rendering the water unsuitable for drinking.

Evidence of instances and pathways of water contamination exist even though scientific inquiry is impeded by industry secrecy and regulatory exemptions. The 2005 Energy Policy Act exempts hydraulic fracturing from key provisions of the Safe Drinking Water Act. As a result, fracking chemicals have been protected from public scrutiny as “trade secrets.” The oil and gas sector is the only U.S. industry permitted to inject known hazardous materials near, or directly into, underground drinking water aquifers. At the same time, in most states where fracking occurs, routine monitoring of groundwater aquifers near drilling and fracking operations is not required, nor are companies compelled to fully disclose the identity of chemicals used in fracking fluid, their quantities, or their fate once injected underground.

Nevertheless, of the more than 1,000 chemicals that are confirmed ingredients in fracking fluid, an estimated 100 are known endocrine disruptors, acting as reproductive and developmental toxicants. Adding to this mix are heavy metals, radioactive elements, brine, and volatile organic compounds (VOCs), which occur naturally in deep geological formations and which can be carried up from the fracking zone with the flowback fluid. As components of the fracking waste stream, these toxic substances also pose threats to surface water and groundwater. A 2017 study found that spills of fracking fluids and fracking wastewater are common, documenting 6,678 significant spills occurring over a period of nine years in four states alone. In these states, between 2 and 16 percent of wells report spills each year. About five percent of all fracking waste is lost to spills, often during transport.

Spills and intentional discharges of fracking waste into surface water have profoundly altered the chemistry and ecology of streams throughout entire watersheds, increasing downstream levels of radioactive elements, heavy metals, endocrine disruptors, toxic disinfection byproducts, and acidity, and decreasing aquatic biodiversity and populations of zooplankton and sensitive fish species, such as brook trout. Recent studies documenting changes in the bacterial flora in groundwater following drilling and fracking operations represent an emerging area of concern.

Demand for water to use in U.S. fracking operations continues to rise and has more than doubled since 2016. Unlike water used for agriculture or other industrial uses, the water used for fracking that remains in the shale bedrock is permanently lost to the hydrologic cycle. A suite of new studies now show that fracking can deplete streams and aquifers in ways that contribute to water stress and water scarcity. A 2018 study found that water use for fracking

operations increased by 770 percent per well between 2011 and 2016 across all U.S. shale basins. At the same time, the volume of fracking wastewater generated during the first year of extraction increased by up to 1440 percent. There is no known solution for the problem of fracking wastewater. It cannot be filtered to create clean, drinkable water, nor is there any safe method of disposal. Recycling is an expensive, limited option that increases radionuclide levels of subsequent wastewater. Underground reservoirs that receive fracking wastewater via injection into disposal wells, a practice that is linked to earthquakes, are reaching capacity in many regions of the United States.

- March 28, 2019 – Chemical surfactants are added to fracking fluid to emulsify, reduce surface tension, and inhibit corrosion. An engineering team looked at the chemical fate of these additives when they come back to the surface as shale gas wastewater. They found that high dissolved solids (salts) in the wastewater inhibit microbes that assist in biodegradation. “The presence of higher total dissolved solids appeared to exert an appreciable, long-standing effect on microbial community composition within one week of exposure to increased salinity, suggesting that an accidental release of recycled produced water may upset naturally occurring microbial communities.” These results imply that accidental spills of shale gas wastewater—or deliberate releases (as when fracking wastewater is used for de-icing roads or irrigation)—are likely to result in the environmental persistence of these surfactant chemicals. These findings have implications for treating and recycling fracking wastewater. Its high salt levels mean that it must be filtered through special desalinating membranes, but the persistent presence of surfactant chemicals can clog and damage these membranes.²³⁹
- March 14, 2019 – Rainbow trout exposed to levels of fracking wastewater that mimic those that would result from a low-level spill, as from a pipeline leak into a small river, did not show significant signs of salinity stress. However, their blood plasma did accumulate strontium and bromide. This study did not examine possible endocrine disrupting effects.²⁴⁰
- March 5, 2019 – Water fleas (*Daphnia spp.*) are freshwater zooplankton that feed on phytoplankton and play a crucial role in aquatic food webs. In a Canadian study, water fleas exposed to various concentrations of fracking wastewater displayed altered behaviors that impaired their ability to orient toward light, a response that allows them to avoid predation and find food. This study helps explain the results of earlier research that links fracking fluid exposure to decreased water flea survival. Water fleas are unable to detect and avoid fracking fluid spills.²⁴¹ (See also entry for April 28, 2018.)

²³⁹ Hanson, A. J., Luek J. L., Tummings, S. S., McLaughlin, M. C., Blotevogel, J., & Mouser, P. J. (2019). High total dissolved solids in shale gas wastewater inhibit biodegradation of alkyl and nonphenol ethoxylate surfactants. *Science of the Total Environment*, 668, 1094-1103. doi: 10.1016/j.scitotenv.2019.03.041

²⁴⁰ Delompre, P. L. M., Blewett, T. A., Snihur, K. N., Flynn, S. L., Alessi, D. S., Glover, C. N., & Goss, G. G. (2019). The osmotic effect of hyper-saline hydraulic fracturing fluid on rainbow trout, *Oncorhynchus mykiss*. *Aquatic Toxicology*, 211, 1-10. doi: 10.1016/j.aquatox.2019.03.009

²⁴¹ Delompre, P. L. M., Blewett, T. A., Goss, G. G., & Glover, C. N. (2019). Shedding light on the effects of hydraulic fracturing flowback and produced water on phototactic behavior in *Daphnia magna*. *Ecotoxicology and Environmental Safety*, 174, 315-323. doi: 10.1016/j.ecoenv.2019.03.006

- February 28, 2019 – An American University team compared water quality parameters in 19 small streams in an intensely fracked area of southwestern Pennsylvania with those of 10 equivalent streams in western Maryland where fracking is banned and has never taken place. Streams in both study areas overlie the Marcellus Shale. Even after accounting for variations in forest cover, urban development, and historical impacts from coal mining, the researchers found significant differences in concentrations of certain salts and heavy metals, including arsenic. The results “imply that water quality has been affected by [shale gas] development in the Marcellus Shale region” and “support the idea that the Pennsylvania streams have received greater pollution inputs than have the Maryland streams.”²⁴²
- February 11, 2019 – The U.S. Justice Department reached a settlement with Antero Resources Corporation over claims that it violated the Clean Water Act at 32 different drilling and fracking-related sites in West Virginia. The violations involved unauthorized dumping of fracking waste into local waterways.²⁴³
- February 7, 2019 – The Karoo Basin in South Africa is a semi-arid region underlain by gas-containing shale. Its bedrock is also rich in uranium, and, consequently, the basin has a range of different naturally occurring radioactive materials, including radium and radon gas. As part of a baseline study prior to fracking, a South African team monitored the presence of radon in groundwater in 53 aquifers throughout the Karoo Basin. They found that water in seven sites had levels of radon above levels considered safe by the World Health Organization. They also observed lower levels in cool, deep aquifers and higher levels of radon in warm, shallow aquifers, where seasonal and annual fluctuations were common.²⁴⁴
- January 22, 2019 – Demand for water to use in fracking operations for oil extraction has more than doubled since 2016, according to data from Rystad Energy, an energy research intelligence company. In the Permian Basin alone, located in west Texas and southeastern New Mexico, water demand for fracking now exceeds the total U.S. demand in 2016.²⁴⁵
- January 7, 2019 – From samples of fracking wastewater in Alberta, a Canadian team isolated a previously unidentified class of contaminants, aryl phosphates, which degrade into diphenyl phosphate. Experiments showed that diphenyl phosphate does not bind to clay-rich soils. Therefore, its transportation into groundwater following fracking waste

²⁴² Knee, K. L., & Masker, A. E. (2019). Association between unconventional oil and gas (UOG) development and water quality in small streams overlying the Marcellus Shale. *Freshwater Science*, 38(1). Advance online publication. doi:10.1086/701675

²⁴³ Reuters. (2019, February 11). U.S. settles with Antero over water pollution from fracking. Retrieved from <https://www.reuters.com/article/us-usa-antero/us-settles-with-antero-over-water-pollution-from-fracking-idUSKCN1Q021K>

²⁴⁴ Botha, R., Lindsay, R., Newman, R. T., Makeka, P. P., & Chimba, G. (2019). Radon in groundwater baseline study prior to unconventional shale gas development and hydraulic fracturing in the Karoo Basin (South Africa). *Applied Radiation and Isotopes*, 147, 7-13. doi: 10.1016/j.apradiso.2019.02.006

²⁴⁵ Rystad Energy (2019, January 22). Frac water demand is sky-rocketing [Press release]. Retrieved from <https://www.rystadenergy.com/newsevents/news/press-releases/Frac-water-demand-is-sky-rocketing/>

spills would be swift. Further research showed toxic effects of low-level exposure of diphenyl phosphate on fish embryos and embryonic chick tissue. Noting that hundreds of fracking waste spills are reported in Alberta each year, the researchers expressed concern that diphenyl phosphate “may pose an environmental risk to aquatic ecosystems if released into the environment.”²⁴⁶

- November 28, 2018 – Drilling and fracking operations in the Marcellus Shale region are known to harm biodiversity and reduce the populations of aquatic invertebrate animals that are the basis of the food chain in streams. A research team working in West Virginia investigated whether an observed population decline in a species of bird, the Louisiana Waterthrush, might be related to loss of these aquatic invertebrates, which are its prey. While the results varied from year to year and loss of food resources did not wholly explain the declines in waterthrush populations in areas of active drilling and fracking, “collective evidence suggests there may be a shale gas disturbance threshold at which waterthrush respond negatively to aquatic prey community changes.”²⁴⁷
- November 19, 2018 – Methane can find its way into groundwater through naturally occurring fractures and fissures in shale deposits or through openings created by nearby drilling and fracking operations. A team led by Pennsylvania State University geochemist Susan Brantley sampled methane in drinking water wells in Pennsylvania with and without fracking, focusing on an area where fracking wells had been cited for contaminating nearby drinking water wells—in some cases with levels of methane high enough to be at risk for explosion. Researchers found that elevated methane levels in water wells near these fracking operations were accompanied by attendant spikes in iron and sulfates. These findings “document a way to distinguish newly migrated methane from pre-existing sources of gas.” They also showed that methane and ethane concentrations in local water wells increased after gas drilling compared with predrilling concentrations and that these levels remained elevated seven years after leaks were initially reported.^{248, 249} “We’ve documented that recent methane migration can change water chemistry in a way that can mobilize metals, such as iron, and release other unwanted chemical compounds, such as hydrogen sulfide,” said Joshua Woda, a co-author of the study, in a press statement.²⁵⁰

²⁴⁶ Funk, S. P., Duffin, L., He, Y., McMullen, C., Sun, C., Utting, N., . . . Alessi, D. S. (2019). Assessment of impacts of diphenyl phosphate on groundwater and near-surface environments: Sorption and toxicity. *Journal of Contaminant Hydrology*, 221, 50-57. doi: 10.1016/j.jconhyd.2019.01.002

²⁴⁷ Frantz, M. W., Wood, P. B., & Merovich, Jr., G. T. (2018). Demographic characteristic of an avian predator, Louisiana Waterthrush (*Parkesia motacilla*), in response to its aquatic prey in a Central Appalachian USA watershed impacted by shale gas development. *PLOS One*, 13(11), e0206077. doi: 10.1371/journal.pone.0206077

²⁴⁸ Woda, J., Wen, T., Oakley, D., Yoxtheimer, D., Engelder, T., Castro, M. C., & Brantley, S. L. (2018). Detecting and explaining why aquifers occasionally become degraded near hydraulically fractured shale gas wells. *Proceedings of the National Academy of Sciences*, 115(49), 12349-12358. doi: 10.1073/pnas.1809013115

²⁴⁹ Bourzec, K. (2018, November 21). Chemical clues found for methane leaks caused by fracking. *Chemical and Engineering News*. Retrieved from <https://cen.acs.org/environment/water/Chemical-clues-found-methane-leaks/96/i47>

²⁵⁰ Carrol, M. (2018, November 19). Ground and stream water clues reveal shale drilling impacts [Press release]. Penn State News. Retrieved from <https://news.psu.edu/story/548378/2018/11/19/research/ground-and-stream-water-clues-reveal-shale-drilling-impacts>

- November 6, 2018 – As reported by the news outlet, *WyoFile*, contaminated drinking water in Pavillion, Wyoming was likely caused by gas leaking from faulty gas wells as well as by leaks from 40 unlined pits that, for many years, served as dumps for drilling wastewater. This was the conclusion of three researchers, including two former U.S. Environmental Protection Agency (EPA) scientists, who had been investigating the pollution of Pavillion’s groundwater, including drinking water wells for at least 30 homes. The scientists presented their findings to the community in advance of publishing a peer-reviewed scientific journal article. Statistical analyses show a correlation between what was disposed in the pits and contaminants appearing in nearby drinking water wells. One of the former EPA scientists told community members that the Wind River Formation drinking water aquifer will likely never be cleaned up. A preliminary report from the EPA in 2011 about groundwater contamination in Pavillion was never finalized.²⁵¹
- October 21, 2018 – Fracking brine, among other factors, is contributing to “freshwater salinization syndrome,” according to a study that examined the increasing saltiness of North American inland waters. Freshwater salinization, in turn, alters the behavior of other chemicals in water, mobilizing diverse chemical mixtures that alter drinking water quality.²⁵²
- October 17, 2018 – An international team of researchers tested fracking wastewater from two different wells in the Fox River area of Alberta, Canada for presence of endocrine-disrupting compounds. Using laboratory assays, they found that organic extracts of the wastewater samples did indeed disrupt hormone signaling pathways in environmentally relevant concentrations, as might occur in an accidental spill, however the wastewater from the two different wells did so in two different ways. “The results suggest that the properties and origins of endocrine-disrupting compounds in [fracking wastewater] from Wells A and B are different, complicating our understanding of potential environmental effects of releases.”²⁵³
- September 4, 2018 – Chemicals from fracking wastewater dumped into the Allegheny River Watershed a decade ago are still accumulating in mussels that live there. Researchers working in Pennsylvania found elevated levels of strontium in the shells of freshwater mussels living downstream of a disposal facility that treated fracking wastewater and released it into streams between 2008 and 2011. (The practice was halted thereafter when heavy metals and radioactivity began rising in drinking water). Mussels living upstream of the treatment plant showed no such elevated levels. Strontium is an elemental metal and a contaminant of fracking waste. It is absorbed by living organisms in a similar manner to calcium. Because mussels excrete their shells in discreet layers that

²⁵¹ Thuermer, A. M. (2018, November 6). Pavillion water experts fault leaky gas wells, unlined pits. *WyoFile*. Retrieved from <https://www.wyofile.com/pavillion-water-experts-fault-leaky-gas-wells-unlined-pits/>

²⁵² Kaushal, S. S., Likens, G. E., Pace, M. L., Haq, S., Wood, K. L., Galella, J. G., . . . Jaworski, N. (2018). Novel “chemical cocktails” in inland waters are a consequence of the freshwater salinization syndrome. *Philosophical Transactions of the Royal Society B*, 374, 20188017. doi: 10.1098/rstb.2018.0017

²⁵³ He, Y., Zhang, Y., Martin, J. W., Alessi, D. S., Giesy, J. P., & Goss, G. G. (2018). *In vitro* assessment of endocrine disrupting potential of organic fractions extracted from hydraulic fracturing flowback and produced water (HF-FPW). *Environment International*, 121, 824-831. doi: 10.1016/j.envint.2018.10.014

can be aged (like tree rings), researchers were able to show that shell layers created after 2011, when dumping of fracking waste into streams had ceased, did not show a sharp reduction in strontium, suggesting that downstream sediments may act as a reservoir for persistent contaminants years after dumping stops.²⁵⁴ This is one of the first studies to show bioaccumulation of fracking contaminants in the bodies of living animals, which means that fracking contaminants are entering the food chain. The most endangered of all North American fauna, freshwater mussels are currently suffering a mass extinction event, as a likely result of degraded water quality.²⁵⁵ Commenting on these findings in a press statement, lead author Nathaniel Warner said, “We know that Marcellus development has impacted sediments downstream for tens of kilometers. And it appears it still could be impacted for a long period of time. The short timeframe that we permitted the discharge of these wastes might leave a long legacy.”²⁵⁶

- August 29, 2018 – Using reports created by the oil and gas industry, a Colorado State University team evaluated fracking waste spills in Weld County, Colorado and found that while large-scale operations generated less fracking wastewater per unit of energy generated, the total volume of spilled waste increased as the size of the operation increased. “The results suggest that employing fewer, large-scale operators would help reduce the overall volume of [wastewater] generated but not the overall volume spilled.” This study also found that the probability of groundwater contamination from those spills was not correlated with either the spill area or with the volume spilled. Instead, the depth to groundwater was a more accurate predictor of the probability of contamination, with shallow water tables at highest risk.²⁵⁷
- August 17, 2018 – With 548 permitted wells as of 2017, Belmont County is the most intensely fracked county in the state of Ohio. A Yale University team collected drinking water samples from 66 households in Belmont County that were located at varying distances away from well pads and analyzed them for the presence of fracking-related chemical contaminants. They also interviewed residents about their health symptoms. The primary goal of this exploratory study was to determine whether residential proximity to fracked wells was related to detection and concentrations of health-relevant drinking water contaminants. A second objective was to evaluate possible relationships between proximity to wells and health complaints in the community. The team found that all homes had at least one volatile organic compound or other organic compound above detectable levels and that prevalence of contaminants in drinking water, including

²⁵⁴ Geeza, T. J., Killikin, D. P., McDevitt, B., Van Sice, K., & Warner, N. R. (2018). Accumulation of Marcellus Formation oil and gas wastewater metals in freshwater mussel shells. *Environmental Science & Technology*, 52(18), 10883-10892. doi: 10.1021/acs.est.8b02727

²⁵⁵ Marusic, K. (2018, September 5). Fracking chemicals dumped in the Allegheny River a decade ago are still showing up in mussels: study. *Environmental Health News*. Retrieved from <https://www.ehn.org/chemicals-from-fracking-in-pennsylvania-polluting-freshwater-mussels-2602333500.html>

²⁵⁶ Matthews, J. (2018, October 22). Fracking wastewater accumulation found in freshwater mussels' shells. [Press release.] *Penn State News*. Retrieved from <https://news.psu.edu/story/543054/2018/10/22/research/fracking-wastewater-accumulation-found-freshwater-mussels-shells>

²⁵⁷ Shores, A., & Laituri, M. (2018) The state of produced water generation and risk for groundwater contamination in Weld County, Colorado. *Environmental Science and Pollution Research*, 25, 30390-30400. doi: 10.1007/s11356-018-2810-8

toluene, bromoform, and dichlorobromomethane, was higher in homes closer to the wells. Further, people who lived closer to multiple wells were more likely to report health problems including wheezing, stress, fatigue, and headache. This is the first study to concurrently collect drinking water samples, health information, and data on proximity to drilling and fracking operations.²⁵⁸

- August 15, 2018 – Using well information from the U.S. Energy Information Agency as well as state-based agencies, a Duke University team examined changes in water use intensity in U.S. drilling and fracking operations as horizontal drilling has evolved toward ever-long lateral wellbores. They found that water use for fracking operations increased by 770 percent per well between 2011 and 2016 across all U.S. shale basins. At the same time, the volume of fracking wastewater generated during the first year of extraction increased by up to 1,440 percent. “The steady increase of the water footprint of hydraulic fracturing with time implies that future unconventional oil and gas operations will require larger volumes of water for hydraulic fracturing, which will result in larger produced oil and gas wastewater volumes.” Noting that the freshwater used for hydraulic fracturing is either retained within the shale formation or returns as highly saline flowback waste that is often subsequently disposed of via deep well injection, the authors concluded that “the permanent loss of water use for hydraulic fracturing from the hydrosphere could outweigh its relatively lower water intensity” compared to other industrial uses of water, such as agriculture, where water is not lost to the hydrological cycle.²⁵⁹
- August 5, 2018 – Using water collected from streams and a reservoir near Middletown, Pennsylvania, a research team investigated how contamination with fracking chemicals, as during a spill event, alters the formation of disinfection byproducts when surface water is chlorinated for use as drinking water. They found a shift toward the creation of more brominated compounds. This finding has significant concerns for public health because brominated chemicals are not easily removed during the water treatment process and because discharge of bromide to surface waters remains largely unregulated.²⁶⁰
- July 19, 2018 – By simulating spills and discharge of fracking wastewater into rivers and streams, a Pennsylvania research team investigated the effects of fracking wastewater salinity on the creation of disinfection byproducts during drinking water treatment. They found evidence that the ions in salty fracking waste enhance the creation of these deleterious chemicals in ways that conventional water treatment processes cannot easily remove. “Further studies should focus on salinity removal technologies such as reverse osmosis, nanofiltration, electrodialysis, ion exchange, and lime/soda ash softening.”²⁶¹

²⁵⁸ Elliott, E. G., Ma, X., Leaderer, B. P., McKay, L. A., Pedersen, C. J., Wang, C., ... & Deziel N. C. (2018). A community-based evaluation of proximity to unconventional oil and gas wells, drinking water contaminants, and health symptoms in Ohio. *Environmental Research*, 167, 550-557. doi: 10.1016/j.envres.2018.08.022

²⁵⁹ Kondash, A. J., Lauer, N. E., & Vengosh, A. (2018). The intensification of the water footprint of hydraulic fracturing. *Science Advances*, 4(8), eaar5982. doi: 10.1126/sciadv.aar5982

²⁶⁰ Huang, K. Z., Yuefeng, F. X., & Tang, H. L. (2018). Formation of disinfection by-products under influence of shale gas produced water. *Science of the Total Environment*, 647, 744-751. doi: 10.1016/j.scitotenv.2018.08.055

²⁶¹ Huang, K. Z., Tang, H. L., & Yuefeng, F. Z. (2018). Impacts of shale gas production wastewater on disinfection byproduct formation: An investigation from a non-bromide perspective. *Water Research*, 144, 656-664. doi: 10.1016/j.watres.2018.07.048

- July 13, 2018 – Chemicals associated with fracking operations have been known to contaminate surface and ground water, and many of them have been identified as endocrine disruptors in mammals, raising questions about possible perturbations of other biological processes, such as immunity. Using tadpoles, an international team investigated how chemicals found in fracking wastewater might affect the developing immune system in amphibians. They found evidence for concern. Even at doses below those found in groundwater near spill sites, many exposed tadpoles died. “A first finding of this study is the startling toxicity of the [fracking chemical] mixture to tadpoles...it seems likely that the lethal effect results from the combined activity of some or all of these chemicals.” Lower doses significantly altered genes associated with immune functioning and made the developing frogs less able to fight off viral infections. “These findings suggest that [fracking-associated] water pollutants at low but environmentally relevant doses have the potential to induce acute alterations of immune function and antiviral immunity.”²⁶²
- July 4, 2018 – Wastewater samples from a newly fracked oil well in Colorado were examined over 220 days using assays to assess changing toxicity levels. The results revealed significant toxicity throughout well production and during the first 55 days of flowback, with peak toxicity occurring on the first day of flowback. Researchers also looked at the community of microbes (bacteria and archaea) living in the wastewater. Some of these organisms originated from deep in the shale formation and others from the source water used for fracking. These species rapidly changed in relative abundance to one another as the toxicity of the wastewater evolved over time. “Late stage produced water communities gradually became similar to those in the earliest sample of flowback water, indicating that early conditions have a great impact on the resident microbiota over the life of the well.”²⁶³
- June 21, 2018 – A Duke University-led lab study used mouse tissue cultures to investigate possible impacts of fracking wastewater exposure on the development of fat cells. They found that exposure to mixtures of 23 fracking chemicals, as well as raw stream water believed to be contaminated with fracking waste, promoted the growth of fat cells—even at very low concentrations. Collectively, these results show that fracking wastewater has the potential to impair metabolic health at levels found in the environment.²⁶⁴ In a statement to the media, co-author Chris Kassotis said, “We saw significant fat cell proliferation and lipid accumulation, even when wastewater samples

²⁶² Robert, J., McGuire, C. C., Kim, F., Nagel, S. C., Price, S. J., Lawrence, B. P., & De Jesus Andino, F. (2018). Water contaminants associated with unconventional oil and gas extraction cause immunotoxicity to amphibian tadpoles. *Toxicological Sciences*, 166(1), 39050. doi: 10.1093/toxsci/kfy179

²⁶³ Hull, N. M., Rosenblum, J. S., Robertson, C. E., Harris, J. K., & Linden, K. G. (2018). Succession of toxicity and microbiota in hydraulic fracturing flowback and produced water in the Denver-Julesburg Basin. *Science of the Total Environment*, 644, 183-192. doi: 10.1016/j.scitotenv.2018.06.067

²⁶⁴ Kassotis, C. D., Nagel, S. C., & Stapleton, H. M. (2018). Unconventional oil and gas chemicals and wastewater-impacted water samples promote adipogenesis via PPAR γ -dependent and independent mechanisms in 3T3-L1 cells. *Science of the Total Environment*, 640-641, 1601-1610. doi: 10.1016/j.scitotenv.2018.05.030

were diluted 1,000-fold from their raw state and when wastewater-affected surface water samples were diluted 25-fold.”²⁶⁵

- April 28, 2018 – A Canadian study found that the water flea (*Daphnia magna*) becomes immobilized when the surface of test waters are contaminated with fracking waste. This effect was persistent and occurred at concentrations significantly lower than is required to kill this common zooplankton outright. Immobilized *Daphnia* did not recover after 48 hours, could not feed, and became unable to shed their carapace, thus impeding reproduction. The evidence suggests that surfactants in fracking fluid together with floating hydrocarbons work together to reduce surface tension in ways that disallow *Daphnia* from re-entering the water column. “The current study shows that an important component of the toxicity of [fracking wastewater] to *Daphnia magna* is physical impairment. Depending on how the endpoint of a toxicity test is defined, this mode of action may not be accounted for in laboratory assessments used to determine risk. However, physical toxicity effects are likely to be important in environmental settings where [fracking wastewater] spills may occur.”²⁶⁶ (See also entry for March 5, 2019.)
- April 11, 2018 – A Drexel University team undertook a risk assessment of residential exposures to drinking water contaminated by fracking wastewater (flowback water). This simulation study found that within just eight hours—a realistic timeline for continual exposure due to a spill event—radioactive substances in the wastewater could produce demonstrable risks to human health, especially through the inhalation route. These radioactive compounds posed a greater threat to human health than other contaminants examined in this assessment, including arsenic, benzene, and vinyl chloride. “Radionuclides, which are known to exist in [fracking wastewater] as a result of occurring naturally within shale formations, pose a significant risk to human health and increase the likelihood of developing cancer in exposed individuals...median values for inhalation risk are at unacceptable levels. These exposures are due to the radionuclides aerosolizing from water primarily during showering.... Exposure to certain compounds of flowback water for only a few hours or days...can still present adverse effects.”²⁶⁷
- April 9, 2018 – An analysis of the bacterial community in 31 northwestern Pennsylvania trout streams showed that fracking activity altered the composition of species found in the sediment. Confirming the findings of previous studies, streams near drilling and fracking activity had significantly higher numbers of methane-metabolizing and methane-producing microorganisms, which are tolerant to acidic conditions. “Altogether, this study highlighted stable bacterial taxa responding to Marcellus shale activity and further

²⁶⁵ Lucas, T. (2018, June 21). Exposure to fracking chemicals and wastewater spurs fat cells. [Press release.] *Duke University Nicholas School for the Environment News*. Retrieved from <https://nicholas.duke.edu/about/news/exposure-fracking-chemicals-and-wastewater-spurs-fat-cells>

²⁶⁶ Blewett, T. A., Delompré, P. L. M., Glover, C. N., & Goss, G. G. (2018). Physical immobility as a sensitive indicator of hydraulic fracturing fluid toxicity toward *Daphnia magna*. *Science of the Total Environment*, 635, 639-43. doi: 10.1016/j.scitotenv.2018.04.165

²⁶⁷ Abualfaraj, N., Gurian P. L., & Olson, M. S. (2018). Assessing residential exposure risk from spills of flowback water from Marcellus Shale hydraulic fracturing activity. *International Journal of Environmental Research and Public Health*, 15, 727. doi: 10.3390/ijerph15040727

supplements a longitudinal correlation of increased acidity of stream water and fracking activity adjacent to headwater streams over five years.”²⁶⁸

- April 8, 2018 – Working in the South Fork Little Red River watershed in northern Arkansas, a research team found that populations of invertebrate animals were reduced downstream of drilling and fracking operations relative to upstream.²⁶⁹
- April 6, 2018 – Chemical characterization and toxicological testing of wastewater from fracked and conventionally drilled oil and gas wells in Pennsylvania were compared. Wastewater from both types of wells was equally toxic to animal and human cells growing in culture and was corrosive at high concentrations. This toxicity was not attributable to the presence of salts alone. Hydrocarbon chemicals were found in both well types and are known to be toxic to multiple human organs. “In vitro assays showed that normal cell survival, behavior, and morphology were severely impaired by short-term exposure to either type of sample at up to 1000-fold dilutions. ... Taken together, these results suggest that exposure to leaks or spills associated with either conventional or unconventional oil and gas extraction could potentially impact human health.”²⁷⁰
- April 5, 2018 – Led by researchers from the University of Missouri, a study conducted in Pavillion, Wyoming compared the effects of water pollution linked to fracking to effects from conventional drilling. Endocrine-disrupting chemicals were found in 22 groundwater samples taken near both kinds of wells. However, the results showed that contaminated groundwater collected near fracking sites was more disruptive to hormonal signaling in human cells than contaminated groundwater collected from conventional well pads. These results corroborate those of past studies.²⁷¹ In an associated news story in *WyoFile*, Christopher Kassotis, one of the co-authors of the new study, said, “We have now reported similar endocrine bioactivities across numerous unconventional oil/gas sampling regions, and other researchers are beginning to demonstrate similar effects in cell and animal models. These, above all else, lend strong support for our findings.”²⁷²
- March 5, 2018 – An exemption in the Safe Drinking Water Act allows hydraulic fracturing operations to escape federal regulation, leaving it up to individual states to determine how groundwater resources used for drinking are protected during fracking

²⁶⁸ Ulrich, N., Kirchner, V., Drucker, R., Wright, J. R., McLimans, J., Hazen, T. C., . . . Lamendella, R. (2018). Response of aquatic bacterial communities to hydraulic fracturing in northwestern Pennsylvania: A five-year study. *Scientific Reports*, 8(1), 5683. doi: 10.1038/s41598-018-23679-7

²⁶⁹ Austin, B. J., Kelso, J. E., Evans-White, M. A., Entrekin, S. A., & Haggard, B. E. (2018). Can high volume hydraulic fracturing effects be detected in large watersheds? A case study of the South Fork Little Red River. *Current Opinion in Environmental Science & Health*, 3, 40-46. doi: 10.1016/j.coesh.2018.04003

²⁷⁰ Crosby, L.M., Tatu, C. A., Varonka, M., Charles, K. M., & Orem, W. H. (2018). Toxicological and chemical studies of wastewater from hydraulic fracture and conventional shale gas wells. *Environmental Toxicology*, 37(8), 2098-2111. doi: 10.1002/etc.4146

²⁷¹ Kassotis, C. D., Vu, D. C., Vo, P. H., Lin, C.-H., Cornelius-Green, J. N., Patton, S., & Nagel, S. C. (2018). Endocrine-disrupting activities and organic contaminants associated with oil and gas operations in Wyoming groundwater. *Archives of Environmental Contamination and Toxicology*, 72(2), 247-258. doi: 10.1007/s00244-018-0521-2

²⁷² Thuermer, Jr., A. M. (2018, April 27). Study: Water near fracked Wyo gas field disrupts hormones. *WyoFile*. Retrieved from <https://www.wyofile.com/study-water-near-fracked-wyo-gas-field-disrupts-hormones/>

operations that take place on lands without federal or tribal mineral rights. A research team from Stanford University, University of California, Berkeley, and Lawrence Berkeley National Laboratory assessed these state-based oil and gas regulations in 17 different states. They found that the definitions of “protected groundwater” are vague, inconsistent and, very often, offer less protection than federal regulations. For example, in Alabama and New Mexico, protection of drinking water appears discretionary. In Colorado and Texas, protection of drinking water depends on the location of the oil and gas fields. In Illinois, protection during fracking only applies to horizontal wells. In California, drinking water must be monitored but not explicitly protected. Concluding from these findings that the nation’s drinking water resources are vulnerable to contamination from oil and gas extraction and wastewater disposal, the research team recommended that criteria defined by the EPA for an underground drinking water source be consistently used to define protected groundwater in state-based oil and gas regulations.²⁷³

- February 15, 2018 – A UK team used reports from the Texas Railroad Commission (1999-2015) and the Colorado Oil and Gas Conservation Commission (2009-2015) to examine spill rates from oil and gas well pads. They found that the spill rate in both Colorado and Texas significantly increased over the recorded time period, with equipment failure cited as the most common cause. In Colorado, 33 percent of the spills were discovered during site remediation and random site inspections. Using these data, the team predicted that a UK fracking industry would likely experience a spill for every 19 well pads developed.²⁷⁴
- January 31, 2018 – Researchers in Arkansas found that water withdrawals for fracking operations can dangerously deplete water levels in up to 51 percent of streams in ways that potentially threaten drinking water supplies, damage aquatic life, and disrupt recreation. “There is potential for these withdrawals to cause water stress,” the paper concluded.²⁷⁵ Water stress represents risk of water scarcity for people caused by increases in economic costs or altered stream flow that results in loss of aquatic biodiversity and ecosystem functioning.
- January 27, 2018 – Fracking wastewater is a developmental toxicant to zebra fish embryos, according to results of a laboratory study conducted by a Canadian team of researchers. Exposure to various concentrations of fracking flowback and produced

²⁷³ DiGiulio, D. C., Shonkoff, S. B. C., & Jackson, R. B. (2018). The need to protect fresh and brackish groundwater resources during unconventional oil and gas development. *Current Opinion in Environmental Science and Health*, 3, 1-7. doi: 10.1016/j.coesh.2018.01.002

²⁷⁴ Clancy, S. A., Worrall, F., Davies, R. J., & Gluyas, J. G. (2018). The potential for spill and leaks of contaminated liquids from shale gas developments. *Science of the Total Environment*, 626, 1463-1473. doi: 10.1016/j.scitotenv.2018.01.177

²⁷⁵ Entekin, S., Trainor, A., Saiers, J., Patterson, L., Maloney, K., Fargione, J., . . . Ryan, J. N. (2018). Water stress from high-volume hydraulic fracturing potentially threatens aquatic biodiversity and ecosystem services in Arkansas, United States. *Environmental Science & Technology*, 52(4), 2349-2358. doi: 10.1021/acs.est.7b03304

water, collected from well sites in Alberta, was linked to spinal and heart abnormalities and patterns of altered gene expression consistent with endocrine disruption.²⁷⁶

- January 23, 2018 – An Ohio State University team developed and used numerical models to simulate how methane from a leaking well could migrate into different types of drinking water aquifers. Their results showed that rapid, long-distance gas flow was most likely to occur when a pulse of gas under high pressure from a faulty gas well entered into a fractured rock aquifer. In these cases, methane can easily migrate a distance of 1 kilometer within a week and in many different directions, including laterally away from the natural gas well. Current efforts to evaluate natural gas leakage from faulty wells “likely underestimate contributions from small-volume, low-pressure leakage events,” which require extended periods of environmental monitoring.²⁷⁷
- January 16, 2018 – An editorial in the journal *Groundwater* warned researchers against being too quick to dismiss the presence of methane in groundwater near fracking sites as “always naturally occurring,” especially in places where no pre-drill baseline data are available or in studies where average methane levels are being compared. Noting that the geological conditions that facilitate the natural migration of hydrocarbons are often “muddled, obfuscating the presence of hydrocarbon pollution due to gas leaking from production wells,” the editorial encouraged study designs that make use of odds-ratio tests and geochemical tracers. Fractured rocks within shallow aquifers, in particular, are concerning “both in terms of their potential for facilitating rapid ... gas flow, and their inherent geometric complexity, which impact hydrocarbon gas transport mechanisms.”²⁷⁸
- January 16, 2018 – The Pennsylvania Department of Environmental Protection determined that fracking wastewater that had leaked from a storage pit contaminated groundwater and rendered a natural spring used for drinking water in Greene County undrinkable.²⁷⁹
- January 9, 2018 – A University of Texas team collected groundwater samples from across shale basins in Texas and reported on the discovery of opportunistic, pathogenic bacteria in fracking-impacted water wells in Texas. These results raise questions about fracking’s effects on the microbial ecology of aquifers. Commenting on their findings, the researchers noted, “The results were quite surprising. Not only did we find that various opportunistic pathogens could survive in the presence of hydrocarbon gases and chemical additives, they appeared to thrive and exhibited robust resistance profiles to

²⁷⁶ He, Y., Sun, C., Zhang, Y., Folkerts, E. J., Martine, J. W., & Goss, G. G. (2018). Developmental toxicity of the organic fraction from hydraulic fracturing flowback and produced water to early life stages of zebrafish (*Danio rerio*). *Environmental Science & Technology*, 52, 3820-3830. doi: 10.1021/acs.est.7b06557

²⁷⁷ Moortgat, J., Schwartz, F. W., & Darrah, T. H. Numerical modeling of methane leakage from a faulty natural gas well into fractured tight formations. *Groundwater*, 56(2), 163-175. doi: 10.1111/gwat.12630

²⁷⁸ Darrah, T. H. (2018). Time to settle the fracking controversy. *Groundwater*, 65(2). doi: 10.1111/gwat.12636

²⁷⁹ Niedbala, B. (2018, January 16). W. Va. company fined \$1.7 million for violations at 14 well sites in Greene County. *Observer-Reporter*. Retrieved from https://observer-reporter.com/news/localnews/w-va-company-fined-million-for-violations-at-well-sites/article_cc1ce344-faec-11e7-84ca-076df3832f29.html

multiple antibiotics. We even observed that certain pathogens were resilient to high levels of chlorination.”²⁸⁰

- December 11, 2017 – A report by the *Texas Observer* investigated groundwater depletion by fracking operations in west Texas at the southern edge of the Ogallala Aquifer. Groundwater conservation districts lack legal financial resources to restrict groundwater pumping or even compel metering on water wells that would monitor exactly how much water is pumped. In Howard County alone, water used for fracking is now believed to constitute about 20 percent of average annual water use.²⁸¹
- November 16, 2017 – The 2005 Energy Policy Act prohibited the EPA from regulating fracking under the Safe Drinking Water Act and from requiring that operators disclose their chemicals. According to an investigation by *InsideClimate News*, the scientific study that justified this provision (which is widely known as the Halliburton loophole) was the subject of a whistleblower complaint. The study was also disavowed by its authors, who said the conclusion of the report—that fracking posed no risk to groundwater—was not supported by the evidence. These authors removed their names from the final document. Interviewed for the story, one of these authors said that the belief that fracking was safe for water was a foregone conclusion at the EPA under George W. Bush. “What we would have said in the conclusion is that there is some form of risk from hydraulic fracturing to groundwater. How you quantify it would require further analyses, but, in general, there is some risk.”²⁸²
- November 9, 2017 – As part of a preliminary study, a Texas team assessed the groundwater microbiome in a rural area of southern Texas where farming and fracking co-exist. Each of the sampled water wells had a unique community of microorganisms living in the water. The dominant bacteria were denitrifying species that transform nitrates into gaseous nitrogen or those that break apart hydrocarbon molecules. Earlier studies have postulated that fracking can alter the chemical composition of groundwater and change the species composition of the microbial communities living within it. The results of this study “do not provide a definitive link between [fracking] or agricultural activities and the groundwater microbiome; however, they do provide a baseline measurement of bacterial diversity and quantity in groundwater located near these anthropogenic activities.”²⁸³

²⁸⁰ Hildenbrand, Z. L., Santos, I., & Schug, K. (2018, January 9). Detecting harmful pathogens in water: Characterizing the link between fracking and water safety. *Science Trends*. Retrieved from <https://sciencetrends.com/detecting-harmful-pathogens-water-characterizing-link-fracking-water-safety/>

²⁸¹ Collins, C. (11 December, 2017). Big spring vs. big oil. *Texas Observer*. Retrieved from <https://www.texasobserver.org/big-spring-vs-big-oil/>

²⁸² Banerjee, N. (16 November, 2017). Industrial strength: How the U.S. government hid fracking's risks to drinking water. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/16112017/fracking-chemicals-safety-epa-health-risks-water-bush-cheney>

²⁸³ Santos, I. C., Martin, M. S., Reyes, M. L., Carlton Jr., D. D., Stigler-Granados, P., Valerio, M. A., ... & Schug, K. A. (2017). Exploring the links between groundwater quality and bacterial communities near oil and gas extraction activities. *Science of the Total Environment*. 618, 165-173. doi: 10.1016/j.scitotenv.2017.10.264

- November 1, 2017 – In Oklahoma, horizontal wells can be fracked within 600 feet of older, vertical wells that do not use fracking. Oil companies in Oklahoma that extract oil using conventional, vertical wells alleged that hundreds of their wells have been inundated by fluids from nearby horizontal wells that use high-volume hydraulic fracturing, as documented by *E&E News*. Vertical well operators have raised questions about whether these “frack hits” from nearby horizontal wells that have flooded their own wells have also reached the groundwater. “Logic said it will impact [groundwater],” said one driller. “There was water coming up out of the ground. There was enough pressure to bring it to the surface.” Small operators of vertical wells, organized as the Oklahoma Energy Producers Alliance (OEPA), released a study estimating that, in just one county alone, there were 400 cases of frack fluid from horizontal wells flooding nearby vertical wells.^{284, 285}
- October 31, 2017 – A study of fracking wastewater disposed of in rivers and streams found that chemical contaminants in the waste were transformed into more toxic substances when they chemically reacted with chlorinated compounds discharged from downstream drinking water treatment plants. The result was dozens of different, brominated and iodinated disinfection byproducts (DBPs). A lab analysis found that all were highly toxic to mammalian cells. Conventional water treatment practices do not remove these chemicals. “It is likely that in oil- and gas-impacted drinking water sources, iodo-phenolic DBPs could form at significant levels, particularly in cases in which chloramination is used.”²⁸⁶
- October 18, 2017 – Researchers concerned about reports of skin rashes, gastrointestinal distress, and breathing problems among people who live near drilling and fracking operations found increased levels of certain harmful bacteria in private water wells impacted by fracking in the Barnett and Eagle Ford Shale areas in Texas. These results raise questions about whether drilling and fracking activities could alter the communities of microorganisms in groundwater in ways that pose health risks. According to one of the lead authors of the study, interviewed in the *Dallas News*, “the potential contribution of these microbes to these health effects is probably understudied, underappreciated, unknown.”^{287, 288}

²⁸⁴ Soraghan, M. (1 November, 2017). Now it’s oilmen who say fracking could harm groundwater. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060065209>

²⁸⁵ OEPA. (2017, September 14). Are vertical wells impacted by horizontal drilling? A study of Kingfisher County. *E&E News*. Retrieved from https://www.eenews.net/assets/2017/10/27/document_pm_07.pdf

²⁸⁶ Liberatore, H. K., Plewa, M. J., Wagner, E. D., VanBriesen, J. M., Burnett, D. B., Cizmas, L. H., & Richardson, S. D. (2017). Identification and comparative mammalian cell cytotoxicity of new iodo-phenolic disinfection byproducts in chloraminated oil and gas wastewaters. *Environmental Science & Technology Letters*, 4(11), 475–480. doi: 10.1021/acs.estlett.7b00468

²⁸⁷ Martin, M. S., Santos, I. C., Carlton Jr. D. D., Stigler-Granados, P., Hildenbrand, Z. L., & Schug, K. A. (2017). Characterization of bacterial diversity in contaminated groundwater using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. *Science of the Total Environment*. Advance online publication. doi: 10.1016/j.scitotenv.2017.10.027

²⁸⁸ Mosier, J. (2017, December 1). UTA research finds dangerous bacteria in groundwater near Texas gas drilling sites. *Dallas News*. Retrieved from <https://www.dallasnews.com/business/energy/2017/12/01/uta-study-finds-dangerous-bacteria-groundwater-near-texas-gas-drilling-sites>

- August 3, 2017 – Due to permitting errors and a mix-up in records 30 years ago, wastewater from drilling operations in California was mistakenly injected directly into drinking water aquifers. Six years after the discovery of the problem, 175 wastewater wells that were illegally injecting into protected aquifers have been shut down, but hundreds more are still operating. An investigation by KQED Science revealed that California state water regulators know very little about the actual impact of those injections on the state’s drinking water reserves. “State water regulators say they hope to figure out what the larger impacts have been in years ahead, but have no set timeline. The risk is that they’ve allowed oil companies to contaminate drinking water aquifers to such an extent that Californians may have permanently lost those sources of fresh water.”²⁸⁹ An earlier investigation by KQED Science revealed that illegal wastewater wells would still be allowed to operate while the necessary paperwork was filed.²⁹⁰
- July 12, 2017 – In western Pennsylvania, a team of researchers looked at sediments in the Conemaugh River watershed downstream of a treatment plant that was specially designed to treat fracking wastewater. The researchers found contamination for many miles downstream with fracking-related chemicals that included radium, barium, strontium, and chloride, as well as endocrine-disrupting and carcinogenic compounds. The peak concentrations were found in sediment layers that had been deposited during the years of peak fracking wastewater discharge. Elevated concentrations of radium were detected as far as 12 miles downstream of the treatment plant and were up to 200 times greater than background. Some stream sediment samples were so radioactive that they approached levels that would, in some U.S. states, classify them as radioactive waste and necessitate special disposal.^{291, 292}
- May 31, 2017 – A U.S. Geological Survey (USGS) team sampled drinking water wells near drilling and fracking sites in the Eagle Ford, Fayetteville, and Haynesville Shale basins and found detectable levels of methane and benzene. However, the sources of these contaminants were unclear, and, given the slow travel time of groundwater, “decades or longer may be needed to fully assess the effects of potential subsurface and surface releases of hydrocarbons on the wells.”²⁹³

²⁸⁹ Sommer, L. (17 August, 2017). How much drinking water has California lost to oil industry waste? No one knows. *KQED Science*. Retrieved from <https://ww2.kqed.org/science/2017/08/03/how-much-drinking-water-has-california-lost-to-oil-industry-waste-no-one-knows/>

²⁹⁰ Sommer, L. (17 January, 2017). California says oil companies can keep dumping wastewater during state review. *KQED Science*. Retrieved from <https://ww2.kqed.org/science/2017/01/17/california-says-oil-companies-can-keep-dumping-wastewater-during-state-review/>

²⁹¹ Burgos, W. D., Castillo-Meza, L., Tasker, T. L., Geeza, T. J., Drohan, P. J., Liu, X., ... Warner, N. R. (2017). Watershed-scale impacts from surface water disposal of oil and gas wastewater in Western Pennsylvania. *Environmental Science & Technology*, 51(15), 8851–8860. doi: 10.1021/acs.est.7b01696

²⁹² Johnston, I., (2017, July 12). Fracking can contaminate rivers and lakes with radioactive material, study finds. *The Independent*. Retrieved from <http://www.independent.co.uk/news/science/fracking-dangers-environment-water-damage-radiation-contamination-study-risks-a7837991.html>

²⁹³ McMahon, P., Barlow, J. R. B., Engle, M. A., Belitz, K., Ging, P. B., Hunt, A. G., ... & Kresse, T. M. (2017). Methane and benzene in drinking-water wells overlying the Eagle Ford, Fayetteville, and Haynesville Shale hydrocarbon production areas. *Environmental Science & Technology*, 51(12), 6727-6734. doi: 10.1021/acs.est.7b00746

- May 1, 2017 – A study examining the impacts of drilling and fracking operations on public drinking water in Pennsylvania found evidence of contamination when drinking water source intakes were located within one kilometer (.62 miles) of a well pad. Noting that many Pennsylvanians living near well pads drink bottled water, the authors concluded, “our results suggest that these perceived risks may in fact be justified.”²⁹⁴ (See also entry below for October 13, 2016.)
- April 19, 2017 – Using data from the South Coast Air Quality Monitoring District, a team of researchers in California compared chemicals used in fracking operations with those used in the routine maintenance of conventional oil and gas wells where chemicals are used to aid in drilling, for corrosion control, to clean the wellbore, and to enhance oil recovery. They found significant overlap in both the types and amounts of chemicals used. “The results of this study indicate regulations and risk assessments focused exclusively on chemicals used in well-stimulation activities may underestimate potential hazard or risk from overall field chemical-use. . . . Our analysis shows that hydraulic fracturing is just one of many applications of hazardous chemicals on oil and gas fields.”²⁹⁵
- April 5, 2017 – A three-year study in West Virginia led by scientists at Duke University assessed surface water and groundwater drawn from drinking water wells both before and after drilling and fracking began in the region. Using geochemical techniques, including a suite of tracers that help distinguish naturally occurring methane and salts from those contained in fracking fluid, the researchers found no evidence of groundwater contamination. They did, however, document threats to surface water from fracking wastewater spills.²⁹⁶ In an accompanying statement, the researchers noted, “What we found in the study area in West Virginia after three years may be different from what we see after 10 years because the impact on groundwater isn’t necessarily immediate.”²⁹⁷
- Feb 21, 2017 – Between 2005 and 2014, researchers surveyed spill record data from drilling and fracking operations in four states (Colorado, New Mexico, North Dakota, and Pennsylvania). During these nine years, they documented 6,678 total spills, or about five spills each year for every 100 wells. Between 2 and 16 percent of wells reported a spill each year. Half of all spills were related to storage and transport of fluids through flow lines. The authors also found that the chances of spills are highest during the first three

²⁹⁴ Hill, E., & Ma, L. (2017). Shale gas development and drinking water quality. *American Economic Review: Papers & Proceedings*, 107(5), 522–525. doi: 10.1257/aer.p20171133

²⁹⁵ Stringfellow, W. T., Camarillo, M. K., Domen, J. K., & Shonkoff, S. B. C. (2017) Comparison of chemical-use between hydraulic fracturing, acidizing, and routine oil and gas development. *PLoS ONE*, 12(4), e0175344. doi: 10.1371/journal.pone.0175344

²⁹⁶ Harkness, J. S., Darrah, T. H., Warner, N. R., Whyte, C. J., Moore, M. T., Millot, R., . . . Vengosh, A. (2017). The geochemistry of naturally occurring methane and saline groundwater in an area of unconventional shale gas development. *Geochimica et Cosmochimica Acta*, 208, 302–334. doi: 10.1016/j.gca.2017.03.039

²⁹⁷ Lucas, T. (2017, April 24). West Virginia groundwater not affected by fracking, but surface water is [Press release]. Retrieved from <https://nicholas.duke.edu/about/news/west-virginia-groundwater-not-affected-fracking-surface-water>

years of a well's life and that spill reporting requirements differ markedly from state to state, making impossible the task of comparing states or creating a national picture.^{298, 299}

- January 31, 2017 – California is the only state that allows fracking waste to be held in unlined, open pits, creating risks for groundwater contamination. A California Water Boards investigation found that, as of January 2017, 1,000 such pits were operational, with 400 lacking required state permits. The vast majority is located in Kern County.³⁰⁰
- December 14, 2016 – To better understand the impact of fracking fluid spills on aquatic animals, scientists at the University of Alberta exposed rainbow trout in laboratory tanks to various dilutions of fracking fluids. Even at very low exposures, the fish experienced adverse effects, including alterations in liver functioning and disruption of hormonal pathways. [This study was partially funded by industry.]³⁰¹
- December 13, 2016 – The final version of the EPA's six-year, \$29 million study on the impacts of hydraulic fracturing on the nation's drinking water confirmed that fracking activities have caused contamination of water resources in the United States, and it traced the various routes by which drinking water can be impacted by fracking. Documented cases of drinking water contamination have resulted from spills of fracking fluid and fracking wastewater; discharge of fracking waste into rivers and streams; and underground migration of fracking chemicals, including gas, into drinking water wells. Depletion of aquifers caused by water withdrawals has created other impacts.^{302, 303, 304, 305} The final EPA report detailed the problem of fracking-related drinking water contamination in three communities—Pavillion, Wyoming; Dimock, Pennsylvania; and

²⁹⁸ Patterson, L., Konschnik, K., Wiseman, H., Fargione, J., Maloney, K. O., Kiesecker, J., ... Saiers, J. E. (2017). Unconventional oil and gas spills: Risks, mitigation priorities and states reporting requirements. *Environmental Science & Technology*, 51(5), 2563–2573. doi: 10.1021/acs.est.05749

²⁹⁹ Kusnetz, N. (2017, February 21). Fracking well spills poorly reported in most top-producing states, study finds. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/21022017/fracking-spills-north-dakota-colorado>

³⁰⁰ California Water Boards. (2017, January 31). *Produced water pond status report*. Retrieved from https://www.waterboards.ca.gov/water_issues/programs/groundwater/sb4/docs/pond_rpt_0117_fnl.pdf

³⁰¹ He, Y., Folkerts, E. J., Zhang, Y., Martin, J. W. Alessi, D. S., & Goss, G. G. (2017). Effects on biotransformation, oxidative stress, and endocrine disruption in rainbow trout (*Oncorhynchus mykiss*) exposed to hydraulic fracturing flowback and produced water. *Environmental Science & Technology*, 51(2), 940-947. doi: 10.1021/acs.est.6b04695

³⁰² U.S. EPA. (2016). *Hydraulic fracturing for oil and gas: Impacts from the hydraulic fracturing water cycle on drinking water resources in the United States*. U.S. Environmental Protection Agency, Washington, DC, EPA-600-R-16-236Fa. Retrieved from <https://www.epa.gov/hfstudy>

³⁰³ U.S. EPA. (2016). *Hydraulic fracturing for oil and gas: Impacts from the hydraulic fracturing water cycle on drinking water resources in the United States* (Appendices). U.S. Environmental Protection Agency, Washington, DC, EPA-600-R-16-236Fb. Retrieved from <https://www.epa.gov/hfstudy>

³⁰⁴ U.S. EPA. (2016). *Hydraulic fracturing for oil and gas: Impacts from the hydraulic fracturing water cycle on drinking water resources in the United States* (Executive Summary). U.S. Environmental Protection Agency, Washington, DC, EPA-600-R-16-236ES. Retrieved from <https://www.epa.gov/hfstudy>

³⁰⁵ Tong, S., & Scheck, T. (30 November, 2016). EPA's late changes to fracking study downplay risk of drinking water pollution. *Marketplace.org*. Retrieved from <https://www.marketplace.org/2016/11/29/world/epa-s-late-changes-fracking-study-portray-lower-pollution-risk>

Parker County, Texas.³⁰⁶ Summing up the report, then-EPA Deputy Administrator Tom Burke said in a statement to *American Public Media*, “We found scientific evidence of impacts to drinking water resources at each stage of the hydraulic fracturing cycle.”³⁰⁷ (See also the entry for June 5, 2015, which describes the contents of the 2015 draft report.)

- December 1, 2016 – According to a review paper that examines the potential environmental impacts of oil and gas wastewater, about 5 percent of fracking waste is accidentally or illegally spilled. Almost all of the rest is transported off site and injected into disposal wells that are drilled into porous geological formations. In North Dakota’s Bakken Shale, disposal wells are located within miles of the well pad, and the wastewater can travel there via pipeline. In Pennsylvania’s Marcellus Shale, drilling activity exceeds the capacity for disposal of waste in local wells and must be trucked out of state.³⁰⁸
- November 4, 2016 – A critical review of potential routes of water contamination from drilling and fracking operations in the Bakken Shale noted that the high salinity of fracking wastewater minimizes its recycling options and thus contributes to the need for disposal wells. Transportation of large volumes of waste to these wells, via truck or pipeline, presents opportunities for large spills that can threaten groundwater.³⁰⁹
- October 16, 2016 – A team of scientists led by researchers at the Lawrence Berkeley National Laboratory evaluated chemicals used for fracking in California oil fields. Chemical additives included a wide variety of solvents in large amounts, as well as other toxic substances, including biocides and corrosion inhibitors.³¹⁰
- October 14, 2016 – One of the first studies to investigate the impacts of fracking on the ecology of streams found that fracking “has the potential to alter aquatic biodiversity and methyl mercury concentrations at the base of food webs.” The researchers sampled 27 remote streams in the Marcellus Shale basin of Pennsylvania where drilling and fracking is taking place. They showed that methyl mercury levels in stream sites where fracking occurs were driven upwards by higher acidity and lower numbers of macroinvertebrates. In streams with the highest numbers of fracking fluid spills, “fish diversity was nil,” and

³⁰⁶ U.S. Environmental Protection Agency Science Advisory Board. (2016, August 11). *SAB review of the EPA’s draft assessment of the potential impacts of hydraulic fracturing for oil and gas on drinking water resources*. EPA-SAB-16-005. Retrieved from [https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebReportsLastMonthBOARD/BB6910FEC10C01A18525800C00647104/\\$File/EPA-SAB-16-005+Unsigned.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebReportsLastMonthBOARD/BB6910FEC10C01A18525800C00647104/$File/EPA-SAB-16-005+Unsigned.pdf)

³⁰⁷ Scheck, T. & Tong, S. (2016, December 13). EPA reverses course, highlights fracking contamination of drinking water. *APM Reports*. Retrieved from <https://www.apmreports.org/story/2016/12/13/epa-fracking-contamination-drinking-water>

³⁰⁸ Konkel, L. (2016). Salting the earth: The environmental impact of oil and gas wastewater spills. *Environmental Health Perspectives*, 124(12), A230-A235. doi: 10.1289/ehp.124-A230

³⁰⁹ Shrestha, N., Chilkoor, G., Wilder, J., Gadhamshetty, V., & Stone, J. J. (2016). Potential water resource impacts of hydraulic fracturing from unconventional oil production in the Bakken shale. *Water Research*, 108, 1-24. doi: 10.1016/j.watres.2016.11.006

³¹⁰ Stringfellow, W. T., Camarillo, M. K., Domen, J. K., Sandelin, W. L., Varadharajan, C., Jordan, P. D., & ... Birkholzer, J. T. (2017). Identifying chemicals of concern in hydraulic fracturing fluids used for oil production *Environmental Pollution*, 220, Part A, 413-420. doi: 10.1016/j.envpol.2016.09.082

in some cases, there were no fish at all, including in streams previously classified as high-quality brook trout habitat. “Fracking and flowback fluids can contain various highly acidic agents, organic and inorganic compounds, and even Hg [mercury]. The flowback fluids can reach nearby streams through leaking wastewater hoses, impoundments, and lateral seepage and blowouts, as well as by backflow into the wellhead. Flowback water reaching streams can . . . decrease aquatic biodiversity. . . . Lowered stream pH increases Hg solubility, leading to increased bioaccumulation in food webs.”³¹¹

- October 13, 2016 – Researchers at Pennsylvania State University and Ohio State University combined GIS data on drilling and fracking activities in Pennsylvania and Ohio with household data on bottled water purchases. They found that yearly household purchases of bottled water increased as local drilling and fracking intensity increased. This “averting behavior” is a measure of perceived risk. In 2010, averting-behavior expenditures in the form of bottle water purchases by people living in Pennsylvania’s shale counties totaled \$19 million.³¹² (A subsequent study suggests that those engaged in tapwater averting behaviors in Pennsylvania have evidence-based reasons to be concerned. See entry above, for May 1, 2017.)
- September 22, 2016 – Using the agency’s list of 1076 chemicals that have reported use as ingredients in hydraulic fracturing fluid, EPA scientists developed a framework to analyze and rank subsets of chemicals in order to better understand which fracking-related chemicals pose the greatest risk to drinking water. Their model collates multiple lines of evidence. For example, data on inherent toxicity are combined with data on occurrence and propensity for environmental transport. In the absence of local data on actual human exposures, this model can serve as a qualitative metric to “identify chemicals that may be more likely than others to impact drinking water resources.”³¹³
- September 16, 2016 – A reconnaissance analysis of groundwater in the Eagle Ford Shale region in southern Texas found sporadic detections of multiple VOCs and dissolved gas, providing evidence that “groundwater quality is potentially being affected by neighboring [drilling and fracking] activity, or other anthropogenic activities, in an episodic fashion.” The authors called for a more extensive investigation of possible groundwater contamination in the Eagle Ford basin.^{314, 315}

³¹¹ Grant, C. J., Lutz, A. K., Kulig, A. D., & Stanton, M. R. (2016). Fracked ecology: Response of aquatic trophic structure and mercury biomagnification dynamics in the Marcellus Shale Formation. *Ecotoxicology*, 25, 1739–1750. doi: 10.1007/s10646-016-1717-8

³¹² Wrenn, D. H., Klaiber, H. A., & Jaenicke, E. C. (2016). Unconventional shale gas development, risk perceptions, and averting behavior: evidence from bottled water purchases. *Journal of the Association of Environmental and Resource Economists*, 3(4), 770-817. doi: 10.1086/688487

³¹³ Yost, E. E., Stanek, J., & Burgoon, L. D. (2016). A decision analysis framework for estimating the potential hazards for drinking water resources of chemicals used in hydraulic fracturing fluids. *Science of the Total Environment*, 574, 1544–1558. doi: 10.1016/j.scitotenv.2016.08.167

³¹⁴ Hildenbrand, Z. L., Carlton Jr., D. D., Meik, J. M., Taylor, J. T., Fontenot, B. E., Walton, J. L., . . . Schug, K. A. (2016). A reconnaissance analysis of groundwater quality in the Eagle Ford shale region reveals two distinct bromide/chloride populations. *Science of the Total Environment*, 575, 672–680. doi: 10.1016/j.scitotenv.2016.09.070

³¹⁵ Hildenbrand, Z. L., Carlton Jr., D. D., Meik, J. M., Taylor, J. T., Fontenot, B. E., Walton, J. L., . . . Schug, K. A. (2017). Corrigendum to “A reconnaissance analysis of groundwater quality in the Eagle Ford shale region reveals

- July 11, 2016 – An interdisciplinary team led by University of Colorado researchers found methane in 42 water wells in the intensely drilled Denver-Julesburg Basin where high volume, horizontal fracking operations began in 2010. By examining isotopes and gas molecular ratios, the researchers determined that the gas contaminating these wells was thermogenic in origin, rather than microbial, and therefore had migrated up into the groundwater from underlying oil- and gas-containing shale. The steady rate of well contamination over time—two cases per year from 2001 to 2014—suggests that well failures, rather than the process of hydraulic fracturing itself, was the mechanism that created migration pathways for the stray gas to reach drinking water sources. Of the 42 affected wells, 11 had already been identified by state regulators as suffering from “barrier failures.”³¹⁶ Duke University geochemist Avner Vengosh, who was not an author of the paper, commented on the study in an accompanying article in *InsideClimate News*: “The bottom line here is that industry has denied any stray gas contamination: that whenever we have methane in a well, it is always preexisting. The merit of this is that it’s a different oil and gas basin, a different approach, and it’s saying that stray gas could happen.” In this same article, *InsideClimate News* reported that national standards for well construction do not exist, nor are there laws governing the type of cement that is used to seal the wellbore and prevent leaks.³¹⁷
- May 24, 2016 – ATSDR conducted a public health evaluation using groundwater data gathered in 2012 by the EPA from 64 private drinking water wells in Dimock, Pennsylvania where natural gas drilling and fracking activities began in 2008 and where residents began reporting problems with their water shortly thereafter. The agency found that water samples collected from 27 Dimock wells contained contaminants “at levels high enough to affect human health.” These included methane, salts, organic chemicals, and arsenic. In 17 wells, levels of methane were high enough to create risk of fire or explosion.³¹⁸ Methane levels were not assessed in wells prior to the start of fracking activities in the area. Hence, the study is limited by lack of pre-drilling baseline data, and investigators did not attempt to determine the source of the contaminants. However, in its focus on identifying health impacts, ATSDR’s evaluation is a more comprehensive study than that conducted four years earlier by the EPA and calls into question its earlier, more reassuring conclusions.^{319, 320}

two distinct bromide/chloride populations.” *Science of the Total Environment*, 603–604, 834-835. doi: 10.1016/j.scitotenv.2017.05.200

³¹⁶ Sherwood, O. A., Rogers, J. D., Lackey, G., Burke, T. L., Osborn, S. G. & Ryan, J. N. (2016). Groundwater methane in relation to oil and gas development and shallow coal seams in the Denver-Julesburg Basin of Colorado. *Proceedings of the National Academy of Sciences* 113(30). doi: 10.1073/pnas.1523267113

³¹⁷ Banerjee, N. (2016, July 11). Colorado fracking study blames faulty wells for contamination. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/11072016/water-contamination-near-colorado-fracking-tied-well-failures>

³¹⁸ U.S. Agency for Toxic Substances and Disease Registry (2016, May 24). *Health Consultation: Dimock Groundwater Site*. Retrieved from

http://www.atsdr.cdc.gov/hac/pha/DimockGroundwaterSite/Dimock_Groundwater_Site_HC_05-24-2016_508.pdf

³¹⁹ Lustgarten, A. (2016, June 9). Federal report appears to undercut EPA assurances on water safety in Pennsylvania. *ProPublica*. Retrieved from <https://www.propublica.org/article/federal-report-appears-to-undercut-epa-assurances-water-safety-pennsylvania>

- May 9, 2016 – Sampling downstream of a fracking wastewater disposal facility in West Virginia, a USGS team documented changes in microbial communities and found evidence indicating the presence of fracking waste in water and sediment samples collected from Wolf Creek in West Virginia. Specifically, the researchers documented increased concentrations of barium, bromide, calcium, sodium, lithium, strontium, iron, and radium downstream of the disposal well.³²¹ In a *Washington Post* story about this study, lead author Denise Akob said that the key take-away message “is really that we’re demonstrating that facilities like this can have an environmental impact.”³²² (This study was done in collaboration with Susan Nagel’s team, which studied endocrine-disrupting activity in this same stream. See entry below for April 6, 2016.)
- April 30, 2016 – As part of an investigation based on aerial photographs taken by emergency responders during spring 2016 flooding, the *El Paso Times* documented plumes and sheens of chemicals from tipped-over storage tanks and inundated oil wells and fracking sites entering rivers and streams. “Many of the photos shot during Texas’ recent floods show swamped wastewater ponds at fracking sites, presumably allowing wastewater to escape into the environment—and potentially into drinking-water supplies.”³²³
- April 27, 2016 – Using geochemical and isotopic tracers to identify the unique chemical fingerprint of Bakken region brines, a Duke University study found that accidental spills of fracking wastewater have contaminated surface water and soils throughout North Dakota where more than 9,700 wells have been drilled in the past decade. Contaminants included salts as well as lead, selenium, and vanadium. In the polluted streams, levels of contaminants often exceeded federal drinking water guidelines. Soils at spill sites showed elevated levels of radium.³²⁴ The study concluded that “inorganic contamination associated with brine spills in North Dakota is remarkably persistent, with elevated levels of contaminants observed in spill sites up to 4 years following the spill events.” In a comment about this study, lead author and Duke University geochemist Avner Vengosh said, “Until now, research in many regions of the nation has shown that contamination from fracking has been fairly sporadic and inconsistent. In North Dakota, however, we

³²⁰ U.S. Environmental Protection Agency. (2012, July 25). *EPA completes drinking water sampling in Dimock, Pa.* [Press release]. Retrieved from

<https://yosemite.epa.gov/opa/admpress.nsf/0/1A6E49D193E1007585257A46005B61AD>

³²¹ Akob, D. M., Mumford, A. C., Orem, W. H., Engle, M. A., Klinges, J. G., Kent, D. B., & Cozzarelli, I. M. (2016). Wastewater disposal from unconventional oil and gas development degrades stream quality at a West Virginia injection facility. *Environmental Science and Technology*, 50(11). doi: 10.1021/acs.est.6b00428

³²² Fears, D. (2016, May 11). This mystery was solved: scientists say chemicals from fracking wastewater can taint fresh water nearby. *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/energy-environment/wp/2016/05/11/this-mystery-was-solved-scientists-say-chemicals-from-fracking-wastewater-can-taint-fresh-water-nearby/?utm_term=.c27045b60338

³²³ Schladen, M. (2016, April 30). Flooding sweeps oil, chemicals into rivers. *El Paso Times*. Retrieved from <http://www.elpasotimes.com/story/news/2016/04/30/flooding-sweeps-oil-chemicals-into-rivers/83671348/>

³²⁴ Lauer, N. E., Harkness, J. S., & Vengosh A. (2016). Brine spills associated with unconventional oil development in North Dakota. *Environmental Science & Technology*, 50(10). doi: 10.1021/acs.est.5b06349

find it is widespread and persistent, with clear evidence of direct water contamination from fracking.”³²⁵

- April 6, 2016 – A research team led by Susan Nagel at the University of Missouri traced a spike in endocrine-disrupting activity in a West Virginia stream, Wolf Creek, to an upstream facility that stores fracking wastewater. Levels detected downstream of the waste facility were above levels known to create adverse health effects and alter the development of fish, amphibians, and other aquatic organisms. Endocrine-disrupting compounds were not elevated in upstream sections of the creek.^{326, 327} (See also entry for May 9, 2016 above.)
- March 29, 2016 – A study by Stanford University scientists determined that fracking and related oil and gas operations have indeed contaminated drinking water in the town of Pavillion, Wyoming where residents have long complained about foul-tasting water. The researchers found substances in the water that match those used in local fracking operations or found in nearby pits used for the disposal of drilling waste. Chemical contaminants included benzene, a known carcinogen, and toluene, a neurotoxicant. Possible mechanisms for contamination include defective cement well casings; spills and leaks from disposal pits; and underground migration of chemicals into aquifers from the fracked zone, which, in this area, is quite shallow. Also, in the Pavillion area, operators sometimes fracked directly into underground sources of water.³²⁸ One of the authors of this study, Dominic DiGiulio, was also a lead scientist on the EPA’s earlier aborted investigation of Pavillion’s drinking water. (See entry for December 6, 2015 below.) In an interview about his new research, DiGiulio said that his findings raise concerns about similar water pollution in other heavily fracked regions. “Pavillion isn’t geologically unique in the West, and I’m concerned about the Rocky Mountain region of the U.S. The impact on [underground drinking water sources] could be fairly extensive. Pavillion is like a canary in a coal mine and we need to look at other fields.”³²⁹ Co-author Rob Jackson noted, “There are no rules that would stop a company from doing this anywhere else.”³³⁰

³²⁵ Nicholas School of the Environment, Duke University. (2016, April 27). *Contamination in North Dakota linked to fracking spills* [Press release]. Retrieved from <https://nicholas.duke.edu/about/news/ContaminationinNDLinkedtoFrackingSpills>

³²⁶ Kassotis, C. D., Iwanowicz, L. R., Akob, D. M., Cozzarelli, I. M., Mumford, A. C., Orem, W. H., & Nagel, S. C. (2016). Endocrine disrupting activities of surface water associated with West Virginia oil and gas industry wastewater disposal site. *Science of the Total Environment*, 557-558. doi: 10.1016/j.sci.tenv.2016.03.113

³²⁷ Bienkowski, B. (2016, April 6). In W. Virginia, frack wastewater may be messing with hormones. *Environmental Health News*. Retrieved from <http://www.environmentalhealthnews.org/ehs/news/2016/april/in-w.-virginia-frack-wastewater-may-be-messing-with-hormones>

³²⁸ DiGiulio, D. C. & Jackson, R. B. (2016). Impact to underground sources of drinking water and domestic wells from production well stimulation and completion practices in the Pavillion, Wyoming, Field. *Environmental Science & Technology*, 50(8). doi: 10.1021/acs.est.5b04970

³²⁹ Banerjee, N. (2016, March 29). Fracking study finds toxins in Wyoming town’s groundwater and raises broader concerns. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/29032016/fracking-study-pavillion-wyoming-drinking-water-contamination-epa>

³³⁰ Jordan, R. (2016, March 29). Stanford researchers show fracking’s impact to drinking water sources. *Stanford News*. Retrieved from <http://news.stanford.edu/2016/03/29/pavillion-fracking-water-032916/>

- February 22, 2016 – Relying on voluntary disclosures reported to the FracFocus registry and a list compiled by the U.S. Congress, a German team surveyed the physiochemical properties of chemicals used in hydraulic fracturing fluid to evaluate their environmental fate and potential toxicity. Common ingredients included those known to contaminate groundwater, such as solvents, as well as those known to react strongly with other chemicals, such as biocides and strong oxidants, indicating that almost certainly, new chemical products are formed during the process of fracking and its aftermath. Hence, non-toxic additives could potentially react with other substances to create harmful byproducts. The authors conclude that a comprehensive assessment of risks would require an unabridged list of the chemical additives used for fracking, and they call for full disclosure.^{331, 332}
- February 9, 2016 – An investigation of water contamination in the Barnett Shale by ABC-affiliate station WFAA in Dallas found numerous violations by operators who ignored regulations that require sealing vertical well pipes with a cement sheath to protect groundwater from stray gas and other vapors that might escape and migrate upwards into overlying aquifers. The WFAA report said that the Texas Railroad Commission, which oversees drilling and fracking operations in Texas, has failed to respond to alleged violations of a rule that requires cement seals around steel well casings in geological zones where drilling has penetrated layers of rock containing oil and gas deposits.³³³
- February 8, 2016 – An investigation by the *Columbus Dispatch* revealed that the amount of water that operators use for hydraulic fracturing in Ohio gas wells increased steadily from 2011 to 2015. The total amount of water increased, as did the volume of water used per well—from an average of 5.6 million gallons per well in 2011 to 7.6 million in 2014. The reason is that the horizontally drilled holes beneath each well have become longer, and these require more water during the fracking process.³³⁴
- February 2016 – In a lengthy account to Congress on the status of the underground waste injection well program that is overseen by the EPA, the U.S. Government Accountability Office (GAO) reported that the agency “has not consistently conducted oversight activities necessary to assess whether state and EPA-managed programs are protecting underground sources of drinking water” from contamination by fracking waste. Specifically, the GAO took the EPA to task for failure to require well-specific inspections, collect data on enforcement actions, review permitting requirements by state regulatory agencies, or analyze the resources the agency would need to do all the above to adequately oversee the Underground Injection Control program. The GAO noted that it

³³¹ Elsner, M., & Hoelzer, K. (2016). Quantitative survey and structural classification of hydraulic fracturing chemicals reported in unconventional gas production. *Environmental Science & Technology*, 50(7). doi:10.1021/acs.est.5b02818

³³² Phys.Org. (9 March 2016). How to get a handle on potential risks posed by fracking fluids. Retrieved from <http://phys.org/news/2016-03-potential-posed-fracking-fluids.html>

³³³ Shipp, B. (2016, February 9). Drilling records suggest lax state enforcement. WFAA, Dallas. Retrieved from <http://www.wfaa.com/mb/news/local/investigates/rules-ignored-water-fouled-in-barnett-shale/38337835>

³³⁴ Arenschiold, L. (2016, February 8). Drillers using more water to frack Ohio shale. *The Columbus Dispatch*. Retrieved from <http://www.dispatch.com/content/stories/local/2016/02/07/drillers-using-more-water-to-frack-ohio-shale.html>

had once before, in 2014, previously found the EPA negligent in its responsibilities to monitor drinking water sources for possible contamination with fracking waste.³³⁵ (See entry below for September 23, 2014.)

- January 6, 2016 – Yale School of Public Health researchers analyzed more than 1,021 chemicals either used in fracking fluid or created during the process of hydraulic fracturing. They found that 781 of these chemicals lacked basic toxicity data. Of the 240 that remained, 157 were reproductive or developmental toxicants. These included arsenic, benzene, cadmium, formaldehyde, lead, and mercury.³³⁶ Commenting on this study, lead author Nicole Deziel said, “This evaluation is a first step to prioritize the vast array of potential environmental contaminants from hydraulic fracturing for future exposure and health studies. Quantification of the potential exposure to these chemicals, such as by monitoring drinking water in people’s homes, is vital for understanding the public health impact of hydraulic fracturing.”³³⁷
- December 15, 2015 – A research team led by geologist Mukul Sharma from Dartmouth College discovered that chemical reactions between fracking fluid and rock can contribute to the toxicity of fracking wastewater. Specifically, the researchers found that fracking fluid can chemically react with the fractured shale in ways that cause barium, a toxic metal, to leach from clay minerals in the Marcellus Shale.^{338, 339}
- December 6, 2015 – The *Caspar Star Tribune* investigated the EPA’s decision to transfer its study of possible fracking-related drinking water contamination in Pavillion, Wyoming to a state agency in 2013. Preliminary data from the EPA suggested that drilling and fracking operations had contaminated drinking water supplies. To date, the state study has found no definitive link between drilling and water contamination. Interviews with officials and documents obtained under the Freedom of Information Act revealed that the EPA had bowed to political pressure from state officials and industry representatives and that Wyoming regulators narrowed the scope of the study considerably and conducted little fieldwork.³⁴⁰ (See also entry above for March 29, 2016.)

³³⁵ U.S. Government Accountability Office. (2016, February). *Drinking Water: EPA Needs to Collect Information and Consistently Conduct Activities to Protect Underground Sources of Drinking Water*. GAO-16-281. Retrieved from <http://gao.gov/assets/680/675439.pdf>

³³⁶ Elliot, E. G., Ettinger, A. S., Leaderer, B. P., Bracken, M. B., & Deziel, N. (2016). A systematic evaluation of chemicals in hydraulic-fracturing fluids and wastewater for reproductive and developmental toxicity. Advance online publication. *Journal of Exposure Science & Environmental Epidemiology*. doi: 10.1038/jes.2015.81

³³⁷ Greenwood, M. (2016, January 6). Toxins found in fracturing fluid and wastewater, study shows. *Yale News*. Retrieved from: <http://news.yale.edu/2016/01/06/toxins-found-fracturing-fluids-and-wastewater-study-shows>

³³⁸ Renock, D., Landis, J. D., & Sharma, M. (2016). Reductive weathering of black shale and release of barium during hydraulic fracturing. *Applied Geochemistry*, 65. doi: 10.1016/j.apgeochem.2015.11.001

³³⁹ Dartmouth College. (15 December 2015). Fracking plays active role in generating toxic metal wastewater, study finds. *Science Daily*. Retrieved from <https://www.sciencedaily.com/releases/2015/12/151215134653.htm>

³⁴⁰ Storrow, B. (2015, December 6). Pavillion today an EPA in retreat, a narrow state inquiry and no answers. *Caspar Star Tribune*. Retrieved from http://trib.com/business/energy/pavillion-today-an-epa-in-retreat-a-narrow-state-inquiry/article_403f84de-830c-5558-9f3f-ea48fd48d7ca.html?utm_medium=social&utm_source=facebook&utm_campaign=user-share

- November 19, 2015 – The Science Advisory Board (SAB) for the EPA reviewed the EPA’s June 2015 draft assessment of fracking’s impacts on drinking water, and challenged some of the summary statements that accompanied it, saying that they were over-generalized and not always aligned with the data in the report itself. Specifically, the SAB said, in a draft review, that the data cited by the report were too limited to support the headlined claim in the executive summary that drinking water impacts were neither “widespread” nor “systemic.” The SAB also critiqued the study for downplaying local impacts in its conclusions, noting that these impacts can sometimes be severe.³⁴¹
- October 19, 2015 – A six-month investigation by *Penn Live* found long-standing “systemic failures” on the part of the Pennsylvania Department of Environmental Protection (PA DEP) to enforce regulations governing drilling and fracking operations. Lack of oversight and reliance on industry self-policing have been the hallmarks of Marcellus Shale development for the past ten years, in violation of Pennsylvanians’ constitutional right to clean air and water. Among the findings of this investigation: chronically leaking wastewater impoundments for which no fines or notices were issued to the operator; laboratory coding systems designed to obscure possible detections of certain chemical contaminants in residents’ drinking water; and lack of inspections at well sites.³⁴²
- October 13, 2015 – An international team of researchers found detectable levels of multiple organic chemical contaminants in private drinking water wells in northeastern Pennsylvania where fracking is practiced. One of the compounds was a known additive of fracking fluid. Chemical fingerprinting and noble gas isotopes were used to determine if the contaminants most likely originated from surface spills at the well site or via upward transport from the shale itself. The organic pollutants found in the water did not contain chemical markers—certain elements and salts—that would indicate migration from deep geological strata. The authors concluded that “the data support a transport mechanism...to groundwater via accidental release of fracturing fluid chemicals derived from the surface rather than subsurface flow of these fluids from the underlying shale formation.”^{343, 344}
- September 23, 2015 – A team of researchers, examining how natural gas drilling and fracking operations across the nation affect creeks, streams and rivers, developed a predictive model and vulnerability index for surface water. They found that “all shale plays, regardless of location, had a suite of catchments that spanned highly degraded to

³⁴¹ Banerjee, N. (2015, November 19). EPA finding on fracking’s water pollution disputed by its own scientists. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/19112015/fracking-water-pollution-epa-study-natural-gas-drilling>

³⁴² Woodwell, C. (2016, October 19). Pa. regulators fail to protect environment during Marcellus Shale boom. *Penn Live*. Retrieved from http://www.pennlive.com/midstate/index.ssf/2015/10/state_regulators_fail_to_prote.html

³⁴³ Drollette, B. D., Hoelzer, K., Warner, N. R., Darrah, T. H., Karatum, O., O’Connor, M. P. . . . Plata, D. L. (2015). Elevated levels of diesel range organic compounds in groundwater near Marcellus gas operations are derived from surface activities. *Proceedings of the National Academy of Sciences*, 112(43). doi: 10.1073/pnas.1511474112

³⁴⁴ Drollette B. D. & Plata, D. A. (2015, October 13). Hydraulic fracturing components in Marcellus groundwater likely from surface operations, not wells. *Phys.Org*. Retrieved from <http://phys.org/news/2015-10-hydraulic-fracturing-components-marcellus-groundwater.html>

those that are less altered and naturally sensitive to alteration.” Surface water in Pennsylvania’s Marcellus Shale region is classified by this model as vulnerable to fracking-related impacts because of steep slopes and loose, erodible soils within the watersheds.³⁴⁵

- July 30, 2015 – As reported by the *Los Angeles Times*, unlined waste pits and hillside spraying of oil-field wastewater have contaminated groundwater in Kern County, California. Five of six monitoring wells in the 94-acre waste site showed high levels of salt, boron, and chloride, but it is not known how far and fast the contaminated plume has traveled.³⁴⁶
- July 21, 2015 – By surveying records for 44,000 wells fracked between 2010 and 2013, researchers from Stanford University, Duke University, and Ohio State University attempted a first-ever assessment of the range of depths at which fracking occurs across the United States. They found that many wells are shallower than widely presumed.³⁴⁷ As the authors noted, vertical fractures are able to propagate 2,000 feet upward, and hence, “shallow hydraulic fracturing often has greater potential risks of contamination than deeper hydraulic fracturing does.” This study showed that drinking water sources may be more vulnerable from upward migration of fracking contaminants than previously presumed. Surprisingly, the researchers found no strong relationship between depth and the volume of water and chemicals used for fracking. Many wells were both shallow and water-intensive, with significant variation in water use from state to state.³⁴⁸
- July 9, 2015 – A multi-volume report from the California Council of Science and Technology (CCST) found threats to groundwater in California from several parts of the fracking lifecycle, most notably from toxic wastewater. First, wastewater from California fracking operations is sometimes used for crop irrigation, in which case contaminants may seep from the surface of agricultural areas into groundwater. Second, nearly 60 percent of fracking wastewater in California is disposed of in unlined, open-air pits, a practice that is banned in almost all other states. There are 900 such waste disposal pits in the state, most of which are located in Kern County. Third, for many years, fracking wastewater in California has been mistakenly sent, via injection wells, directly into protected aquifers containing clean freshwater.³⁴⁹ California’s Division of Oil, Gas and Geothermal Resources allowed fracking wastes to be injected into aquifers that it

³⁴⁵ Entekin, S. A., Maloney, K. O., Kapo, K. E., Walters, A. W., Evan-White, M. A., & Klemow, K. M. (2015). Stream vulnerability to widespread and emergent stressors: a focus on unconventional oil and gas. *PLoS One*, 10(9). doi:10.1371/journal.pone.0137416

³⁴⁶ Cart, J. (2015, July 30). Central valley wastewater disposal to continue despite contamination. *Los Angeles Times*. Retrieved from <http://www.latimes.com/local/california/la-me-oil-waste-pits-20150731-story.html>

³⁴⁷ Jordon, R. (2015, July 21). *Shallow fracking raises questions for water, new Stanford research shows*. [Press release]. Retrieved from http://news.stanford.edu/news/2015/july/fracking_water-jackson-072115.html

³⁴⁸ Jackson, R. B., Lowry, E. R., Pickle, A., Kang, M., DiGiullo, D., & Zhao, K. (2015). The depths of hydraulic fracturing and accompanying water use across the United States. *Environmental Science & Technology*, 49(15). 8969–8976. doi: 10.1021/acs.est.5b01228

³⁴⁹ Shonkoff, S. B. C., Jordan, P., Hays, J., Stringfellow, W. T., Wettstein, Z. S., Harrison, R., Sandelin, W., & McKone, T. E. (2015, July 9). Volume II, Chapter 6: Potential impacts of well stimulation on human health in California. In: *An Independent Scientific Assessment of Well Stimulation in California*. California Council on Science and Technology, Sacramento, CA. Retrieved from <http://ccst.us/publications/2015/vol-II-chapter-6.pdf>

believed were exempt from the U.S. Safe Drinking Water Act. Conceding this mistake, the agency has shut down 23 injection wells for fracking waste disposal and established a two-year timetable for phasing out other wells injecting waste into aquifers that should have been protected.³⁵⁰ Fracking also threatens California's groundwater resources through water consumption, according to the CCST study. While this volume of water represents a small percentage of overall annual water consumption in California, fracking-related water use is, the study noted, disproportionately concentrated in areas of the state already suffering from water shortages. Further drawdowns of these aquifers may interfere with agricultural and municipal water needs.³⁵¹ In addition, because the oil-containing rock layers in California are located closer to the surface than in other states, the state's groundwater is potentially vulnerable to chemical contamination through vertical faults and fissures and via old and abandoned wells. The absence of evidence for direct contamination of groundwater by fracking, the study concluded, reflects absence of investigation rather than evidence of safety.³⁵²

- June 30, 2015 – The USGS released the first nationwide map of water usage for hydraulic fracturing. It shows wide geographic and temporal variation in the amount of water used to frack a single well. In general, gas wells consume more water per well (5.1 million gallons on average) than oil wells (4 million gallons). Median annual water volumes needed to frack a single horizontal oil or gas well increased dramatically—by a factor of 25 or more—between 2000 and 2014. A typical gas or oil well that is horizontally fracked now requires between six and eight Olympic-sized swimming pools of water. In 2014, the majority (58 percent) of new hydraulically fracked oil and gas wells were horizontally drilled. The watersheds where the most water was consumed for hydraulic fracturing are mostly located in southern or southwestern states and correspond to the following shale formations: the Eagle Ford and Barnett Shales in Texas; the Haynesville-Bossier Shale in Texas and Louisiana; the Fayetteville Shale in Arkansas; the Tuscaloosa Shale in Louisiana and Mississippi; and the Woodford Shale in Oklahoma. The Marcellus and Utica Shales—which underlie watersheds in parts of Ohio, Pennsylvania, West Virginia, and New York—were also in the top seven water-consuming shale plays in the United States.³⁵³
- June 26, 2015 – A decade-long USGS study of 11,000 public drinking water wells in California—nearly all the groundwater used for public supply—found high levels of potentially toxic contaminants in about 20 percent of the wells, affecting about 18 percent

³⁵⁰ Baker, D. R. (2015, July 16). U.S. likely to bar oil-waste dumping into 10 California aquifers. *San Francisco Chronicle*. Retrieved from <http://www.sfchronicle.com/business/article/U-S-likely-to-bar-oil-waste-dumping-into-10-6389677.php>

³⁵¹ Stringfellow, W. T., Cooley H., Varadharajan, C., Heberger, M., Reagan, M. T., Domen, J.K., . . . Houseworth, J. E. (2015, July 9). Volume II, Chapter 2: Impacts of well stimulation on water resources. In: *An Independent Scientific Assessment of Well Stimulation in California*. California Council on Science and Technology, Sacramento, CA. Retrieved from <http://ccst.us/publications/2015/vol-II-chapter-2.pdf>

³⁵² Long, J. C. S, Birkholzer, J. T., & Feinstein, L. C. (2015, July 9). Summary report. In: *An Independent Scientific Assessment of Well Stimulation in California*. California Council on Science and Technology, Sacramento, CA. Retrieved from: <http://ccst.us/publications/2015/2015SB4summary.pdf>

³⁵³ Gallegos, T. J., Varela, B. A., Haines, S. S., & Engle, M. A. (2015). Hydraulic fracturing water use variability in the United States and potential environmental implications. *Water Resources Research*. Accepted author manuscript. doi: 10.1002/2015WR017278

of the state's population.³⁵⁴ Although the study did not specifically investigate contaminants from oil and gas extraction, it does provide evidence for farm irrigation draining into groundwater, raising questions about the possible contamination of drinking water aquifers from the reuse of fracking wastewater for crop irrigation.³⁵⁵

- June 16, 2015 – A University of Texas research team documented widespread drinking water contamination throughout the heavily drilled Barnett Shale region in northern Texas. The study, which analyzed 550 water samples from public and private water wells, found elevated levels of 19 different hydrocarbon compounds associated with fracking (including the carcinogen benzene and the reproductive toxicant, toluene), detections of methanol and ethanol, and strikingly high levels of 10 different metals.³⁵⁶ “In the abstract, we can’t state that unconventional oil and gas techniques are responsible,” the lead author, Zachariah Hildenbrand, said in a media interview. “But when you get into areas where drilling is happening, you find more instances of contamination. It’s not coincidental. There are causes for concern.”³⁵⁷
- June 5, 2015 – The EPA’s long-awaited 600-page draft report on the potential impacts of fracking for drinking water resources confirmed specific instances of drinking water contamination linked to drilling and fracking activities. The report also identified potential mechanisms, both above and below ground, by which drinking water resources can be contaminated by fracking. In some cases, drinking water was contaminated by spills of fracking fluid and wastewater. In other cases, “[b]elow ground movement of fluids, including gas . . . have contaminated drinking water resources.” The EPA investigators documented 457 fracking-related spills over six years but acknowledged that they do not know how many more may have occurred. Of the total known spills, 300 reached an environmental receptor such as surface water or groundwater. The EPA also conceded that insufficient baseline drinking water data and a lack of long-term systematic studies limited the power of its findings. The EPA investigation confirmed a number of specific instances where these potential mechanisms did indeed lead to drinking water contamination. An assertion in the EPA’s accompanying press release that it had not found “widespread, systemic impacts to drinking water resources” was quoted out of context by many media sources as proof that fracking poses little threat to drinking water. To the contrary, this report confirmed that drilling and fracking activities have contaminated drinking water in some cases and acknowledged that it cannot ascertain

³⁵⁴ Belitz, K., Fram, M. S., & Johnson, T. D. (2015). Metrics for assessing the quality of groundwater used for public supply, CA, USA: equivalent-population and area. *Environmental Science & Technology*, 9(14), 8330–8338. doi: 10.1021/acs.est.5b00265

³⁵⁵ Knickmeyer E., & Smith, S. (2015, July 15). Study finds contaminants in California public-water supplies. *Associated Press*. Retrieved from <http://abcnews.go.com/Health/wireStory/study-finds-contaminants-california-public-water-supplies-32476456>

³⁵⁶ Hildenbrand, Z. L., Carlton, D. D., Fontenot, B. E., Meik, J. M., Walton, J.L., Taylor, J. T., . . . Schug, K.A. (2015). A comprehensive analysis of groundwater quality in the Barnett Shale region. *Environmental Science & Technology*, 49(13), 8254-8262. doi: 10.1021/acs.est.5b01526

³⁵⁷ McPhate, C. (2015, June 18). New study reveals potential contamination. *Denton Record-Chronicle*. Retrieved from <http://www.dentonrc.com/local-news/local-news-headlines/20150618-new-study-reveals-potential-contamination.ece>

how widespread the problem was due to insufficient data.³⁵⁸ EPA Science Advisor Thomas A. Burke later clarified that the report does not show that fracking is safe. Burke said, “That is not the message of this report. The message of this report is that we have identified vulnerabilities in the water system that are really important to know about and address to keep risks as low as possible.”³⁵⁹

- May 19, 2015 – A Pennsylvania State University research team documented the presence of a fracking-related solvent, 2-n-Butoxyethanol, in the drinking water from three homes in Bradford County, Pennsylvania, as part of an investigation of private drinking water wells near drilling and fracking operations that contained methane and foam. This finding represents the first fully documented case of a commonly used fracking chemical entering a drinking water source. “The most likely explanation of the incident is that stray natural gas and drilling or [hydrofracking] compounds were driven ~1-3 km along shallow to intermediate depth fractures to the aquifer used as a potable water source.”³⁶⁰ In an accompanying *New York Times* story, lead author Susan Brantley described the geology in northern Pennsylvania “as being similar to a layer cake with numerous layers that extend down thousands of feet to the Marcellus Shale. The vertical fractures are like knife cuts through the layers. They can extend deep underground, and can act like superhighways for escaped gas and liquids from drill wells to travel along, for distances greater than a mile away.”³⁶¹
- May 15, 2015 – A research team from the University of Colorado Boulder and California State Polytechnic Institute developed a model for identifying which fracking fluid chemicals are most likely to contaminate drinking water. Of 996 fracking fluid compounds known to be in use, researchers screened 659 of them for their ability to persist, migrate, and reach groundwater aquifers over a short time scale. Of the fifteen compounds so identified, two were commonly used in fracking operations: naphthalene and 2-butoxyethanol. Both are ingredients in surfactants and corrosion inhibitors. The authors noted that 2-butoxyethanol has been detected in drinking water in a heavily fracked area of Pennsylvania. Exposure to 2-butoxyethanol has been linked to birth defects in animals. Naphthalene is a possible human carcinogen that is toxic to red blood cells and contributes to kidney and liver damage. Researchers did not consider the impact of mixtures, interactions between contaminants, or chemical transformations during the fracking or flowback process and noted, “the need for data on the degradation of many

³⁵⁸ U.S. EPA. (2015). *Assessment of the potential impacts of hydraulic fracturing for oil and gas on drinking water resources* (External review draft). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-15/047, 2015. Retrieved from <http://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=244651>

³⁵⁹ Ward Jr., K. (2015, June 7). EPA says new study doesn't show fracking is safe. *Charleston Gazette*. Retrieved from <http://www.wvgazette.com/article/20150607/GZ01/150609432>

³⁶⁰ Llewellyn, G. T., Dorman, F., Westland, J. L., Yoxtheimer, D., Grieve, P. Sowers, T., . . . Brantley, S. L. (2015). Evaluating a groundwater supply contamination incident attributed to Marcellus Shale gas development. *Proceedings of the National Academies of Science*, 112, 6325-30. doi: 10.1073/pnas.1420279112/-/DCSupplemental

³⁶¹ St. Fleur, N. (2015, May 4). Fracking chemicals detected in Pennsylvania drinking water. *The New York Times*. Retrieved from http://www.nytimes.com/2015/05/05/science/earth/fracking-chemicals-detected-in-pennsylvania-drinking-water.html?_r=0#addendums

compounds used in fracturing fluids under conditions relevant for groundwater transport.”³⁶²

- May 7, 2015 – A survey of streams in Arkansas, led by the University of Central Arkansas, found alterations in macroinvertebrate communities to be related to drilling and fracking operations in the Fayetteville Shale. Fracking activity near streams was associated with greater sediment and more chlorophyll. “This study suggests that land disturbance from gas development affected stream communities.”³⁶³
- April 20, 2015 – A USGS team analyzed water brought to the surface during natural gas extraction at 13 fracked wells in northern Pennsylvania. They found large variability in the VOCs and microorganisms in the water samples from different wells. Organic chemical contaminants included benzene, toluene, and perchloroethylene, chloroform, and methylene chloride. The presence of microbes was associated with concentrations of benzene and acetate. Despite the addition of biocides during the fracking process, hydrogen sulfide-producing bacteria were present at culturable levels, along with methanogenic and fermenting bacteria. The source of these microorganisms was not determined. “Therefore, we cannot exclude the possibility that these microorganisms are native to the shale formation and reactivated by [hydrofracking] activities, as their physiology does not indicate a terrestrial surficial source.”³⁶⁴
- April 8, 2015 – A University of Colorado Boulder research team’s analysis of the organic chemicals found in liquid waste that flowed out of gas wells in Colorado after they had been fracked revealed the presence of many fracking fluid additives, including biocides, which are potentially harmful if they leak into groundwater. According to the authors, treatment of fracking wastewater must include aeration, precipitation, disinfection, a biological treatment to remove dissolved organic matter, and reverse osmosis desalination in order for it to be appropriate for non-fracking uses, such as crop irrigation.³⁶⁵
- March 18, 2015 – Using a new stream-based monitoring method, a team of scientists with USGS, Pennsylvania State University, and University of Utah found elevated levels of methane in groundwater discharging into a stream near drilling and fracking operations in Pennsylvania. In this same area, several private water wells contained high levels of methane as a result of gas migration near a gas well with a defective casing. The

³⁶² Rogers, J. D., Burke, T. L., Osborn, S. G., & Ryan, J. N. (2015). A framework for identifying organic compounds of concern in hydraulic fracturing fluids based on their mobility and persistence in groundwater. *Environmental Science & Technology Letters*, 2, 158-64.

³⁶³ Johnson, E., Austin, B. J., Inlander, E., Gallipeau, C., Evans-White, M. A., & Entekin, S. (2015). Stream macroinvertebrate communities across a gradient of natural gas development in the Fayetteville Shale. *Science of the Total Environment*, 530-531, 323-32. doi: 10.1016/j.scitotenv.2015.05.027

³⁶⁴ Akob, D. M., Cozzarelli, I. M., Dunlap, D. S., Rowan, E. L., & Lorah, M. M. (2015). Organic and inorganic composition and microbiology of produced waters from Pennsylvania shale gas wells. *Applied Geochemistry*, in press, corrected proofs online April 20. doi: 10.1016/j.apgeochem.2015.04.011

³⁶⁵ Lester, Y., Ferrer, I., Thurman, E. M., Sitterley, K. A., Korak, J. A., Aiken, G., & Linden, K. G. (2015). Characterization of hydraulic fracturing flowback water in Colorado: Implications for water treatment. *Science of the Total Environment*, 512-513, 637-644. doi: 10.1016/j.scitotenv.2015.01.043

monitoring technique used by the scientists allowed them to demonstrate that the source of the methane was shale gas from the Middle Devonian period, which is the kind of gas found in the Marcellus Shale.³⁶⁶ Researcher Susan Brantley said, “I found it compelling that using this new method for a reconnaissance of just 15 streams in Pennsylvania, we discovered one instance of natural gas entering the stream, perhaps from a nearby leaking shale gas well.”³⁶⁷

- March 12, 2015 – A team led by geologist Donald Siegel of Syracuse University found no relationship between methane levels in drinking water wells and proximity to oil or gas wells in a heavily fracked area of northeastern Pennsylvania.³⁶⁸ However, Siegel failed to reveal in his paper — as is required by the journal — that he had received industry funding from the Chesapeake Energy Corporation. Subsequently, the journal published a lengthy correction that revealed that Chesapeake had not only privately funded the lead author but had provided the baseline groundwater data set. A second author was revealed to be a former employee of Chesapeake, and another had worked as a consultant in the energy sector.³⁶⁹
- March 3, 2015 – A Duquesne University study of private drinking water wells in an intensely drilled southwestern Pennsylvania community compared pre-drill and post-drill data on water quality and found changes in water chemistry that coincided with the advent of drilling and fracking activities. Levels of chloride, iron, barium, strontium, and manganese were elevated. In some cases, concentrations exceeded health-based maximum contaminant levels. Methane was detected in most houses tested. Surveys of residents revealed widespread complaints about changes in water quality that began after drilling and fracking operations commenced. Violation records from the PA DEP uncovered possible pathways for water contamination. The researchers concluded that alterations of local hydrology caused by the injection of large volumes of hydraulic fracturing fluids may have mobilized contaminants left over from legacy oil, gas, and mining operations as well as opened pathways for the migration of fracking fluids themselves.³⁷⁰

³⁶⁶ Heilweil, V. M., Grieve, P. L., Hynek, S. A., Brantley, S. L., Solomon, D. K., & Risser, D. W. (2015). Stream measurements locate thermogenic methane fluxes in groundwater discharge in an area of shale-gas development. *Environmental Science & Technology*, 49, 4057-4065. doi: 10.1021/es503882b

³⁶⁷ U.S. Geological Survey. (2015, April 1). New stream monitoring method locates elevated groundwater methane in shale-gas development area. Retrieved from http://www.usgs.gov/newsroom/article.asp?ID=4176&from=rss&utm_source=dlvr.it&utm_medium=facebookhttp://www.readcube.com/articles/10.1002%2F2014WR016382?r3_referer=wol&tracking_action=preview_click&show_checkout=1&purchase_site_license=LICENSE_DENIED_NO_CUSTOMER#.VaPKNYsqdyA

³⁶⁸ Siegel, D. I., Azzolina, N. A., Smith, B. J., Perry, A. E., & Bothun, R. L. (2015). Methane concentrations in water wells unrelated to proximity to existing oil and gas wells in northeastern Pennsylvania. *Environmental Science & Technology*, 49, 4106-12. doi: 10.1021/es505775c

³⁶⁹ Siegel, D. I., Azzolina, N. A., Smith, B. J., Perry, A. E., & Bothun, R. L. (2015). Correction to Methane concentrations in water wells unrelated to proximity to existing oil and gas wells in northeastern Pennsylvania. *Environmental Science & Technology*, 49, 4106-12. doi: 10.1021/es505775c

³⁷⁰ Alawattagama, S. K., Kondratyuk, T., Krynock, R., Bricker, M., Rutter, J. K., Bain, D. J., & Stolz, J. F. (2015). Well water contamination in a rural community in southwestern Pennsylvania near unconventional shale gas extraction. *Journal of Environmental Science and Health, Part A: Toxic/Hazardous Substances and Environmental Engineering*, 50, 516-528. doi: 10.1080/10934529.2015.992684

- March 3, 2015 – A research team from Duquesne University reviewed the evidence for environmental impacts to air and water from activities related to shale gas extraction in Pennsylvania and explored potential mechanisms for contamination of air and water related to the drilling and fracking process itself. Among them: deformations of the shale bedrock caused by the injection of large volumes of fluid result in “pressure bulbs” that are translated through rock layers and can impact faults and fissures, so affecting groundwater.³⁷¹
- February 23, 2015 – The arrival of drilling and fracking activities coincided with an increase in salinity in a creek that drains public land in a semi-arid region of Wyoming, determined a USGS study. The dissolved minerals associated with the rise in salinity matched those found in native soil salts, suggesting that disturbance of naturally salt-rich soils by ongoing oil and gas activities, including pipeline, road, and well pad construction, was the culprit. “As [shale gas and oil] development continues to expand in semiarid lands worldwide, the potential for soil disturbance to increase stream salinity should be considered, particularly where soils host substantial quantities of native salts.”³⁷²
- February 14, 2015 – A review by a *Dickinson Press* news reporter of disposal well files and more than 2,090 mechanical integrity tests revealed that North Dakota frack waste injection wells were often leaky and that state regulators continued to allow fluid injection into wells with documented structural problems even though the wells did not meet EPA guidelines for wellbore integrity. Officials with the North Dakota Division of Oil and Gas said they had primary enforcement responsibilities and that EPA guidance did not apply to these wells. The investigation noted, “... a review of state and federal documents, as well as interviews with geologists, engineers, environmental policy experts and lawyers who have litigated under the Safe Drinking Water Act, suggests the agency is loosely interpreting guidance and protocols that are meant to maintain the multiple layers of protection that separate aquifers from the toxic saltwater.” *The Dickinson Press* is the daily newspaper for Stark County in southwest North Dakota.³⁷³
- February 11, 2015 – The *Los Angeles Times* analyzed self-reported testing results on fracking wastewater that California drillers were required to submit to the state. Samples of wastewater collected from 329 fracked oil wells found that virtually all—98 percent—contained benzene at levels that exceeded standards for permissible concentrations in drinking water. This finding likely underrepresents the extent of the problem, according

³⁷¹ Lampe, D. J., & Stolz, J. F. (2015). Current perspectives on unconventional shale gas extraction in the Appalachian Basin. *Journal of Environmental Science and Health, Part A: Toxic/Hazardous Substances and Environmental Engineering*, 50(5), 434-446. doi: 10.1080/10934529.2015.992653

³⁷² Bern, C. R., Clark, M. L., Schmidt, T. S., Nolloway, J. M., & McDougal, R. R. (2015). Soil disturbance as a driver of increased stream salinity in a semiarid watershed undergoing energy development. *Journal of Hydrology*, 524, 123-136. doi: doi.org/10.1016/j.jhydrol.2015.02.020

³⁷³ Brown, A. (2015, February 14). Lacking integrity? State regulatory officials don't follow EPA guidance on saltwater disposal wells. *The Dickinson Press*. Retrieved from <http://www.thedickinsonpress.com/energy/bakken/3679507-lacking-integrity-state-regulatory-officials-dont-follow-epa-guidance>

to the newspaper investigation, because many operators failed to comply with reporting requirements. The discovery that fracking wastewater is high in benzene is particularly alarming in light of the admission by the state of California that it had inadvertently allowed frack waste disposal directly into aquifers containing clean water that could potentially be used for drinking. Those wells are now the subject of federal and state review.³⁷⁴

- February 1, 2015 – An investigation of the chemical make-up of fracking fluid found that the compositions of these mixtures vary widely according to region and company, making the process of identifying individual compounds difficult. Classes of hydrocarbon-based chemicals include solvents, gels, biocides, scale inhibitors, friction reducers, and surfactants. Chemical analysis identified around 25 percent of the organic compounds that are believed to be present in fracking fluid and that are necessary to test for in identifying groundwater and drinking water contamination.³⁷⁵ Dr. Imma Ferrer, lead author, explained in a *Science Daily* article about her research that “[b]efore we can assess the environmental impact of the fluid, we have to know what to look for.”³⁷⁶
- January 30, 2015 – A USGS review of national water quality databases found that insufficient data exist to understand the impact of fracking on drinking water.³⁷⁷ In a media interview, lead author Zack Bowen said, “There are not enough data available to be able to assess the potential effects of oil and gas development over larger geographic areas.”³⁷⁸
- January 21, 2015 – A team of researchers from the USGS and Virginia Tech University established that petroleum-based hydrocarbons can break down underground in ways that promote the leaching of naturally occurring arsenic into groundwater. Arsenic is a known human carcinogen that causes bladder, lung, and skin cancer. Elevated levels of arsenic in drinking water represent a public health threat.³⁷⁹ Researchers found that arsenic concentrations in a hydrocarbon plume can reach 23 times the current drinking water

³⁷⁴ Cart. J. (2015, February 11). High levels of benzene found in fracking waste water. *Los Angeles Times*. Retrieved from <http://www.latimes.com/local/california/la-me-fracking-20150211-story.html#page=1>

³⁷⁵ Ferrer, I., & Thurman, E.M. (2015), Chemical constituents and analytical approaches for hydraulic fracturing waters. *Trends in Environmental Analytical Chemistry*, 5, 18-25, doi: 10.1016/j.teac.2015.01.003

³⁷⁶ Elsevier. (2015 April 8). Fracking fluids contain potentially harmful compounds if leaked into groundwater. *ScienceDaily*. Retrieved from http://www.sciencedaily.com/releases/2015/04/150408090323.htm?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencedaily%2Fearth_climate%2Frecycling_and_waste+%28Recycling+and+Waste+News+-+

³⁷⁷ Bowen, Z. H., Oeisner, G. P., Cade, B., Gallegos, T. J., Farag, A. M., Mott, D. N., . . . Varela, B. A. (2015). Assessment of surface water chloride and conductivity trends in areas of unconventional oil and gas development—why existing national data sets cannot tell us what we would like to know. *Water Resources Research*, 51, 704-15. doi: 10.1002/2014WR016382

³⁷⁸ Phillips, S. (2015, March 3). USGS: fracking water quality data “scarce.” *StateImpact Pennsylvania*. Retrieved from <https://stateimpact.npr.org/pennsylvania/2015/03/03/usgs-fracking-water-quality-data-scarce/>

³⁷⁹ U.S. Geological Survey (2015, January. 26). Natural breakdown of petroleum underground can lace arsenic into groundwater. Retrieved from http://www.usgs.gov/newsroom/article.asp?ID=4110&from=rss&utm_source=dlvr.it&utm_medium=facebook#.VavGXIsqdyA

standard of 10 micrograms per liter. The authors of the study said that the metabolism of carbon-rich petroleum products by subterranean microbes is involved in a complex geochemical process that leads to mobilization of arsenic into aquifers.³⁸⁰

- January 14, 2015 – Researchers from Duke University, Dartmouth College, and Stanford University found high levels of iodide, bromide, and ammonium in samples of wastewater from fracking operations in both the Marcellus and Fayetteville Shales. These same chemicals were present when fracking wastewater was discharged into rivers and streams at three treatment sites in Pennsylvania and during an accidental spill in West Virginia. Iodide and bromide are known to create toxic disinfection byproducts when downstream water is subsequently chlorinated for drinking water. In water, ammonium can convert to ammonia, which is toxic to aquatic life. The authors noted that this is the first study to identify ammonium and iodide as widespread in fracking waste discharges.³⁸¹ In an interview with the *Pittsburgh Post-Gazette*, lead author Avner Vengosh said that the findings raise new concerns about the environmental and health impacts of wastewater from drilling and fracking operations.³⁸²
- November 27, 2014 – An interdisciplinary team of researchers found methane contamination in drinking water wells located in eight areas above the Marcellus Shale in Pennsylvania and the Barnett Shale in Texas, with evidence of declining water quality in the Barnett Shale area. By analyzing noble gases and their isotopes (helium, neon, argon), the investigators were able to isolate the origin of the fugitive methane in drinking water. The results implicate leaks through cement well casings as well as via naturally occurring cracks and fissures in the surrounding rock.³⁸³ In a related editorial, one of the study's authors, Robert Jackson, called on the EPA to reopen its aborted investigation into drinking water contamination in heavily fracked areas of Texas. Jackson also emphasized that methane migration through unseen cracks in the rock surrounding the wellbore “raises the interesting possibility that a drilling company could follow procedures — cementing and casing below the local aquifer — and still create a potential pathway for gas to migrate into drinking water.”³⁸⁴
- November 26, 2014 – A critical review of biocides in fracking fluid by a Colorado State team found that the fate of these chemicals underground is not known and their toxicity not well understood. While many biocides are short-lived, some may transform into more

³⁸⁰ Cozzarelli, I. M. Schreiber, M. D., Erickson, M. L., & Ziegler, B. A. (2015). Arsenic cycling in hydrocarbon plumes: secondary effects of natural attenuation. *Groundwater*. doi: 10.1111/gwat.12316

³⁸¹ Harkness, J. S., Dwyer, G. S., Warner, N. R., Parker, K. M., Mitch, W. A., & Vengosh, A. (2015). Iodide, bromide, and ammonium in hydraulic fracturing and oil and gas wastewaters: environmental implications. *Environmental Science & Technology*, 49, 1955-63. doi: 10.1021/es504654n

³⁸² Hopey, D. (2015, January 15). Study: high levels of pollutants from drilling waste found in Pa. rivers. *Pittsburgh Post-Gazette*. Retrieved from <http://powersource.post-gazette.com/powersource/latest-oil-and-gas/2015/01/14/Study-High-levels-of-pollutants-from-drilling-waste-found-in-Pennsylvania-rivers-shale/stories/201501140143>

³⁸³ Darrah, T. H., Vengosh, A., Jackson, R. B., Warner, N. R., & Poreda, R. J. (2014). Noble gases identify the mechanisms of fugitive gas contamination in drinking-water wells overlying the Marcellus and Barnett Shales. *Proceedings of the National Academy of Sciences*, 111 (39), 14076-14081. doi: 10.1073/pnas.1322107111

³⁸⁴ Jackson, R. (2014, December 1). Reopen Barnett Shale water probe. *The Texas Tribune*. Retrieved from <http://tribtalk.org/2014/12/01/reopen-barnett-shale-water-probe/>

toxic or persistent compounds. Among the most common chemical components of fracking fluid, biocides are used to inhibit the growth of deep-life microorganisms, including sulfate-reducing bacteria that contribute to corrosion of well casings and can form biofilms that prevent the upward flow of natural gas. Oxidizing biocides that are chlorine- or bromine-based can react with other fracking chemicals and may produce toxic halogenated byproducts. The authors noted biocides pose a unique risk for drinking water when fracking liquid waste is treated for discharge to surface water via sewage treatment plants. Sub-lethal concentrations may contribute to adaptation of surviving microorganisms and, hence, antibiotic resistance of pathogens. They cited particular concern over surface spills and well integrity issues associated with casing or cement failure.³⁸⁵

- November 3, 2014 – The West Virginia Department of Environmental Protection confirmed that three private drinking water wells were contaminated when Antero Resources mistakenly drilled into one of its own gas wells. Benzene, a human carcinogen, and toluene, a reproductive toxicant, were detected in the drinking water at concentrations four times the legal maximum limit. Additionally, a nearby abandoned gas well, a drinking water well, and an actively producing gas well were all pressurized as a result of the mishap and began exhibiting “artesian flow.”³⁸⁶
- October 22, 2014 – A follow-up to the August 2014 Environmental Integrity Project report describes an even greater potential public health threat from a loophole in the Safe Drinking Water Act, wherein companies are allowed to inject other petroleum products (beyond diesel) without a permit, and many of these non-diesel drilling fluids contain even higher concentrations of the same toxins found in diesel. The authors recommend that “EPA should revisit its guidance and broaden the categories of diesel products that require Safe Drinking Water Act permits before they can be injected into oil and gas wells.”³⁸⁷
- October 20, 2014 – While developing a technique to fingerprint and trace accidental releases of hydraulic fracturing fluids, researchers showed that liquid waste from shale gas fracking operations is chemically different than waste flowing out of conventional wells. The researchers hypothesized that the hydraulic fracturing process itself liberates elements from clay minerals in the shale formations, including boron and lithium, which then enter the liquid waste.³⁸⁸

³⁸⁵ Kahrilas, G. A. Blotevogel, J., Stewart, P. S., & Borch, T. (2015). Biocides in hydraulic fracturing fluids: a critical review of their usage, mobility, degradation, and toxicity. *Environmental Science & Technology*, 49,16-32. doi: 10.1021/es503724k

³⁸⁶ Board, G. (2014, November 3). September drilling accident contaminated water in Doddridge County. *West Virginia Public Broadcasting*. Retrieved from <http://wvpublic.org/post/dep-september-drilling-accident-contaminated-water-doddridge-county>

³⁸⁷ Schaeffer, E., & Bernhardt, C. (2014, October 22). Fracking’s toxic loophole. The Environmental Integrity Project. Retrieved from <http://environmentalintegrity.org/wp-content/uploads/FRACKINGS-TOXIC-LOOPHOLE.pdf>

³⁸⁸ Warner, N. R., Darrah, T. H., Jackson, R. B., Millot, R., Kloppmann, W., & Vengosh, A. (2014). New tracers identify hydraulic fracturing fluids and accidental releases from oil and gas operations. *Environ. Sci. Technol.*, 48(21), 12552–12560. doi: 10.1021/es5032135

- October 15, 2014 – Four thousand gallons of liquid fracking waste dumped into Waynesburg sewer system was discovered by sewage treatment plant workers in Greene County, Pennsylvania. The Department of Environmental Protection surmised that “someone removed a manhole cover in a remote location and dumped the fluid.” The treatment plant discharges into a creek that feeds the Monongahela River, which provides drinking water to more than 800,000 people.³⁸⁹
- October 6, 2014 – A state investigation that found no fracking-related water contamination in a drinking water well in Pennsylvania’s Washington County was invalidated by testimony presented to the state Environmental Hearing Board. Not all contaminants that were present in the water were reported, and the investigation relied on obsolete testing methods. More sophisticated testing revealed the presence of several chemical contaminants in the well water. The well is located 2,800 feet down gradient from a drilling site and fracking waste pit where multiple spills and leaks more than four years earlier had contaminated two springs.³⁹⁰
- September 23, 2014 – In a two-part audit of records, the GAO found that the EPA is failing to protect U.S. drinking water sources from fracking-related activities such as waste disposal via injection wells. Nationwide, 172,000 injection wells accept fracking waste; some are known to have contaminated drinking water. And yet, both short-term and long-term monitoring is lax, and record-keeping varies widely from state to state. The EPA neither mandates nor recommends a fixed list of chemicals for monitoring on the grounds that “injection fluids can vary widely in composition and contain different naturally occurring chemicals and fluids used in oil and gas production depending on the source of the injection fluid.”³⁹¹ Disposal of oil and gas waste via injection wells is, in fact, subject to regulation under the Safe Drinking Water Act, but, in practice, no one knows exactly what the waste contains, and regulations are deficient. In the United States, at least two billion gallons of fluids are injected into the ground *each day* to enable oil and gas extraction via fracking or to dispose of liquid waste from fracking operations.^{392, 393}
- September 18, 2014 – Range Resources was fined a record \$4.5 million by the Pennsylvania Department of Environmental Protection for contaminating groundwater.

³⁸⁹ Hopey, D. (2014, October 15). Waynesburg officials investigate dumping of fracking wastewater. *Pittsburgh Post-Gazette*. Retrieved from <http://powersource.post-gazette.com/news/environment/2014/10/15/Waynesburg-investigates-dumping-of-fracking-wastewater/stories/201410150056>

³⁹⁰ Hopey, D. (2014, October 6). Testimony: obsolete tests tainted shale analysis. *Pittsburgh Post-Gazette*. Retrieved from <http://powersource.post-gazette.com/powersource/companies-powersource/2014/10/06/Testimony-Obsolete-tests-tainted-shale-analysis/stories/201410060075>

³⁹¹ U.S. Government Accountability Office. (2014, September 23). Drinking water: characterization of injected fluids associated with oil and gas production. GAO-14-657R. Retrieved from <http://www.gao.gov/products/GAO-14-857R>.

³⁹² Sadasivam N. (2014, July 29). Report criticizes EPA oversight of injection wells, *ProPublica*. Retrieved from <http://www.propublica.org/article/report-criticizes-epa-oversight-of-injection-wells>

³⁹³ U.S. Government Accountability Office. (June 27, 2014). EPA program to protect underground sources from injection of fluids associated with oil and gas production needs improvement. GAO-14-555. Retrieved from <http://www.gao.gov/products/GAO-14-555>

The culprits were six leaking pits in Washington County that each held millions of gallons of fracking wastewater.³⁹⁴

- September 12, 2014 – A Pennsylvania State ecosystems scientist, together with USGS scientists, reviewed the current knowledge of the effects of fracking and its associated operations on terrestrial and aquatic ecosystems in 20 shale plays in the U.S. Findings of species and habitats at highest risk include (in addition to land-based examples) vernal pond inhabitants and stream biota. The research builds on previous reviews identifying “three main potential stressors to surface waters: changes in water quantity (hydrology), sedimentation, and water quality.” Researchers determined that there are no published data specifically on the effects of fracking on forest-dwelling amphibians, but “many species breed in vernal ponds which are negatively affected by changes in water quantity and quality and direct disturbance. Many amphibians are also highly sensitive to road salts.” Given that the U.S. EPA recently found 55 percent of all rivers and streams to be in poor condition, these researchers warned, “Large-scale development of shale resources might increase these percentages.” They expressed concern for the native range of brook trout by the cumulative effects of shale development, especially in Pennsylvania.³⁹⁵
- September 9, 2014 – A research team from Stanford and Duke Universities discovered that fracking wastewater processed by sewage treatment plants contributes to the formation of carcinogenic chemical byproducts. These raise public health risks when downstream surface water is used for drinking. Even when fracking wastewater was diluted by a factor of 10,000, the bromides and iodides in the waste reacted with organic matter to create highly toxic halogenated compounds—at troublingly high concentrations. These toxic compounds are not filterable by municipal wastewater treatment plants. Halogenated disinfection byproducts in drinking water are linked to both colon and bladder cancers.³⁹⁶
- August 29, 2014 – A review of Pennsylvania Department of Environmental Protection files on fracking-related damage to drinking water—which are kept on paper and stored in regional offices—revealed that 243 private water supplies in 22 counties had been contaminated or had lost flow and dried up as a result of nearby drilling and fracking operations in the past seven years. Pollutants included methane, metals, and salts as well as carbon-based compounds (ethylene glycol and 2-butoxyethanol) that are known to be constituents of fracking fluid. As reported by the *Pittsburgh Post-Gazette*, this tally—which came as a response to multiple lawsuits and open-records requests by media

³⁹⁴ Hopey, D. (2014, September 18). Range resources to pay \$4.15M penalty. *Pittsburgh Post-Gazette*. Retrieved from <http://www.post-gazette.com/local/2014/09/18/DEP-orders-Range-Resources-to-pay-4-million-fine/stories/201409180293>

³⁹⁵ Brittingham, M. C., Maloney, K. O., Farag, A. M., Harper, D. D., & Bowen, Z. H. (2014). Ecological risks of shale oil and gas development to wildlife, aquatic resources and their habitats. *Environmental Science & Technology*, 48(19), 11034–11047. doi: [dx.doi.org/10.1021/es5020482](https://doi.org/10.1021/es5020482)

³⁹⁶ Parker, K. M., Zeng, T., Harkness, J., Vengosh, A., & Mitch, W. A. 2014. Enhanced formation of disinfection byproducts in shale gas wastewater-impacted drinking water supplies. *Environmental Science & Technology*, 48(19), 11161–11169. doi: [10.1021/es5028184](https://doi.org/10.1021/es5028184)

sources—was the first time the agency “explicitly linked a drilling operation to the presence of industrial chemicals in drinking water.”^{397, 398}

- August 13, 2014 – Over the last decade, drilling companies have repeatedly claimed they are no longer using diesel fuel in fracking, although a 2011 investigation by U.S. House Democrats concluded otherwise. The Environmental Integrity Project examined disclosure data submitted to FracFocus and identified at least 351 wells in 12 states that have been fracked over the last four years with one or more of the five prohibited products identified as diesel. EIP researchers also discovered numerous fracking fluids with high diesel content for sale online, including over a dozen products sold by Halliburton and advertised as additives, friction reducers, emulsifiers, etc.³⁹⁹
- August 13, 2014 – An international team of researchers found high levels of carbon-based compounds in liquid fracking waste. These impurities can react with chlorine and bromine to create toxic byproducts. This study suggests that chemical treatment of liquid fracking waste will magnify its toxic potency, as will reusing and recycling it.⁴⁰⁰ The European Commission subsequently published a summary of these findings.⁴⁰¹
- August 13, 2014 – A team from Lawrence Berkeley National Laboratory reported that scientific efforts to understand the hazards of fracking continue to be hampered by industry secrecy. A comprehensive examination of the chemical formulations of fracking fluid—whose precise ingredients are protected as proprietary business information—revealed that no publicly available toxicity or physical chemical information was available for one-third of all the fracking chemicals surveyed. Another ten percent of chemicals, including biocides and corrosion inhibitors, were known to be toxic to mammals.^{402, 403}

³⁹⁷ Pennsylvania Department of Environmental Protection. (2014 August 29). Water supply determination letters. Retrieved from http://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/OilGasReports/Determination_Letters/Regional_Determination_Letters.pdf

³⁹⁸ Legere, L. (2014, September 9). DEP releases updated details on water contamination near drilling sites: some 240 private supplies damaged by drilling in the past 7 years. *Pittsburgh Post-Gazette*. Retrieved from <http://powersource.post-gazette.com/powersource/policy-powersource/2014/09/09/DEP-releases-details-on-water-contamination/stories/201409090010>

³⁹⁹ Greene, M. (2014, August 13). Fracking beyond the law: Despite industry denials, investigation reveals continued use of diesel in hydraulic fracturing. The Environmental Integrity Project. Retrieved from <http://environmentalintegrity.org/wp-content/uploads/Fracking-Beyond-the-Law.pdf>

⁴⁰⁰ Maguire-Boyle, S. J., & Barron, A. R. (2014). Organic compounds in produced waters from shale gas wells. *Environmental Science: Processes & Impacts*, 16, 2237-2248. doi: 10.1039/C4EM00376D

⁴⁰¹ European Commission. (2015, February 19). Chemical composition of fracking wastewater. *Science for Environment Policy*, 404. Retrieved from http://ec.europa.eu/environment/integration/research/newsalert/pdf/chemical_composition_of_fracking_wastewater_404na4_en.pdf

⁴⁰² Stringfellow, W. T., Domen, J. K., Carmarillo, M. K., Sandelin, W. L., Tinnacher, R., Jordan, P., . . . Birkholzer, J. (August 13, 2014). Characterizing compounds used in hydraulic fracturing: a necessary step for understanding environmental impacts. Presentation before the American Chemical Society conference, San Francisco. Abstract retrieved from http://abstracts.acs.org/chem/248nm/program/view.php?obj_id=262051&terms=

⁴⁰³ Robinson, P. (2014, August 19). Fracking fluid survey shows missing information. *Scientific American*. Retrieved from <http://www.scientificamerican.com/article/fracking-fluid-survey-shows-missing-information/>

- August 12, 2014 – A Stanford University research team working in the Pavillion gas basin in Wyoming documented that fracking in shallow layers of bedrock, including those that serve as drinking water aquifers, is not uncommon. This finding overturns the industry claim that oil and gas deposits targeted by fracking operations are located at much greater depths than underground drinking water sources and are isolated from them by hundreds of feet of impermeable rock. Because it is exempt from provisions of the Safe Drinking Water Act, fracking in drinking water aquifers is not prohibited by law.⁴⁰⁴
- August 3, 2014 – An investigation by the *Pittsburgh Post-Gazette* found that half of all fracking-related spills that resulted in violations and fines were not discovered by the gas companies themselves, even though Pennsylvania state law requires them to pro-actively seek and report such incidents. The newspaper’s analysis of hundreds of thousands of state and company documents showed that self-regulation in the gas fields is a failure. One-third of all spills were discovered by state inspectors, while one-sixth were found by residents. Likely, much contamination is entirely undetected and unreported.⁴⁰⁵
- July 21, 2014 – An investigation by the *Columbus Dispatch* showed that Halliburton delayed disclosure to federal and state EPA agencies of the full list of chemicals that spilled into a creek following a fire on one of its well pad in Monroe County, Ohio. Although the creek is an important supply of drinking water for downstream communities and the spill precipitated a mass die-off of fish and other aquatic wildlife, five full days passed before EPA officials were provided a full inventory of chemicals used at Halliburton’s operation. As a result, the public was denied knowledge of potential chemical exposures.⁴⁰⁶
- July 17, 2014 – A team of environmental scientists, biologists, and engineers, from institutions including the University of Michigan and McGill University, assessed the current state of understanding of the impact fracking and its associated activities have on the ecological health of surface waters. Though various approaches such as geographic information systems and site monitoring provide insights into potential risks to aquatic ecosystems, the authors concluded that inadequate data currently exist. They identified possible outcomes such as, “erosion and sedimentation, increased risk to aquatic ecosystems from chemical spills or runoff, habitat fragmentation, loss of stream riparian

⁴⁰⁴ Banerjee, N. (2014, August 12). Oil companies fracking into drinking water sources, new research finds. *Los Angeles Times*. Retrieved from <http://www.latimes.com/nation/la-na-fracking-groundwater-pavillion-20140811-story.html#page=1>

⁴⁰⁵ Hamill, S. D. (2014, August 3). Drillers did not report half of spills that led to fines. *Pittsburgh Post-Gazette*. Retrieved from <http://www.post-gazette.com/news/state/2014/08/03/Drillers-did-not-report-half-of-spills-that-led-to-fines/stories/201408020142>

⁴⁰⁶ Arenschiold, L. (2014, July 21). Halliburton delayed releasing details on fracking chemicals after Monroe County spill. *The Columbus Dispatch*. Retrieved from <http://www.dispatch.com/content/stories/local/2014/07/21/details-on-chemicals-trickle-in-after-spill.html>

zones, altered biogeochemical cycling, and reduction of available surface and hyporheic water volumes because of withdrawal-induced lowering of local groundwater levels.”⁴⁰⁷

- July 7, 2014 – California Department of Gas, Oil, and Geothermal Resources ordered seven energy companies to stop injecting liquid fracking waste into aquifers. The ongoing drought that has compelled farmers to supplement irrigation with water drawn from groundwater sources prompted state officials to look at the status of aquifers previously considered too deep for use or too poor in quality. They discovered that at least seven injection wells were very likely pumping liquid fracking waste into protected groundwater supplies rather than aquifers that had been sacrificed for the purpose of waste disposal. Across the United States, more than 1000 aquifers are exempt from any type of pollution protection at all, and many of these are in California, according to a related *ProPublica* investigation.⁴⁰⁸
- June 25, 2014 – A study by Cornell University researchers found that fracking fluid and fracking wastewater mobilized previously deposited chemical contaminants in soil particles in ways that could potentially exacerbate the impacts of fracking fluid spills or leaks. The research team concluded that, by interfering with the ability of soil to bond to and sequester pollutants such as heavy metals, fracking fluids may release from soils an additional repository of contaminants that could migrate into groundwater.⁴⁰⁹
- June 23, 2014 – Building on earlier findings that water samples collected from sites with confirmed fracking spills in Garfield County, Colorado exhibited moderate to high levels of estrogen and androgen-disrupting activity, a University of Missouri team extended their investigation to other types of hormonal effects. As reported at a joint meeting of the International Society of Endocrinology and the Endocrine Society, their research documented that commonly used fracking chemicals can also block the receptors for thyroid hormone, progesterone, and glucocorticoids (a family of hormones involved in both fertility and immune functioning). Of 24 fracking chemicals tested, all 24 interfered with the activity of one or more important hormone receptors. There is no known safe level of exposure to hormone-disrupting chemicals.⁴¹⁰
- May 11, 2014 – According to the GAO, the federal government is failing to inspect thousands of oil and gas wells located on public land, including those that pose special

⁴⁰⁷ Burton Jr., G. A., Basu, N., Ellis, B. R., Kapo, K. E., Entrekin, S. & Nadelhoffer, K. (2014). Hydraulic “fracking”: are surface water impacts an ecological concern? *Environmental Toxicology and Chemistry*, 33(8), 1679-1689.

⁴⁰⁸ Lustgarten, A. (2014, July 18). California halts injects of fracking waste, warning it may be contaminating aquifers. *ProPublica*. Retrieved from <http://www.propublica.org/article/ca-halts-injection-fracking-waste-warning-may-be-contaminating-aquifers>

⁴⁰⁹ Sang, W., Stoof, C., Zhang, W., Morales, V., Gao, B., Kay, R., . . . Steenhuis, T. (2014). Effect of hydrofracking fluid on colloid transport in the unsaturated zone. *Environmental Science & Technology*, 48(14), 8266–8274. Retrieved from <http://pubs.acs.org/doi/abs/10.1021/es501441e>

⁴¹⁰ The Endocrine Society (2014, June 23). Hormone-disrupting activity of fracking chemicals worse than initially found. *Science Daily*. Retrieved from http://www.sciencedaily.com/releases/2014/06/140623103939.htm?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencedaily%2Ftop_news%2Ftop_health+%28ScienceDaily%3A+Top+Health+News%29

risks of water contamination or other environmental damage. An investigation by the Associated Press found that the Bureau of Land Management “had failed to conduct inspections on more than 2,100 of the 3,702 wells that it had specified as ‘high priority’ and drilled from 2009 through 2012. The agency considers a well ‘high priority’ based on a greater need to protect against possible water contamination and other environmental safety issues.”⁴¹¹

- March 25, 2014 – An industry-funded study of oil and gas well integrity found that more than six percent of wells in a major shale exploration region in Pennsylvania showed evidence of leaking and conceded that this number is likely an underestimate. Researchers concluded that the percentage of wells with some form of well barrier or integrity failure is highly variable and could be as high as 75 percent. A separate analysis in the same study found 85 examples of cement or casing failures in Pennsylvania wells monitored between 2008 and 2011.⁴¹²
- March 7, 2014 – In a comprehensive evaluation, Duke University scientists and colleagues reviewed the state of knowledge on possible effects of shale gas and hydraulic fracturing on water resources in the United States and concluded, “Analysis of published data (through January 2014) reveals evidence for stray gas contamination, surface water impacts in areas of intensive shale gas development, and the accumulation of radium isotopes in some disposal and spill sites.”⁴¹³
- February 19, 2014 – A Pennsylvania court found a gas corporation guilty of contaminating a woman’s drinking water well in Bradford County. Methane levels after fracking were 1,300-2,000 times higher than baseline, according to the court brief. Iron levels and turbidity had also increased. The brief stated, “In short, Jacqueline Place lived for ten months deprived totally of the use of her well, and even after its ‘restoration,’ has been burdened with a water supply with chronic contamination, requiring constant vigilance and ongoing monitoring.”⁴¹⁴
- January 16, 2014 – Data from the Colorado Oil and Gas Conservation Commission showed that fracking-related chemical spills in Colorado exceed an average rate of one spill per day. Of the 495 chemical spills that occurred in that state over a one-year period of time, nearly a quarter impacted ground or surface water. Sixty-three of the spills spread within 1,500 feet of pigs, sheep, and cows; 225 spread within 1,500 feet of

⁴¹¹ Yen, H. (2014, May 11). Fed govt failed to inspect higher risk oil wells. *Associated Press*. Retrieved from <http://bigstory.ap.org/article/fed-govt-failed-inspect-higher-risk-oil-wells>

⁴¹² Davies, R. J., Almond, S., Ward, R. S., Jackson, R. B., Adams, C., Worrall, F., . . . Whitehead, M. A. (2014). Oil and gas wells and their integrity: Implications for shale and unconventional resource exploitation. *Marine and Petroleum Geology*, *56*, 239-254. doi: 10.1016/j.marpetgeo.2014.03.001

⁴¹³ Vengosh, A., Jackson, R. B., Warner, N., Darrah, T. H., & Kondash, A. (2014). A critical review of the risks to water resources from unconventional shale gas development and hydraulic fracturing in the United States [Abstract]. *Environmental Science & Technology*. doi: 10.1021/es405118y

⁴¹⁴ Gibbons, B. (2014, February 19). Woman wins case against Chesapeake Jaqueline Place of Terry Township to receive compensation for well contamination. *TheDailyReview.com*. Retrieved from <http://thedailyreview.com/news/woman-wins-case-against-chesapeake-jaqueline-place-of-terry-township-to-receive-compensation-for-well-contamination-1.1636832>

buildings.⁴¹⁵

- January 10, 2014 – Duke University water tests revealed ongoing water contamination in Parker County, Texas, providing evidence that the EPA had prematurely ended its prior investigation into the water contamination.⁴¹⁶ A letter sent to the EPA from more than 200 environmental organizations called on the agency to re-open its investigation.⁴¹⁷
- January 5, 2014 – An Associated Press investigation into drinking water contamination from fracking in four states—Pennsylvania, Ohio, West Virginia, and Texas—found many cases of confirmed water contamination and hundreds more complaints. The Associated Press noted that their analysis “casts doubt on industry view that it rarely happens.”⁴¹⁸
- December 24, 2013 – A report from the EPA Inspector General concluded that evidence of fracking-related water contamination in Parker County, Texas was sound and faulted the EPA for prematurely ending its investigation there, relying on faulty water testing data from the gas industry in doing so, and failure to intervene when affected residents’ drinking water remained unsafe.⁴¹⁹ As reported by *Business Insider*, “The EPA Screwed Up When It Dropped This Fracking Investigation.”⁴²⁰
- December 16, 2013 – Lead by Susan Nagel of the University of Missouri School of Medicine, researchers documented endocrine-disrupting properties in chemicals commonly used as ingredients of fracking fluid and found similar endocrine-disrupting activity in groundwater and surface water samples collected near drilling and fracking sites in Garfield County, Colorado. Endocrine disruptors are chemicals that interfere with the activity of hormones in the body and, at very low concentrations, can raise the risk of reproductive, metabolic, and neurological disorders, especially when exposures occur in early life.^{421, 422, 423}

⁴¹⁵ Tomasic, J. (2014, January 16). Colorado drilling data: More than a spill a day. *The Colorado Independent*.

Retrieved from <http://www.coloradoindependent.com/145629/colorado-drilling-data-more-than-a-spill-a-day>

⁴¹⁶ Drajem, M. (2014, January 9). Duke fracking tests reveal dangers driller's data missed. *Bloomberg*. Retrieved from <http://www.bloomberg.com/news/2014-01-10/epa-s-reliance-on-driller-data-for-water-irks-homeowners.html>

⁴¹⁷ Drajem, M. (2014, January 27). EPA needs fracking review: 'Gasland' maker, environmentalists. *Bloomberg*. Retrieved from <http://go.bloomberg.com/political-capital/2014-01-27/epa-needs-fracking-review-gasland-producer-environmentalists-say/>.

⁴¹⁸ Begos, K. (2014, January 05). 4 states confirm water pollution from drilling. *USA Today*. Retrieved from <http://www.usatoday.com/story/money/business/2014/01/05/some-states-confirm-water-pollution-from-drilling/4328859/>

⁴¹⁹ Banjeree, N. (2013, December 24). EPA report on fracking in Texas raises new concerns. *Los Angeles Times*. Retrieved from <http://www.latimes.com/nation/la-na-epa-fracking-20131225,0,6042944.story#ixzz2oVB9FXVY>

⁴²⁰ Miedema, D. (2013, December 25). The EPA screwed up when it dropped this fracking investigation. *Business Insider*. Retrieved from <http://www.businessinsider.com/epa-criticized-for-dropping-fracking-investigation-2013-12>

⁴²¹ Kassotis, C. D., Tillitt, D. E., Davis, J. W., Hormann, A. M., & Nagel, S. C. (2013). Estrogen and androgen receptor activities of hydraulic fracturing chemicals and surface and ground water in a drilling-dense region. *Endocrinology*. doi: 10.1210/en.2013-1697

⁴²² Banerjee, N. (2013, December 16). Hormone-disrupting chemicals found in water at fracking sites. *Los Angeles Times*. Retrieved from <http://articles.latimes.com/2013/dec/16/science/la-sci-fracking-health-20131217>

⁴²³ Endocrine Society. (2013, December 16). Fracking chemicals disrupt hormone function. *ScienceDaily*. Retrieved from www.sciencedaily.com/releases/2013/12/131216140428.htm

- December 7, 2013 – Reporting on the second gas leak at a single gas well in one month, the Fort Worth *Star-Telegram* uncovered another inherent risk of fracking for groundwater contamination: Silica sand, which is used as an ingredient in fracking fluid for its ability to prop open the shale fractures, can damage steel pipes as it flows back up the well along with the gas. According to Dan Hill, head of the petroleum engineering department at Texas A&M University, new wells are the most susceptible to sand erosion because “the amount of sand and gas rushing through valves and flow lines is at its greatest when a well first goes into production.”⁴²⁴
- November 28, 2013 – An Associated Press investigation uncovered nearly 300 oil pipeline spills in North Dakota in the previous ten months, all with no public notification. These were among some 750 “oil field incidents” that had occurred in the state over the same time period, also without public notification. Until the AP inquiry, industry and state officials had kept quiet about one particular “massive spill” that had been accidentally discovered by a wheat farmer. Even small spills can contaminate water sources permanently and take cropland out of production.⁴²⁵
- November 26, 2013 – A USGS report found serious impacts of fracking on watersheds and water quality throughout the Appalachian Basin, as well as issues with radiation and seismic events. As noted in the report, the knowledge of how extraction affects water resources has not kept pace with the technology.^{426, 427} Meanwhile, clean fresh water is becoming an increasingly scant resource. A report prepared for the U.S. State Department forecasts a serious freshwater shortage by 2030, with global demand exceeding supply by 40 percent.⁴²⁸
- November 22, 2013 – A USGS study of pollution from oil production in North Dakota, where horizontal drilling and hydraulic fracturing are heavily used, identified two potential plumes of groundwater contamination covering 12 square miles. The cause was traced to a casing failure in a wastewater disposal well. Drilling companies had incorrectly assumed that, once injected underground, the wastewater would remain contained. According to *EnergyWire*, the development of the Bakken oil formation is

⁴²⁴ Hirst, C., & Fuquay, J. (2013, December 7). Second leak reported at east Fort Worth gas well site. *Star-Telegram*. Retrieved from <http://www.star-telegram.com/2013/12/07/5399740/second-leak-reported-at-east-fort.html?rh=1>

⁴²⁵ MacPherson, J. (2013, October 28). Nearly 300 pipeline spills in North Dakota have gone unreported to the public since January 2012. *Huffington Post*. Retrieved from http://www.huffingtonpost.com/2013/10/28/pipeline-spills-north-dakota_n_4170133.html?ncid=edlinkusaolp00000003

⁴²⁶ Kappel, W. M., Williams, J. H., & Szabo, Z. (2013). Water resources and shale gas/oil production in the Appalachian Basin - Critical issues and evolving developments. *U.S. Geological Survey*. Retrieved from <http://pubs.usgs.gov/of/2013/1137/pdf/ofr2013-1137.pdf>

⁴²⁷ Mall, A. (2013, November 26). New USGS analysis: Threats to water, wildlife, and health from oil and gas development in the Appalachian basin [Web log post]. Retrieved from http://switchboard.nrdc.org/blogs/amall/new_usgs_analysis.html

⁴²⁸ National Intelligence Council. (2012, February 2). *Global Water Security: Intelligence Community Assessment*, (ICA 2012-08). Retrieved from http://www.dni.gov/files/documents/Special%20Report_ICA%20Global%20Water%20Security.pdf

“leaving behind an imprint on the land as distinct as the ones left by the receding ice sheets of the ice age.”⁴²⁹

- September 10, 2013 – Pennsylvania Attorney General Kathleen Kane filed criminal charges against Exxon Mobil Corporation’s subsidiary, XTO Energy Corporation, for a spill of 50,000 gallons of toxic drilling wastewater in 2010 that contaminated a spring and a tributary of the Susquehanna River. In July, XTO settled civil charges for the incident without admitting liability by agreeing to pay a \$100,000 fine and improve its wastewater management.⁴³⁰
- September 10, 2013 – Out of concern for risks posed to drinking water in the nation’s capital, George Hawkins, General Manager of DC Water, Washington, DC’s local water provider, called for a prohibition on horizontal drilling and hydraulic fracturing in the George Washington National Forest until the process can be proven safe.⁴³¹ The Potomac River is the source of the District’s water supply and has its headwaters in the George Washington National Forest, which sits atop the Marcellus Shale. The general managers of Fairfax Water, provider of drinking water for Fairfax County, Virginia, and the U.S. Army Corps of Engineers have called for a similar prohibition.⁴³²
- September 3, 2013 – The North Dakota Department of Mineral Resources voiced concern about an increasing number of fracking well blowouts (23 incidents in the past year) that result in spills and public safety threats.⁴³³
- August 28, 2013 – A joint USGS and U.S. Fish and Wildlife Service study documented a causal link between a fracking wastewater spill and the widespread death of fish in the Acorn Fork, a creek in Kentucky.⁴³⁴
- July 25, 2013 – A University of Texas at Arlington study of drinking water found elevated levels of arsenic and other heavy metals in some samples from private drinking

⁴²⁹ Vaidyanathan, G. (2013, November 22). Bakken shale: As oil production sets in, pollution starts to migrate -- scientists. *E&E Publishing, LLC*. Retrieved from <http://www.eenews.net/stories/1059990892>

⁴³⁰ Maykuth, A. (2013, September 13). Shale criminal charges stun drilling industry. *Philly.com*. Retrieved from http://articles.philly.com/2013-09-13/news/42012429_1_xto-energy-inc-criminal-charges-attorney-general

⁴³¹ Letter from George Hawkins, General Manager, DC Water, to U.S. Secretary of Agriculture, Thomas Vilsack, (Sept. 10, 2013), <http://www.washingtoncitypaper.com/blogs/housingcomplex/2013/09/20/dc-water-chief-urges-agriculture-secretary-not-to-allow-fracking-near-d-c/>

⁴³² Wiener, A. (2013, September 20). DC Water Chief urges Agriculture Secretary not to allow fracking near D.C. *Washington City Paper*. Retrieved from <http://www.washingtoncitypaper.com/blogs/housingcomplex/2013/09/20/dc-water-chief-urges-agriculture-secretary-not-to-allow-fracking-near-d-c/>

⁴³³ Sun Staff. (2013, September 3). More blowouts a concern for N.D. *The Jamestown Sun*. Retrieved from <http://www.jamestownsun.com/content/more-blowouts-concern-nd>

⁴³⁴ Papoulias, D., & MacKenzie, T. (2013, August 28). Hydraulic fracturing fluids likely harmed threatened Kentucky fish species. *USGS Newsroom*. Retrieved from <http://www.usgs.gov/newsroom/article.asp?ID=3677>

water wells located within five kilometers of active natural gas wells in the Barnett Shale.⁴³⁵

- July 3, 2013 – *ProPublica* reported that the EPA was wrong to have halted its investigation of water contamination in Wyoming, Texas and Pennsylvania—where high levels of benzene, methane, arsenic, oil, methane, copper, vanadium, and other chemicals associated with fracking operations have been documented.⁴³⁶ Although numerous organizations and health professionals around the country have since called on the agency to resume its investigation, no action has been taken.
- June 6, 2013 – Reviewing hundreds of regulatory and legal filings, *Bloomberg News* reported that drillers have offered out-of-court cash settlements and property buyouts to homeowners who claim that fracking ruined their water. These agreements typically come with gag orders and sealed records. This strategy, the investigation noted, allows the industry to continue claiming that no cases of water contamination due to fracking have ever been confirmed, impedes public health research, and shields data from regulators, policy makers, and the new media.⁴³⁷ The EPA also long ago noted how non-disclosure agreements between oil and gas operators and landowners challenge scientific progress and keep examples of drilling harm secret from the public. In a 1987 report, the EPA wrote, “In some cases, even the records of well-publicized damage incidents are almost entirely unavailable for review. In addition to concealing the nature and size of any settlement entered into between the parties, impoundment curtails access to scientific and administrative documentation of the incident.”⁴³⁸
- June 3, 2013 – A study by Duke University researchers linked fracking with elevated levels of methane, ethane, and propane in nearby groundwater.⁴³⁹ Published in *Proceedings of the National Academy of Sciences*, the study included results from 141 northeastern Pennsylvania water wells. Methane levels were, on average, six times higher in drinking water wells closer to drilling sites when compared with those farther away, while ethane was 23 times higher.⁴⁴⁰

⁴³⁵ Fontenot, B. E., Hunt, L. R., Hildenbrand, Z. L., Carlton Jr., D. D., Oka, H., Walton, J. L., . . . Schug, K. A. (2013). An evaluation of water quality in private drinking water wells near natural gas extraction sites in the Barnett Shale formation. *Environmental Science & Technology*, 47(17), 10032-10040. doi: 10.1021/es4011724

⁴³⁶ Lustgarten, A. (2013, July 3). EPA’s abandoned Wyoming fracking study one retreat of many. *ProPublica*. Retrieved from <http://www.propublica.org/article/epas-abandoned-wyoming-fracking-study-one-retreat-of-many>

⁴³⁷ Efstathiou, J., Jr., & Drajem, M. (2013, June 5). Drillers silence fracking claims with sealed settlements.

Bloomberg. Retrieved from <http://www.bloomberg.com/news/2013-06-06/drillers-silence-fracking-claims-with-sealed-settlements.html>

⁴³⁸ Environmental Protection Agency. (1987). *Report to Congress: Management of wastes from the exploration, development, and production of crude oil, natural gas, and geothermal energy* (Rep.). 137-138. Washington, D.C.: U.S. Environmental Protection Agency.

⁴³⁹ Jackson, R. B., Vengosh, A., Darrah, T. H., Warner, N. R., Down, A., Poreda, R. J., . . . Karr, J. D. (2013). Increased stray gas abundance in a subset of drinking water wells near Marcellus shale gas extraction. *Proceedings of the National Academy of Sciences*, 110(28), 11250-11255. doi: 10.1073/pnas.1221635110

⁴⁴⁰ CBS/AP. (2013, June 25). Methane found in Pa. drinking water near fracked wells. *CBS News*. Retrieved from <http://www.cbsnews.com/news/methane-found-in-pa-drinking-water-near-fracked-wells/>

- May 19, 2013 – In Pennsylvania, the *Scranton Times-Tribune* released details of an investigation that revealed at least 161 cases of water contamination from fracking between 2008 and the fall of 2012, according to state Department of Environmental Protection records.⁴⁴¹
- April 2013 – Researchers analyzing publicly available Colorado data found 77 surface spills impacting groundwater in Weld County alone. Samples of these spills often exceeded drinking water maximum contaminant levels (MCLs) for benzene, toluene, ethylbenzene and xylene; for benzene, a known carcinogen, 90 percent of the samples exceeded the legal limit.⁴⁴²
- March 4, 2013 – Researchers at the University of Pittsburgh Graduate School of Public Health analyzed samples of gas drilling wastewater discharged to surface water through wastewater treatment plants. Barium, strontium, bromides, chlorides, and benzene all exceeded levels known to cause human health impacts.⁴⁴³
- December 9, 2012 – State data in Colorado showed more than 350 instances of groundwater contamination resulting from more than 2,000 spills from oil and gas operations over the past five years. Further, as the *Denver Post* reported, “Contamination of groundwater—along with air emissions, truck traffic and changed landscapes—has spurred public concerns about drilling along Colorado’s Front Range.”⁴⁴⁴
- May 4, 2012 – A report for the Canadian Government, released under the Access to Information Act, reviewed the process, the regulatory framework globally, and the potential health hazards related to shale gas extraction. Additionally, the report evaluated mechanisms for potential impacts and summarized the data knowledge and data gaps. Regarding water contamination, the report determined, “Although quantitative data are lacking, the qualitative data available indicate that potential contamination of water related to the shale gas industry may present hazard to the public health, especially for local population.” Regarding air contamination: “air emissions related to the shale gas industry present health hazards since the air pollutants originating from the vehicles and engines fuelled by diesel are toxic to the respiratory and cardiovascular systems and can cause premature mortality, volatile organic compounds have been associated to neurotoxicity and some of these compounds (e.g. benzene) as well as NORMs are known or possible human carcinogens.” The report concluded, “Any step of shale gas

⁴⁴¹ Legere, L. (2013, May 19). Sunday Times review of DEP drilling records reveals water damage, murky testing methods. *The Times-Tribune*. Retrieved from <http://thetimes-tribune.com/news/sunday-times-review-of-dep-drilling-records-reveals-water-damage-murky-testing-methods-1.1491547>

⁴⁴² Gross, S. A., Avens, H. J., Banducci, A. M., Sahmel, J., Panko, J. M., & Tvermoes, B. E. (2013). Analysis of BTEX groundwater concentrations from surface spills associated with hydraulic fracturing operations. *Journal of the Air & Waste Management Association*, 63(4), 424-432. doi: 10.1080/10962247.2012.759166

⁴⁴³ Ferrar, K. J., Michanowicz, D. R., Christen, C. L., Mulcahy, N., Malone, S. L., & Sharma, R. K. (2013). Assessment of effluent contaminants from three facilities discharging Marcellus shale wastewater to surface waters in Pennsylvania. *Environmental Science & Technology*, 47(7), 3472-3481. doi: 10.1021/es301411q

⁴⁴⁴ Finley, B. (2012, December 9). Drilling spills reaching Colorado groundwater; state mulls test rules. *The Denver Post*. Retrieved from http://www.denverpost.com/environment/ci_22154751/drilling-spills-reaching-colorado-groundwater-state-mulls-test#ixzz2EihHU2fg

exploration/exploitation may represent a potential source of drinking water and air contamination; Hydraulic fracturing and wastewater disposal were identified as the main potential sources of risk.”⁴⁴⁵

- May 2012 – A report by researchers at Natural Resources Defense Council and Carnegie Mellon University found that the options available for dealing with fracking wastewater are inadequate to protect public health and the environment, resulting in increasing quantities of toxic wastewater as an ongoing problem without a good solution.⁴⁴⁶
- January 11, 2012 – The USGS reported that the Marcellus Shale is already highly fractured and that numerous fissures naturally occurring within the formation could potentially provide pathways for contaminants to migrate vertically into water supplies.⁴⁴⁷
- October 25, 2011 – After receiving new information from two companies, members of Congress updated their findings to show that “between 2005 and 2009, oil and gas service companies injected 32.7 million gallons of diesel fuel or hydraulic fracturing fluids containing diesel fuel in wells in 20 states.”⁴⁴⁸
- October 17, 2011 – Thomas P. Jacobus, General Manager of the U.S. Army Corps of Engineers’ Washington Aqueduct, called for a prohibition on horizontal hydraulic fracturing in the George Washington National Forest because of concern that fracking poses risks to drinking water. The Washington Aqueduct—which provides drinking water to Washington, DC, Arlington County, Virginia, and Falls Church, Virginia—is supplied by the Potomac River, which has its headwaters in the George Washington National Forest that sits atop the Marcellus Shale. Jacobus said, “Enough study on the technique [hydraulic fracturing] has been published to give us great cause for concern about the potential for degradation of the quality of our raw water supply....”⁴⁴⁹
- October 11, 2011 – Charles M. Murray, General Manager of Fairfax Water, called for a prohibition on horizontal hydraulic fracturing in the George Washington National Forest. “Natural gas development activities have the potential to impact the quantity and quality

⁴⁴⁵ Louis, S. (2012, May 4). Potential health hazards from shale gas exploration and exploitation—Drinking water and ambient air. Presented to Health Canada by SANEXEN Environmental Services; 0/Ref.: RA11-410. Document released under the (Canadian) Access to Information Act.

⁴⁴⁶ Hammer, R., & VanBriesen, J. (2012, May). *In fracking’s wake: New rules are needed to protect our health and environment from contaminated wastewater* (Rep.). Natural Resources Defense Council. Retrieved from <http://www.nrdc.org/energy/files/fracking-wastewater-fullreport.pdf>

⁴⁴⁷ U.S. Geological Survey, New York Water Science Center. (2012, January 11). *Comments on the revised draft supplemental generic environmental impact statement*. (Rep.). Retrieved from http://www.ewg.org/sites/default/files/report/ReviseddraftSGEIS_USGScomments_Version3_0.pdf

⁴⁴⁸ Waxman, H. A., Markey, E. J., & DeGette, D. (2011, October 25). *Committee on Energy & Commerce* (U.S.A., Congress, Committee on Energy & Commerce). Retrieved from <http://democrats.energycommerce.house.gov/index.php?q=news/rep-waxman-markey-and-degette-report-updated-hydraulic-fracturing-statistics-to-epa>

⁴⁴⁹ Jacobus, T. P. (2012, April 25). Draft environmental impact statement for the George Washington National Forest [Letter written October 17, 2011 to K. Landgraf]. Retrieved, from http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5366331.pdf

of Fairfax Water’s source water,” Murray wrote. “Downstream water users and consumers will bear the economic burden if drinking water sources are contaminated or the quality of our source water supply is degraded.”⁴⁵⁰ Fairfax Water provides drinking water for Fairfax County in Virginia.

- September 7, 2011 – In its draft Supplemental Generic Environmental Impact Statement (SGEIS), the New York State Department of Environmental Conservation (NYS DEC) acknowledged that “there is questionable available capacity”⁴⁵¹ for New York’s public sewage treatment plants to accept drilling wastewater, yet the agency said that it would allow those facilities to accept such waste if the plants meet permitting conditions.⁴⁵² The NYS DEC proposed underground injection as one alternative to sewage treatment procession of fracking waste. Although it is a common method of disposal for fracking wastewater,⁴⁵³ the last significant government study of pollution risks from oil and gas wastewater injection wells occurred in 1989 and found multiple cases of costly groundwater contamination.⁴⁵⁴ In subsequent years, studies have continued to link underground injection of drilling wastewater to pollution as well as earthquakes.⁴⁵⁵
- September 2011 – A team led by Theo Colburn of the Endocrine Disruptor Exchange found that 25 percent of chemicals known to be used in fracking fluids are implicated in cancer, 37 percent could disrupt the endocrine system, and 40-50 percent could cause nervous, immune and cardiovascular system problems. The research team also found that more than 75 percent could affect the skin, eyes, and respiratory system, resulting in various problems such as skin and eye irritation or flu-like symptoms.⁴⁵⁶
- August 4, 2011 – As reported by the *New York Times*, the EPA had alerted Congress in 1987 about a case of water contamination caused by fracking. Its report documented that

⁴⁵⁰ Murray, C. M. (n.d.). Draft environmental impact statement for the George Washington National Forest [Letter written October 11, 2013 to K. Landgraf]. Retrieved from <http://www.svnva.org/wp-content/uploads/fairfax-wash-aqueduct-gwnf-comments.pdf>

⁴⁵¹ New York State Department of Environmental Conservation. (2011). *Supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program, well permit issuance for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus shale and other low-permeability gas reservoirs* (6-62, Rep.).

⁴⁵² New York State Department of Environmental Conservation. (2011). *Supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program, well permit issuance for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus shale and other low-permeability gas reservoirs* (6-57 through 6-63, Rep.).

⁴⁵³ New York State Department of Environmental Conservation. (2011). *Supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program, well permit issuance for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus shale and other low-permeability gas reservoirs* (6-64, Rep.).

⁴⁵⁴ United States Government Accountability Office. (1989, July 5). Drinking water: Safeguards are not preventing contamination from injected oil and gas wastes. Retrieved from <http://www.gao.gov/products/RCED-89-97>

⁴⁵⁵ Fountain, H. (2012, January 1). Disposal halted at well after new quake in Ohio. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/01/02/science/earth/youngstown-injection-well-stays-shut-after-earthquake.html>

⁴⁵⁶ Colborn, T., Kwiatkowski, C., Schultz, K., & Bachran, M. (2011). Natural gas operations from a public health perspective. *Human and Ecological Risk Assessment: An International Journal*, 17(5), 1039-1056. doi: 10.1080/10807039.2011.605662

a shale gas well hydraulically fractured at a depth of more than 4,200 feet contaminated a water supply only 400 feet from the surface.^{457, 458, 459}

- May 17, 2011 – The state of Pennsylvania fined Chesapeake Energy Corporation \$900,000 for an incident in which improper cementing and casing in one of the company’s gas wells allowed methane to migrate underground and contaminate 16 private drinking water wells in Bradford County.⁴⁶⁰
- May 17, 2011 – A Duke University study documented “systematic evidence for methane contamination of drinking water associated with shale gas extraction.”⁴⁶¹ The study showed that methane levels were 17 times higher in water wells near drilling sites than in water wells in areas without active drilling.⁴⁶²
- April 22, 2011 – Describing one of many blowouts, the Associated Press reported on a shale gas well in Canton, Pennsylvania that spewed thousands of gallons of chemical-laced water on farmland and into a stream for two consecutive days before being brought under control.⁴⁶³
- April 18, 2011 – As part of a year-long investigation into hydraulic fracturing and its potential impact on water quality, U.S. Representatives Henry Waxman (D-Calif.), Edward Markey (D-Mass.) and Diana DeGette (D-Colo.) released the second of two reports issued in 2011. Their analysis of hydraulic fracturing fluids used by the 14 leading oil and natural gas service companies between 2005 and 2009 found, among other things, that the companies used more than 650 different products that contained chemicals that are known or possible human carcinogens, regulated under the Safe Drinking Water Act, or listed as hazardous air pollutants under the Clean Air Act. The report also showed that “between 2005 and 2009, the companies used 94 million gallons of 279 products that contained at least one chemical or component that the manufacturers deemed proprietary or a trade secret ... in most cases the companies stated that they did not have access to proprietary information about products they purchased ‘off the shelf’ from chemical suppliers. In these cases, the companies are injecting fluids containing

⁴⁵⁷ Urbina, I. (2011, August 4). A tainted water well, and concern there may be more. Retrieved from <http://www.nytimes.com/2011/08/04/us/04natgas.html>

⁴⁵⁸ U.S. Environmental Protection Agency. (1987). *Report to Congress: Management of wastes from the exploration, development, and production of crude oil, natural gas, and geothermal energy* (Rep.). 4-22, 4-23. Retrieved from <http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=20012D4P.PDF>

⁴⁵⁹ Horwitt, D. (2011, August 3). Cracks in the facade. *Environmental Working Group*. Retrieved from <http://www.ewg.org/research/cracks-façade>

⁴⁶⁰ Levy, M. (2011, May 18). DEP fines Chesapeake \$1 million. *Pressconnects.com*. Retrieved from <http://www.pressconnects.com/viewart/20110517/NEWS01/105170345/DEP-fines-Chesapeake-1-million>

⁴⁶¹ Osborn, S. G., Vengosh, A., Warner, N. R., & Jackson, R. B. (2011). Methane contamination of drinking water accompanying gas-well drilling and hydraulic fracturing. *Proceedings of the National Academy of Sciences*, 108, 8172-8176. doi: 10.1073/pnas.1100682108

⁴⁶² Duke University. (2011). Methane levels 17 times higher in water wells near hydrofracking sites, study finds. *ScienceDaily*. Retrieved from <http://www.sciencedaily.com/releases/2011/05/110509151234.htm>

⁴⁶³ The Associated Press. (2011, April 22). Crews stop flow of drilling fluid from Pennsylvania well. *Syracuse.com*. Retrieved from http://www.syracuse.com/news/index.ssf/2011/04/crews_stop_flow_of_drilling_fl.html

chemicals that they themselves cannot identify.”⁴⁶⁴ These findings were reported in the *New York Times*.⁴⁶⁵

- January 2011 – A team of scientists led by a University of Central Arkansas researcher called attention to the threat posed to surface waters by rapidly expanding shale gas development, noting a lack of data collection accompanying the rush to drill. “Gas wells are often close to surface waters that could be impacted by elevated sediment runoff from pipelines and roads, alteration of stream flow as a result of water extraction, and contamination from introduced chemicals or the resulting wastewater.”⁴⁶⁶
- January 31, 2011 – As part of a year-long investigation into hydraulic fracturing and its potential impact on water quality, U.S. Representatives Henry Waxman (D-Calif.), Edward Markey (D-Mass.) and Diana DeGette (D-Colo.) reported that “between 2005 and 2009, oil and gas service companies injected 32.2 million gallons of diesel fuel or hydraulic fracturing fluids containing diesel fuel in wells in 19 states.” Furthermore, revealing apparent widespread violation of the Safe Drinking Water Act, the investigation found that no oil and gas service companies had sought—and no state or federal regulators had issued—permits for the use of diesel fuel in hydraulic fracturing.⁴⁶⁷
- April 29, 2010 – In 2010, the Colorado Oil and Gas Conservation Commission fined Occidental Petroleum Corporation (OXY) USA a record \$390,000 for an incident of pollution, discovered in 2008, when its drilling wastes leaked through an unlined pit, contaminated two springs with benzene, and polluted other nearby water sources. In addition, the regulators separately fined OXY USA \$257,400 for a nearby case of pollution, also discovered in 2008, in which a torn liner in a pit caused drilling waste fluids to leak out and contaminate two springs with benzene.⁴⁶⁸
- June 5, 2009 – A leaking pipe carrying fracking waste in Washington County, Pennsylvania, polluted a tributary of Cross Creek Lake, killing fish, salamanders, crayfish, and aquatic insect life in approximately three-quarters of a mile of the stream.⁴⁶⁹

⁴⁶⁴ Waxman, H. A., Markey, E. J., & DeGette, D. (2011, April 18). Committee on Energy & Commerce (U.S.A., Congress, Committee on Energy & Commerce). Retrieved from <http://democrats.energycommerce.house.gov/sites/default/files/documents/Hydraulic-Fracturing-Chemicals-2011-4-18.pdf>

⁴⁶⁵ Urbina, I. (2011, April 17). Chemicals were injected into wells, report says. *The New York Times*. Retrieved from <http://www.nytimes.com/2011/04/17/science/earth/17gas.html>

⁴⁶⁶ Entekin, S., Evans-White, M., Johnson, B., & Hagenbuch, E. (2011). Rapid expansion of natural gas development poses a threat to surface waters. *Frontiers in Ecology and the Environment*, 9(9), 503-511. doi: 10.1890/110053

⁴⁶⁷ Waxman, H. A., Markey, E. J., & DeGette, D. (2011, January 31). *Committee on Energy & Commerce* (U.S.A., Congress, Committee on Energy & Commerce). Retrieved from <http://democrats.energycommerce.house.gov/index.php?q=news/waxman-markey-and-degette-investigation-finds-continued-use-of-diesel-in-hydraulic-fracturing-f>

⁴⁶⁸ Webb, D. (2010, April 29). Record fine, second one against Oxy approved. *Grand Junction Sentinel*. Retrieved from <http://www.gjsentinel.com/news/articles/record-fine-second-one-against-oxy-approved>

⁴⁶⁹ Pittsburgh Post-Gazette. (2009, June 5). Waste from Marcellus shale drilling in Cross Creek Park kills fish. *Pittsburgh Post-Gazette*. Retrieved, from <http://www.post-gazette.com/washington/2009/06/05/Waste-from-Marcellus-shale-drilling-in-Cross-Creek-Park-kills-fish/stories/200906050136>

- April 26, 2009 – Officials in three states linked water contamination and methane leaks to gas drilling. Incidents included a case in Ohio where a house exploded after gas seeped into its water well and multiple cases of exploding drinking water wells in Dimock, Pennsylvania.⁴⁷⁰
- November 13, 2008 – *ProPublica* reported more than 1,000 cases of drilling-related contamination documented by courts and state and local governments in Colorado, New Mexico, Alabama, Ohio, and Pennsylvania.⁴⁷¹
- December 15, 2007 – In Bainbridge, Ohio, a gas well that was improperly cemented and subsequently fractured by Ohio Valley Energy Systems Corporation allowed natural gas to migrate outside of the well, causing a home to explode. In addition, 23 nearby water wells were contaminated, two of which were located more than 2,300 feet from the drilling site.^{472, 473, 474}

⁴⁷⁰ Lustgarten, A. (2009, April 26). Officials in three states pin water woes on gas drilling. *ProPublica*. Retrieved from <http://www.propublica.org/article/officials-in-three-states-pin-water-woes-on-gas-drilling-426>

⁴⁷¹ Lustgarten, A. (2008, November 13). Buried secrets: Is natural gas drilling endangering U.S. water supplies? *ProPublica*. Retrieved from <http://www.propublica.org/article/buried-secrets-is-natural-gas-drilling-endangering-us-water-supplies-1113>

⁴⁷² Ohio Department of Natural Resources Division of Mineral Resources Management. (2008, September 1). *Report on the investigation of the natural gas invasion of aquifers in Bainbridge Township of Geauga County, Ohio*. (Rep.). Retrieved from <http://www.ohiodnr.com/mineral/bainbridge/tabid/20484/default.aspx>

⁴⁷³ Bair, E. S., Freeman, D. C., & Senko, J. M. (2010, June). *Expert panel technical report, subsurface gas invasion Bainbridge Township, Geauga County, Ohio* (Rep.). Retrieved from <http://oilandgas.ohiodnr.gov/portals/oilgas/pdf/bainbridge/DMRM%2000%20Title%20Page,%20Preface,%20Acknowledgements.pdf>

⁴⁷⁴ Ohio Department of Natural Resources, Order Number 2009-17 (Apr. 14, 2009) (see attachments A, B).

Inherent engineering problems that worsen with time

Studies show that many oil and gas wells leak, allowing for the migration of natural gas and potentially other substances into groundwater and/or the atmosphere. About five percent of wells leak immediately, 50 percent leak after 15 years, and 60 percent leak after 30 years. The act of fracking itself can redistribute stress and create underground pathways for fluid migration, which, in turn, can communicate with pathways caused by deterioration of cement in aging well casings, leading to both groundwater contamination and atmospheric emissions.

The problem of leaking wells, first identified by industry, has no known solution. Data from Pennsylvania's Department of Environmental Protection (DEP) agree, showing over nine percent of shale gas wells drilled in the state's northeastern counties leaking within the first five years. Leaks pose serious risks, including potential loss of life or property from explosions and migration of gas and other harmful chemicals into drinking water supplies. Methane leaking into aquifers can, under some conditions, be transformed by bacteria into hydrogen sulfide and other poisonous byproducts. Microbes from deep shale formations can likewise generate sulfides contributing, over time, to corrosion of pipes and casings.

There is no evidence to suggest that the problem of cement and well casing impairment is abating. Industry has no solution for rectifying the chronic problem of well casing/cement failures and resulting leakage. Plugging old, inactive wells is an imperfect solution because, as research shows, the cement plugs themselves degrade over time and because many wells leak from outside the well casing.

- April 19, 2018 – As part of a major review, a University of Aberdeen team of researchers assessed the various underground pathways by which fracking creates methane leaks and concluded that aging well casings are a leading cause of methane leaks from drilling and fracking operations. While the intersection of fracture propagation with naturally present geological faults in the subsurface is another potential route for methane leakage, the more important route is the intersection of fracture propagation with other wells with old cement. “The major sources of methane leakage related to shale gas activities are the intersections of hydraulic fractures with abandoned oil and gas wells which have a reduced mechanical well integrity due to cement degradation. As a result, the stress redistributions caused by hydraulic fracturing and the deterioration of cement in abandoned wells with age allow migration pathways to be created easily, leading to both groundwater contamination and atmospheric emissions.” Plugging wells is an imperfect solution because the cement commonly used for this process itself degrades with time, especially in the presence of carbon dioxide. “No concrete method [has been] established for the methane leakage mitigation from shale gas wells.”⁴⁷⁵

⁴⁷⁵ Yudhowijoyo, A., Rafati, R., Haddad, A. S., Raja, M. S., & Hamidi, H. (2018). Subsurface methane leakage in unconventional shale gas reservoirs: A review of leakage pathways and current sealing techniques. *Journal of Natural Gas Science and Engineering*, 54, 309-319. doi: 10.1016/j.jngse.2018.04.013

- November 23, 2017 – An investigative journalist from *The Tyee* in Vancouver obtained a copy of a 2013 report from British Columbia’s Oil and Gas Commission warning about hundreds of uncontrolled methane leaks from shale gas wells located in the northern Rocky Mountain range near Fort Nelson. The commission’s report, never shared with the public or with elected officials, remained an internal document until it was uncovered by the newspaper. Cornell University engineer Anthony Ingraffea, quoted in the story, said the report’s findings served as another confirmation that wells leak badly and inevitably over time. “What do they expect from underground operations such as these, total obedience to design intent? Why are operators and regulators around the world seemingly surprised when things go wrong underground, and in so many ways, and so often?” Ingraffea said.^{476, 477}
- July 5, 2017 – A team of researchers led by microbiologists from Ohio State University investigated bacteria from hydraulically fractured shale by sampling fracking wastewater from a well drilled in the Utica shale. The dominant microorganism was a bacterium that generates sulfides, which can contribute to corrosion of well casings. “The impact of microbial metabolism within these environments is poorly understood. . . . These findings emphasize the potential detrimental effects that could arise from thiosulfate-reducing microorganisms in hydraulically fractured shales, which are undetected by current industry-wide corrosion diagnostics.”⁴⁷⁸
- April 1, 2017 – The rapid depletion of fracked wells requires drilling ever more wells to keep up with production. As time goes by, wells become more densely packed into a drilling section. Decreasing distances between wells increases the risk of inter-well communication, which occurs when the pumping of fracking fluid into one well affects a nearby well. According to an analysis in the *Journal of Petroleum Technology*, these so called “frack hits” are unpredictable, uncontrolled, and can be violent, damaging tubing, casings, and well integrity. In some cases, frack hits involve blowouts of fracking fluid. The industry has no solution for this increasingly common problem.⁴⁷⁹ Indeed, as a sequel report describes, operators use frack hits as a tool for revealing how tightly wells can be spaced in a drilling section to maximize extraction—even while acknowledging inherent safety risks. A drilling section with no frack hits at all is presumed to lack sufficient well density for optimal “economic recovery.”⁴⁸⁰
- July 9, 2015 – As part of a larger examination of the potential health and environmental impacts of fracking in California, the California Council on Science and Technology

⁴⁷⁶ Nikiforuk, A. (2017, November 23). Despite what politicians say, hundreds of BC gas wells leak methane. *The Tyee*. Retrieved from <https://thetyee.ca/News/2017/11/23/Hundreds-of-BC-Gas-Wells-Leak-Meth/>

⁴⁷⁷ BC Oil and Gas Commission. (2013, December). *Gas migration preliminary investigation report*. Retrieved from <https://www.bcogc.ca/node/14620/download>

⁴⁷⁸ Booker, A. E., Borton, M. A., Daly, R. A., Welch, S. A., Nicora C. D., Hoyt, D. W., . . . Wilkins, M. J. (2017). Sulfide generation by dominant Halanaerobium microorganisms in hydraulically fractured shales. *mSphere*, 2(4), e00257-17. doi: 10.1128/mSphereDirect.00257-17

⁴⁷⁹ Jacobs, T. (2017, April 1). Oil and gas producers find frac hits in shale wells a major challenge. *Journal of Petroleum Technology*. Retrieved from <https://www.spe.org/en/jpt/jpt-article-detail/?art=2819>

⁴⁸⁰ Jacobs, T. (2017, November 1). Frac hits reveal well spacing may be too tight, completion volumes too large. *Journal of Petroleum Technology*. Retrieved from <https://www.spe.org/en/jpt/jpt-article-detail/?art=3510>

(CCST) documented cases of well failures triggered by underground movements that caused well casings to shear. Sheared well casings can allow gas and fluids from the fracking zone to migrate to overlying aquifers. The CCST team identified several mechanisms by which casing shears can occur in California as oil wells age: surface subsidence, heaving, reservoir compaction, and earthquakes. Prolonged drought can also damage the integrity of well casings: as groundwater levels fall, landforms can sink and contribute to casing shear.⁴⁸¹

- June 30, 2015 – According to the New York State Department of Environmental Conservation (NYS DEC) Findings Statement, “there is a risk that well integrity can fail, especially over time, and questions have arisen about whether high-volume hydraulic fracturing can cause seismic changes which could potentially result in fracturing fluid migration through abandoned wells or existing fissures and faults. Thus, high-volume hydraulic fracturing could result in significant adverse impacts to water resources from well construction and fracturing fluid migration.”⁴⁸²
- June 4, 2015 – As part of a draft assessment of fracking’s impact on drinking water, the U.S. Environmental Protection Agency (EPA) examined cases of water contamination across the United States and concluded that “construction issues, sustained casing pressure, and the presence of natural faults and fractures can work together to create pathways for fluids to migrate toward drinking water resources.” Fracking older wells poses additional risks, the draft study notes, because aging itself “can contribute to casing degradation, which can be accelerated by exposure to corrosive chemicals, such as hydrogen sulfide, carbonic acid, and brines” and because many older wells were never designed to withstand the high pressures and stress of fracking operations. The EPA estimates that 6 percent of the 23,000 U.S. oil and gas wells (= 1,380 wells) first fracked in 2009 or 2010 were drilled more than ten years earlier.⁴⁸³
- December 2, 2014 – Problems with structural integrity have been documented in a well at the only hydraulically fractured site in the United Kingdom. Email messages obtained under freedom of information laws reveal that problems with wellbore integrity emerged in April of 2014 and attempts were made to remediate the problem, although nothing was reported at that time to regulators. The drilling company, Cuadrilla Resources, continues to deny that any problems exist with the well, emphasizing that “no leak of fluids” occurred and that “the issue” was resolved during the abandonment process. Cuadrilla

⁴⁸¹ Stringfellow, W. T., Cooley H., Varadharajan, C., Heberger, M., Reagan, M. T., Domen, J.K., Sandelin, W. ... Houseworth, J. E. (2015, July 9). Volume II, Chapter 2: Impacts of well stimulation on water resources. In: *An Independent Scientific Assessment of Well Stimulation in California*. California Council on Science and Technology, Sacramento, CA. Retrieved from <http://ccst.us/publications/2015/vol-II-chapter-2.pdf>

⁴⁸² New York State Department of Environmental Conservation. (2015, June 30). *Final supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program: Regulatory program for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus Shale and other low-permeability gas reservoirs, findings statement*. Retrieved from http://www.dec.ny.gov/docs/materials_minerals_pdf/findingstatevhf62015.pdf

⁴⁸³ U.S. Environmental Protection Agency (2015, June 30). *Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources*, executive summary (draft). Retrieved from http://www2.epa.gov/sites/production/files/2015-06/documents/hf_es_erd_jun2015.pdf

had previously been reprimanded for failing to disclose a more minor deformation in the well casing. The well was abandoned at the end of last year, following two earthquakes in 2011, which scientists determined to have been caused by fracking at the site.⁴⁸⁴

- August 11, 2014 – Researchers affiliated with multiple universities and with the Los Alamos National Laboratory summarized recent field observations of wellbore-integrity failure, concluding that, because at least some well failures are not identified, reported barrier failure rates of 1-10 percent of wells and reported rates of groundwater contamination of 0.01-0.1 percent of wells constitute a “lower bound” for possible environmental problems. Citing hydraulic fracturing, as well as temperature and pressure changes, as operations that can induce pathways for leaks, the authors point out that few studies have considered the very-long-term fate (“>50 years”) of wellbore systems. They include “whether unconventional resource development alters the frequency of well integrity failures” as a critical topic for future research.⁴⁸⁵
- July 30, 2014 – Based on records obtained from Pennsylvania’s DEP, Scranton’s *Times-Tribune* reported that five natural gas wells in Bradford County have leaked methane for years because of persistent casing and cement problems. In the most recent violation, a PA-DEP inspector found combustible gas flowing through vents connected to the cement between layers of pipe. The agency issued a notice of violation for each well, saying combustible gas outside the well’s surface casing violates state regulations. Each of the wells has four layers of steel casing, but nothing prevents leaking (stray) methane from flowing into the atmosphere. No evidence of water contamination has yet been seen. None of the wells have produced any gas for sale.⁴⁸⁶
- June 30, 2014 – A study published in *Proceedings of the National Academy of Sciences* by a Cornell University research team projected that over 40 percent of shale gas wells in Northeastern Pennsylvania will leak methane into groundwater or the atmosphere over time. Analyzing more than 75,000 state inspections of more than 41,000 oil and gas wells in Pennsylvania since 2000, the researchers identified high occurrences of casing and cement impairments inside and outside the wells. A comparative analysis showed that newer, unconventional (horizontally fracked) shale gas wells were leaking at six times the rate of conventional (vertical) wells drilled over the same time period. The leak rate for unconventional wells drilled after 2009 was at least six percent, and rising with time. In the state’s northeastern counties between 2000 and 2012, over nine percent of shale gas wells drilled leaked within the first five years.⁴⁸⁷ The study also discovered that over

⁴⁸⁴ Bryant, B. (2014, December 2). The only fracked site in the United Kingdom suffered structural failure. *Vice News*. Retrieved from <https://news.vice.com/article/the-only-fracking-site-in-the-united-kingdom-suffered-structural-failure>

⁴⁸⁵ Jackson R. B., Vengosh, A., Carey, J. W., Davies, R. J., Darrah, T. H., O’Sullivan, F., & Pétron, G. (2014). The environmental costs and benefits of fracking. *Annual Review of Environment and Resources*, 39, 327–62. doi: 10.1146/annurev-environ-031113-144051

⁴⁸⁶ Gibbons, B. (2014, July 30). Five gas wells leaked methane for years. *Times-Tribune*. Retrieved from <http://thetimes-tribune.com/news/five-gas-wells-leaked-methane-for-years-1.1727537>

⁴⁸⁷ Ingraffea, A., Wells, M., Santoro, R., & Shonkoff, S. (2014). Assessment and risk analysis of casing and cement impairment in oil and gas wells in Pennsylvania, 2000–2012. *Proceedings of the National Academy of Sciences*. Retrieved from <http://www.pnas.org/content/early/2014/06/25/1323422111.abstract>

8,000 oil and gas wells drilled since 2000 had not received a facility-level inspection. This study helps explain the results of earlier studies that documented elevated levels of methane in drinking water aquifers located near drilling and fracking operations in Pennsylvania and points to compromised structural integrity of well casings and cement as a possible mechanism.

- May 22, 2014 – In a 69-page report, University of Waterloo researchers warned that natural gas seeping from 500,000 wellbores in Canada represents “a threat to environment and public safety“ due to groundwater contamination, greenhouse gas emissions, and explosion risks wherever methane collects in unvented buildings and spaces. The report found that 10 percent of all active and suspended gas wells in British Columbia now leak methane. Additionally, the report found that some hydraulically fractured shale gas wells in that province have become “super methane emitters” that spew as much as 2,000 kilograms of methane a year.^{488, 489}
- May 1, 2014 – Following a comprehensive review of evidence, the Council of Canadian Academies identified inherent problems with well integrity as one of its top concerns about unconventional drilling and fracking. According to one expert panel, “the greatest threat to groundwater is gas leakage from wells from which even existing best practices cannot assure long-term prevention.”⁴⁹⁰ Regarding their concerns related to well integrity and cement issues, the panel wrote:

Two issues of particular concern to panel members are water resources, especially groundwater, and GHG emissions. Both related to well integrity.... Natural gas leakage from improperly formed, damaged, or deteriorated cement seals is a long-recognized yet unresolved problem Leaky wells due to improperly placed cement seals, damage from repeated fracturing treatments, or cement deterioration over time, have the potential to create pathways for contamination of groundwater resources and to increase GHG emissions.

They further explain:

Cement may crack, shrink, or become deformed over time, thereby reducing the tightness of the seal around the well and allowing the fluids and gases ... to escape into the annulus between casing and rock and thus to the surface.... The challenge of ensuring a tight cement seal [will] be greater for shale gas wells that are subjected to repeated pulses of high pressure during the hydraulic fracturing process than for conventional gas wells. This pressure stresses the casing and therefore the cement that isolates the well from surrounding formations

⁴⁸⁸ Dusseault, M. B., Jackson, R. E., & MacDonald, D. (2014, May 22). Towards a road map for mitigating the rates and occurrences of long-term wellbore leakage. Geofirma Engineering, Ltd. Retrieved from http://geofirma.com/wp-content/uploads/2015/05/lwp-final-report_compressed.pdf

⁴⁸⁹ Nikiforuk, A. (2014, June 5). Canada's 500,000 leaky energy wells: 'Threat to public' *The Tyee*. Retrieved from <http://www.thetyee.ca/News/2014/06/05/Canada-Leaky-Energy-Wells/>

⁴⁹⁰ Council of Canadian Academies. (2014, May 1). *Environmental Impacts of Shale Gas Extraction in Canada: the Expert Panel on Harnessing Science and Technology to Understand the Environmental Impacts of Shale Gas Extraction*. Retrieved from <http://bit.ly/1nNicuf>

repeatedly.

- January 8, 2013 – According to state inspections of all 6,000 wells drilled in Pennsylvania’s Marcellus Shale before 2013, six to ten percent of them leaked natural gas, with the rate of leakage increasing over time. The rate was six percent in 2010 (97 well failures out of 1,609 wells drilled); 7.1 percent in 2011 (140 well failures out of 1,972 wells drilled); and 8.9 percent in 2012 (120 well failures out of 1,346 wells drilled).⁴⁹¹ These data include wells that were cited for leakage violations, and wells that were noted to be leaking by inspectors but which had not been given violations. The NYS DEC forecasts that 50,000 wells could be drilled over the life of the Marcellus Shale play. If they fail at the same rate as wells in Pennsylvania, 4,000 wells would fail and leak in New York almost immediately.⁴⁹²
- March 2009 – A study published by the Society of Petroleum Engineers of more than 315,000 oil, gas, and injection wells in Alberta, Canada, found that 4.5 percent of the wells had unintended gas flow to the surface. In one designated area, officials required testing for gas migration outside the well casings in addition to routine testing for gas leaks within the rings of steel casings (annuli). Within this special testing zone, 15.5 percent of wells (3,205 of 20,725) leaked gas, and the incidence of gas leaks was four times percent higher in horizontal or deviated wells than in vertical wells.⁴⁹³
- Autumn 2003 – Schlumberger, one of the world’s largest companies specializing in hydraulic fracturing and other oilfield services, reported in its in-house publication, *Oilfield Review*, that more than 40 percent of approximately 15,500 wells in the outer continental shelf area in the Gulf of Mexico were leaking gas. These included actively producing wells, in addition to shut-in and temporarily abandoned wells. In many cases, the gas leaked through the spaces (annuli) between layers of steel casing that drilling companies had injected with cement precisely to prevent such gas leaks. Leakage rates increased dramatically with age: about five percent of the wells leaked immediately; 50 percent were leaking after 15 years; and 60 percent were leaking after about 30 years.⁴⁹⁴ Gas leaks pose serious risks including loss of life from explosions and migration of gas and associated contaminants into drinking water supplies. Leaks also allow the venting of raw methane into the atmosphere where it acts as a powerful greenhouse gas.
- November 2000 – Maurice Dusseault, a specialist in rock mechanics at the University of

⁴⁹¹ Ingraffea, A. R. (2013). Some scientific failings within high volume hydraulic fracturing proposed regulations. Retrieved from

http://www.psehealthyenergy.org/data/NYS_DEC_Proposed_REGS_comments_Ingraffea_Jan_2013.pdf

⁴⁹² New York State Department of Environmental Conservation. (2011). *Supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program, well permit issuance for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus shale and other low-permeability gas reservoirs* (2-1, Rep.).

⁴⁹³ Watson, T. L., & Bachu, S. (2009). Evaluation of the potential for gas and CO₂ leakage along wellbores, Society of Petroleum Engineers. *SPE Drilling & Completion*, 24, 115-126. doi: 10.21.18/106817-PA

⁴⁹⁴ Brufatto, C. (2003). From mud to cement - Building gas wells. *Oilfield Review*, 15(3). Retrieved from http://www.slb.com/resources/publications/industry_articles/oilfield_review/2003/or2003aut06_building_gas_wells.aspx

Waterloo in Ontario, and two co-authors presented a paper published by the Society of Petroleum Engineers, in which they reported that oil and natural gas wells routinely leak gas through cracks in their cement casings, likely caused by cement shrinkage over time and exacerbated by upward pressure from natural gas. According to their paper, in Alberta, it is common for wells to leak natural gas into aquifers. “Because of the nature of the mechanism, the problem is unlikely to attenuate,” they wrote, “and the concentration of the gases in the shallow aquifers will increase with time.”⁴⁹⁵

⁴⁹⁵ Dusseault, M. B., Gray, M. N., & Nawrocki, P. A. (2000). Why oil wells leak: Cement behavior and long-term consequences. *Society of Petroleum Engineers*. Retrieved from <http://www.hydrorelief.org/frackdata/references/65704543-Casing-Leaks.pdf>

Radioactive releases

Exemptions from federal hazardous waste laws mean that no national regulatory framework exists for handling the radioactive materials in solid and liquid fracking waste. Instead, regulation is the responsibility of individual states, which vary widely in their approaches. High levels of radiation documented in fracking wastewater from many shale formations raise special concerns in terms of impacts to groundwater and surface water. Measurements of radium in fracking wastewater in New York and Pennsylvania, from the particularly radioactive Marcellus Shale, have been as high as 3,600 times the regulatory limit for drinking water, as established by the U.S. Environmental Protection Agency (EPA). Studies have found toxic levels of radiation in Pennsylvania waterways even after fracking wastewater was disposed of through an industrial wastewater treatment plant.

A study found high levels of radon in buildings located in heavily drilled areas of Pennsylvania, with levels of radon rising since the start of the fracking boom. Unsafe levels of radon and its decay products in natural gas produced from the Marcellus Shale may also contaminate pipelines and compressor stations, as well as pose risks to end-users when allowed to travel into homes. Increasing evidence documents illegal, haphazard dumping of radioactive fracking waste, along with its disposal in municipal landfills not engineered to contain radioactivity. Drill cuttings—the pulverized rock pulled up during the drilling process—are a special concern as this form of solid waste, generated in prodigious amounts, is typically disposed of in municipal landfills lacking special protections for hazardous waste. Radioactivity in drill cuttings has been shown to exceed, in some cases, the regulatory limits for landfills that accept fracking waste. New research suggests that the chemical composition of fracking fluid itself helps to mobilize radioactive materials in the shale.

- March 15, 2019 – Due to a 1980 hazardous waste exemption from the Resource Conservation and Recovery Act (RCRA), drill cuttings from oil and gas fields became exempt from federal oversight, leaving it to states to regulate the disposal of this solid waste stream. A team of researchers measured radioactivity in drill cuttings extracted from Pennsylvania wells and found levels of radium-226 and radium-228 that exceeded the regulatory limits for landfills in Ohio and New York, two states where there are regulatory limits and that accept fracking waste from other states, including from Pennsylvania. The authors recommended rescinding the RCRA exemption for hazardous fracking waste to better protect public health.⁴⁹⁶
- August 3, 2018 – A two-part study by Dartmouth College researchers investigated the source of radium in fracking wastewater from Marcellus Shale wells. By comparing the isotopic ratios, they showed that the high salinity of the wastewater is responsible for extracting radium from the shale. “Experimental results and wastewater data together provide a coherent picture, that the distinctive Ra isotopic signature of Marcellus wastewaters results from contemporaneous water-rock interactions that promote

⁴⁹⁶ Swiedler, E. W., Muehlenbachs, L. A., Chu, Z., Shih, J.-S., & Krupnick, A. (2019). Should solid waste from shale gas development be regulated as hazardous waste? *Energy Policy*, 129, 1020-1033. doi: 10.1016/j.enpol.2019.02.016

desorption of ²²⁶Ra from organics during hydraulic fracturing.”⁴⁹⁷ In the second part of the study, the researchers used mass balance and isotope mixing models to attribute both the extreme salinity and the presence of radium in liquid fracking waste to the progressive, hydrologic enrichment of injected fluids during hydraulic fracturing.⁴⁹⁸ In sum, the chemical composition of fracking fluid itself and its interactions with black shale during the fracking process combine to make fracking waste radioactive. Explaining these findings in a news article, co-author Makul Sharam said, “Radium is sitting on mineral and organic surfaces within the fracking site waiting to be dislodged. When water with the right salinity comes by, it takes it on the radioactivity and transports it.”⁴⁹⁹

- February 19, 2018 – A study conducted in the Bakken Shale region of North Dakota used a multivariate regression model to predict radium-226 levels in fracking wastewater based on levels of other elements (barium, strontium, calcium). Their simulation model gave results that align with the extremely limited actual data based on direct measurements of radionuclides in Bakken Shale wastewater. The research team then used their model to predict potential harm to human health based on spills into surface water that is issued as a source of drinking water, irrigation, and recreational fishing. Even in the best-case scenario, using simulated concentrations on the low end, the results indicated that “there is potential risk to human health” in North Dakota due to radium-226 in fracking wastewater spills. This model can be used for any area where oil and gas waste is produced. “Overall, the results presented in this study can be treated as a warning and a reference to conduct further investigations.”⁵⁰⁰
- February 6, 2018 – A research team from City University of New York School of Public Health and Health Policy surveyed the various state-based regulations and state licensing requirements governing the disposal of radioactive waste from oil and gas waste streams. They found that 17 states had drafted express regulations to reduce exposure to radiation from oil and gas waste. States with active oil and gas drilling that lack such regulations “may leave the public and workers susceptible to adverse health effects from radiation.” Among the authors’ policy recommendations: due to accumulation of radioactivity on equipment, future studies should explore impacts on workers; exposed workers should wear badges to monitor exposures; worker exposures should be limited by shift changes; regulations across states should be harmonized to prevent cross-state dumping of large

⁴⁹⁷ Landis, J. D., Sharma, M., Renock, D., & Niu, D. (2018). Rapid desorption of radium isotopes from black shale during hydraulic fracturing. 1. Source phases that control the release of Ra from Marcellus Shale. *Chemical Geology*, 496, 1-13. doi: 10.1016/j.chemgeo.2018.06.013

⁴⁹⁸ Landis, J. D., Sharma, M., & Renock, D. (2018). Rapid desorption of radium isotopes from black shale during hydraulic fracturing. 2. A model reconciling radium extraction with Marcellus wastewater production. *Chemical Geology*, 500, 194-206. doi: 10.1016/j.chemgeo.2018.08.001

⁴⁹⁹ Dartmouth College. (2018, September 18). How slick water and black shale in fracking combine to produce radioactive waste. *Science Daily*. Retrieved from <https://www.sciencedaily.com/releases/2018/09/180918154831.htm>

⁵⁰⁰ Torres, L., Yadav, O. P., & Khan, E. (2018). Risk assessment of human exposure to Ra-226 in oil produced water from the Bakken Shale. *Science of the Total Environment*, 626, 867-874. doi: 10.1016/j.scitotenv.2018.01.171

amounts of radioactive solid waste and assure protection of the public from the risk of radiation from exposure to oil and gas drilling wastes.⁵⁰¹

- January 4, 2018 – A research team from Duke and Pennsylvania State universities collected stream sediments upstream and downstream from three disposal sites in Pennsylvania that receive oil and gas wastewater, treat it, and release it into surface water. While the practice of treating and dumping liquid waste from fracking operations into Pennsylvania streams largely ended in 2011, these three facilities continue to treat and release waste from conventional drilling operations. The researchers consistently detected elevated radioactivity in stream sediments in the vicinity of the outfall compared to upstream areas. The ratios of radium isotopes to their decay products showed that some of the radium had accumulated in the sediments in recent years—after discharges of fracking waste had been halted. Hence, radioactivity from conventionally drilled wells is the likely source of the high levels of radium in sediments downstream from these three treatment plants. Consequently, policies that prohibit disposal only of fracking waste fluids “are not adequate in preventing radioactive contamination in sediments at disposal sites.” Permission to treat and release any type of oil and gas wastewater via centralized waste treatment facilities “should be reconsidered.”⁵⁰²
- September 22, 2017 – State health regulators confirmed that unknown quantities of radioactive waste from drilling and fracking operations have been illegally buried in Colorado landfills not permitted to accept it.⁵⁰³
- November 23, 2016 – University of Iowa researchers evaluated radioactive materials—uranium, thorium, radium, lead, and polonium isotopes—from drill cutting samples extracted from a single well drilled in northern Pennsylvania. They found complex patterns of vertical stratification. For example, the deep drill cuttings had significantly more uranium (U) than the cuttings removed from shallow portions of the well. Noting that virtually all drill cutting waste from the Marcellus Shale is deposited in landfills, the authors examined the stability of the various radioactive materials by simulating different conditions of landfill leaching. The results suggested some environmental mobility of radionuclides in drill cuttings. In particular, as acidity increased, radionuclide leaching increased, with ²³⁸U and ²³⁴U being the most leachable radionuclides. The authors concluded, “Although previous studies have suggested that [radioactive materials] in drill cuttings pose a minimal health risk to the general public when deposited in landfills, our

⁵⁰¹ Geltman, E. A. G., & LeClair, N. (2018). Variance in state protection from exposure to NORM and TENORM wastes generated during unconventional oil and gas operations: Where we are and where we need to go. *New Solutions*, 28(2), 240-261. doi: 10.1177/1048291118755387

⁵⁰² Lauer, N. E., Warner, N. R., & Vengosh, A. (2018). Sources of radium accumulation in stream sediments near disposal sites in Pennsylvania: Implications for disposal of conventional oil and gas wastewater. *Environmental Science & Technology*, 52, 955-962. doi: 10.1021/acs.est.7b04952

⁵⁰³ Finley, B. (2017, September 22). Colorado landfills are illegally burying low-level radioactive waste from oil and gas industry, Denver Post learns. *Denver Post*. Retrieved from <https://www.denverpost.com/2017/09/22/colorado-landfills-illegally-burying-radioactive-waste-oil-gas/>

results indicate that Marcellus Shale drill cuttings warrant further radiochemical investigation.”⁵⁰⁴

- April 27, 2016 – Duke University researchers who studied oil and gas wastewater (“brine”) spills reported that “the water contamination from brine spills is remarkably persistent in the environment, resulting in elevated levels of salts and trace elements that can be preserved in spill sites for at least months to years” In addition, radioactivity was elevated in soil and sediment sampled at spill sites, indicating that radium had accumulated in the soils of spill-affected areas.⁵⁰⁵ The bigger the spill, the higher the soil radioactivity level. Study author Avner Vengosh told *InsideClimate News*, “We found even if you take away the spill water... you still left behind the legacy of radioactivity in the soils,” where it can linger for thousands of years.⁵⁰⁶
- March 10, 2016 – Louisville’s *Courier-Journal* reported on illegal dumping of radioactive oil and gas drilling wastes in two Kentucky landfills. Landfill operators in Greenup and Estill counties were issued violation notices for failing to “accurately characterize the waste for what it was, allowing what’s considered an illegal release of a hazardous material into the environment.” The illegal dumping at the Greenup County landfill alone consisted of 369 tons of radioactive drilling waste.⁵⁰⁷
- February 26, 2016 – Radioactive oil and gas waste from fracking operations in Ohio, Pennsylvania, and West Virginia was illegally sent to Estill County, Kentucky’s Blue Ridge Landfill. The radioactive level of the material that was buried “was at least 340 times more than the amount that is allowed to be buried at a solid waste landfill,” according to WKYT in Lexington. WKYT reported that Estill County leaders would “fight ‘tooth and toenail’ to get the bottom of how low-level radioactive waste ended up in a county landfill,” and do its own testing at the landfill and nearby schools.⁵⁰⁸
- November 23, 2015 – Absence of federal oversight and, in some cases, a total lack of state regulations for handling radioactive oil and gas waste was the topic of a report in *High Country News*, which detailed the regulatory situation in six Western states: Colorado, Idaho, Montana, North Dakota, South Dakota, and Wyoming. North Dakota alone generates an estimated 70 tons a day of radioactive oil and gas waste. “Because the waste is often too radioactive to be disposed of in landfills, it sometimes gets dumped

⁵⁰⁴ Eitheim, E. S., May, D., Forbes, T. Z., & Nelson, A. W. (2016). Disequilibrium of naturally occurring radioactive materials (NORM) in drill cuttings from a horizontal drilling operation. *Environmental Science & Technology Letters* 3, 425-29. doi: 10.1021/acs.estlett.6b00439

⁵⁰⁵ Lauer, N. E., Harkness, J. S., & Vengosh, A. (2016). Brine spills associated with unconventional oil development in North Dakota. *Environmental Science & Technology*, 50(10), 5389–5397. doi: 10.1021/acs.est.5b06349

⁵⁰⁶ Hirji, Z. (2016, April 29). Persistent water and soil contamination found at N.D. wastewater spills. *InsideClimate News*. Retrieved from <http://insideclimatenews.org/news/29042016/north-dakota-wastewater-spill-water-soil-contamination-radium-selenium-bakken-oil>

⁵⁰⁷ Bruggers, J. (2016, March 10). State begins crackdown on radioactive waste. *Courier-Journal*. Retrieved from <http://www.courier-journal.com/story/tech/science/environment/2016/03/08/state-orders-end-hauling-radioactive-waste/81496490/>

⁵⁰⁸ WKYT. (2016, February, 26). Estill County leaders to fight 'tooth and toenail' over radioactive waste in landfill. WKYT. Retrieved from <http://www.wkyt.com/content/news/Estill-Co-leaders-to-fight-tooth-and-toenail-over-radioactive-waste-in-landfill-370308981.html>

illegally.” Proposed new rules in North Dakota would raise the radioactivity limit for the waste.⁵⁰⁹

- July 8, 2015 – Radium-226 is the dominant radioactive material in flowback water from hydraulically fractured wells in the Marcellus Shale. A Pittsburgh team of researchers studied its fate in three wastewater storage pits in southwestern Pennsylvania over a 2.5-year period of time. They found that radium-226 concentrations increased when flowback water was being reused for additional fracking operations. Also, radium-226 tended to accumulate in the bottom sludge. This sludge could be classified as radioactive solid waste because it exceeded the radium-226 limit for landfill disposal. A risk assessment showed that potential radiation dose equivalent levels around the three fracking waste pits were within the regulatory limit for the general public.⁵¹⁰
- April 9, 2015 – A Johns Hopkins Bloomberg School of Public Health study found that levels of radon in Pennsylvania homes—a region with some of the highest indoor radon concentrations in the US—have been rising since 2004, around the time the fracking industry arrived in the state.⁵¹¹ Radon exposure is the second leading cause of lung cancer worldwide, after cigarette smoking.⁵¹² Researchers found that buildings in counties where the most fracking has taken place in the past decade have had significantly higher radon readings compared with those in low-fracking areas, a difference that did not exist before 2004. Use of well water was associated with 21 percent higher indoor radon concentrations than in buildings using public water sources. This study, the first to define and evaluate the predictors of indoor radon concentrations in Pennsylvania, concluded that radon’s presence was related to geology, water sources, weather, and natural gas drilling.⁵¹³
- April 2, 2015 – A team of toxicologists, geochemists, and radiation scientists led by the University of Iowa analyzed the contribution of various naturally occurring radioactive materials (NORM) to the total radioactivity of fracking waste fluids, finding evidence of long-lived, environmentally persistent radioactive decay products.⁵¹⁴ “NORM is emerging as a contaminant of concern in hydraulic fracturing/unconventional drilling

⁵⁰⁹ Peterson, J. (2015, November 23). States lack rules for radioactive drilling waste disposal. *High Country News*. Retrieved from <http://www.hcn.org/articles/states-lack-rules-for-handling-radioactive-drilling-waste>

⁵¹⁰ Zhang, T., Hammock, R. W., & Vidic, R. D. (2015). Fate of radium in Marcellus Shale flowback water impoundments and assessment of associated health risks. *Environmental Science & Technology* 49, 9347-54. doi: 10.1021/acs.est.5b01393

⁵¹¹ Casey, J. A., Ogburn, E. L., Rasmussen, S. G., Irving, J. K., Pollak, J., Locke, P. A., & Schwartz, B. S. (2015). Predictors of indoor radon concentrations in Pennsylvania, 1989-2013. *Environmental Health Perspectives*. Advance online publication. doi: 10.1289/ehp.

⁵¹² National Cancer Institute (2011, December 6). *Radon and cancer fact sheet*. Retrieved from <http://www.cancer.gov/about-cancer/causes-prevention/risk/substances/radon/radon-fact-sheet>

⁵¹³ Hurdle, J., & Phillips, S. (2015, April 9). New study raises possible link between gas drilling and radon levels. *StateImpact Pennsylvania*. Retrieved from <http://stateimpact.npr.org/pennsylvania/2015/04/09/new-study-raises-possible-link-between-gas-drilling-and-radon-levels/>

⁵¹⁴ Nelson, A. W., Eittrheim, E. S., Knight, A. W., May, D., Mehrhoff, M. A., Shannon, R., . . . Schultz, M.K. (2015). Understanding the radioactive in growth and decay of naturally occurring radioactive materials in the environment: An analysis of produced fluids from the Marcellus Shale. *Environmental Health Perspectives*, 123(7). doi: 10.1289/ehp.1408855

wastes, yet the extent of the hazard is currently unknown.” The study determined that previous testing and study methods likely underestimate radioactivity by focusing only on radium. The researchers developed a new method to accurately predict the concentrations of uranium, thorium, and radium and their alpha-emitting progeny, polonium and lead, in fracking wastewater. They found that, under certain conditions, radioactivity increased over time, due to ingrowth of alpha-emitting radioactive progeny of long-lived parent radionuclides such as radium. The authors warned that these decay products may potentially contaminate recreational, agricultural, and residential areas, and that a more detailed understanding is needed of how radionuclides accumulate in higher organisms. In an accompanying article in *Environmental Health Perspectives*, James Burch, a University of South Carolina epidemiologist who was not involved in the study, said that fracking activities and wastewater disposal, which often take place in close proximity to where people live and work, raise risks for human exposure. “The technology is vastly outpacing what we know about the health effects.”⁵¹⁵

- May 8, 2014 – A group of leading medical experts and the American Lung Association of the Northeast detailed research and growing concerns about potential health impacts of radon and radium associated with natural gas production and the Marcellus Shale, in particular. High levels of radiation in the Marcellus Shale could pose health threats if high concentrations of radon and its decay products travel with natural gas, a problem compounded by the short distance Marcellus gas could travel in pipelines to people’s homes.⁵¹⁶
- March 24, 2014 – A team led by toxicology researchers at the University of Iowa identified high levels of radioactivity in fracking wastewater as a significant concern and noted that the testing methods used and recommended by state regulators in the Marcellus Shale region can dramatically underestimate the amount of radioactivity—specifically radium—in fracking wastewater.⁵¹⁷ Results obtained using EPA-recommended protocols can be obscured by the presence of other contaminant mixtures. Regarding the use of EPA protocols with fracking wastewater or other highly saline solutions, Duke University geochemist Avner Vengosh noted, “People have to know that this EPA method is not updated.”⁵¹⁸
- February 2014 – The Marcellus Shale is known to have high uranium and radium content. According to Mark Engle, USGS geochemist, the concentration of radium-226 can exceed 10,000 picoCuries/Liter (pCi/L) in the shale. Radium-226 has a half-life of

⁵¹⁵ Konkel, L. (2015). What's NORMal for fracking? Estimating total radioactivity for produced fluids. *Environmental Health Perspectives*, 123(7). Retrieved from <http://ehp.niehs.nih.gov/123-a186/>

⁵¹⁶ Campbell, J. (2014, May 8). Fracking critics keep pushing for state-backed health study. *Politics on the Hudson*. Retrieved from <http://polhudson.lohudblogs.com/2014/05/08/fracking-critics-keep-pushing-state-backed-health-study/>

⁵¹⁷ Nelson, A. W., May, D., Knight, A. W., Eitheim, E. S., Mehrhoff, M., Shannon, R., . . . Schultz, M. K. (2014). Matrix complications in the determination of radium levels in hydraulic fracturing flowback water from Marcellus shale. *Environmental Science & Technology*, 1(3), 204-208. doi: 10.1021/ez5000379

⁵¹⁸ Kelly, S. (2014, March 24). Research shows some test methods miss 99 percent of radium in fracking waste. *Desmogblog.com*. Retrieved from <http://www.desmogblog.com/2014/03/23/some-testing-methods-can-miss-99-percent-radium-fracking-waste-new-research-reports>

1,600 years. Radium and other naturally occurring radioactive materials (NORM) can be released from shale rock during drilling and fracking and can emerge with flowback and produced waters. It can thus enter the ambient environment and become concentrated in the sludge that results from treatment of flowback water, and in river sediment around water treatment facilities. It can also be found in landfills in which sludge and sediment have been disposed. Some radium can be found in drinking water. Geochemist Avner Vengosh warned, “Once you have a release of fracking fluid into the environment, you end up with a radioactive legacy.”⁵¹⁹

- October 2, 2013 – A peer-reviewed study of the impacts of drilling wastewater treated and discharged into a creek by a wastewater facility in western Pennsylvania documented radium levels approximately 200 times greater in sediment samples near the discharge location than in sediment samples collected upstream of the plant or elsewhere in western Pennsylvania. “The absolute levels that we found are much higher than what you allow in the U.S. for any place to dump radioactive material,” one of the authors told *Bloomberg News*. The pollution occurred despite the fact that the treatment plant removed a substantial amount of the radium from the drilling wastewater before discharging it. The researchers wrote that the accumulation of radium in sludge removed from the wastewater “could pose significant exposure risks if not properly managed.”^{520, 521}
- February 2013 – In an analysis of fracking sludge samples from Pennsylvania, researchers “... confirmed the presence of alpha, beta, and gamma radiation in the soil and water in reserve pits located on agricultural land.” Total beta radiation exceeded regulatory guideline values by more than 800 percent, and elevated levels of some of the radioactive constituents remained in a vacated pit that had been drained and leveled. It is imperative, the research team concluded, “that we obtain better knowledge of the quantity of radioactive material and the specific radioisotopes being brought to the earth’s surface from these mining processes.”⁵²²
- July 26, 2012 – Responding to concern about radon in natural gas produced from the Marcellus Shale, the USGS analyzed ten samples of gas collected near the wellheads of three Pennsylvania gas wells. The agency found radon levels ranging from 1-79 picocuries per liter, with an average of 36 and a median of 32. (The highest radon activity reported here would decay to 19.8 pCi/L in approximately a week; by comparison, the EPA’s threshold for indoor air remediation is 4 pCi/L.) Asserting they knew of no

⁵¹⁹ Brown V. J. (2014). Radionuclides in fracking wastewater. *Environmental Health Perspectives* 122(2), A50-A55. doi: 10.1289/ehp.122-A50

⁵²⁰ Warner, N. R., Christie, C. A., Jackson, R. B., & Vengosh, A. (2013). Impacts of shale gas wastewater disposal on water quality in Western Pennsylvania. *Environmental Science & Technology*, 47(20), 11849-11857. doi: 10.1021/es402165b

⁵²¹ Efstathiou, J., Jr. (2013, October 2). Radiation in Pennsylvania creek seen as legacy of fracking. *Bloomberg*. Retrieved from <http://www.bloomberg.com/news/2013-10-02/radiation-in-pennsylvania-creek-seen-as-legacy-of-frackin.html>

⁵²² Rich, A. L., & Crosby, E. C. (2013). Analysis of reserve pit sludge from unconventional natural gas hydraulic fracturing and drilling operations for the presence of technologically enhanced naturally occurring radioactive material (TENORM). *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy*, 23(1), 117-135. doi: 10.2190/NS.23.1.h

previous published measurements of radon in natural gas from the Appalachian Basin, which contains the Marcellus Shale, agency scientists concluded that the number of samples “is too small to ... yield statistically valid results” and urged “collection and interpretation of additional data.”⁵²³

- January 11, 2012 – In its review of the New York State Department of Environmental Conservation’s (NYS DEC) Supplemental Generic Environmental Impact Statement (SGEIS) on high volume fracturing, the EPA expressed concerns about the diffusion of responsibility for the ultimate disposal of radioactive wastes generated by treatment or pretreatment of drilling wastewater. The EPA also raised concerns about the lack of analysis of radon and other radiation exposure. “Who is responsible for addressing the potential health and safety issues and associated monitoring related to external radiation and the inhalation of radon and its decay products?” the EPA asked. “Such potential concerns need to be addressed.”⁵²⁴
- September 7, 2011 – The USGS reported that radium levels in wastewater from oil and gas wells in New York and Pennsylvania, including those in the Marcellus Shale, “have a distinctly higher median ... than reported for other formations in the Appalachian Basin, and range to higher values than reported in other basins.” The median level of radium found in Marcellus Shale wastewater in New York, 5,490 pCi/L, is almost 1,100 times the maximum contaminant level for drinking water, which is five pCi/L. In other words, if a million gallons of Marcellus Shale wastewater contaminated with the median level of radium found in New York were to spill into a waterway, 1.1 billion gallons of water would be required to dilute the radium to the maximum legal level.⁵²⁵ (The EPA’s health-based goal for radium in drinking water is zero.) Over time, radium naturally decays into radioactive radon gas. Thus, higher radium levels also suggest that higher levels of radon may also be present in natural gas produced from the Marcellus Shale.
- February 27, 2011 – The *New York Times* reported on the threat to New York’s drinking water from Pennsylvania drilling waste due to the presence of chemical contaminants, including high levels of radioactivity. The investigation found that sewage treatment plants were neither testing for nor capable of removing that radioactivity, which was subsequently discharged into waterways that supply drinking water, and that, in some cases, wastewater contained radium levels that were hundreds of times higher than the drinking water standard. Drillers sent some of this waste to New York State for disposal even though, as the article noted, EPA scientists had warned the state about this very

⁵²³ Rowan, E. L., & Kraemer, T. F. (2012). *Radon - 222 content of natural gas samples from upper and middle Devonian sandstone and shale reservoirs in Pennsylvania: Preliminary data*. United States Geological Survey. (Rep.). Retrieved from <http://pubs.usgs.gov/of/2012/1159/ofr2012-1159.pdf>

⁵²⁴ Environmental Protection Agency. (2012, January 11). *EPA comments on revised draft NYSDEC revised dSGEIS for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus shale and other low-permeability gas reservoirs* [Press release]. Retrieved from <http://www.epa.gov/region2/newsevents/pdf/EPA%20R2%20Comments%20Revised%20dSGEIS%20Enclosure.pdf>

⁵²⁵ Rowan, E. L., Engle, M. A., Kirby, C. S., & Kraemer, T. F. (2011, September 7). *Radium content of oil- and gas-field produced waters in the northern Appalachian basin (USA): Summary and discussion of data*. (Rep United States Geological Survey. Retrieved from <http://pubs.usgs.gov/sir/2011/5135/>
<http://water.epa.gov/drink/contaminants/basicinformation/radionuclides.cfm>

problem in a December 2009 letter that advised against sewage treatment plants accepting drilling waste with radium levels 12 or more times as high as the drinking water standard.⁵²⁶

- 2008-2009 – The New York State DEC found that wastewater from 11 of 13 vertical wells drilled in New York’s Marcellus Shale in 2008 and 2009 contained radium levels ranging from 400 times to nearly 3,400 times EPA’s safe level limit for radium in drinking water. These figures later informed the 2011 study of radium in drilling wastewater conducted by the USGS.⁵²⁷

⁵²⁶ Urbina, I. (2011, February 26). Regulation lax as gas wells’ tainted water hits rivers. *The New York Times*. Retrieved from http://www.nytimes.com/2011/02/27/us/27gas.html?pagewanted=all&_r=0

⁵²⁷ New York State Department of Environmental Conservation. (2011). *Supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program, well permit issuance for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus shale and other low-permeability gas reservoirs* (5-133, 5-141, 7-60, Appendix 12, Appendix 13, Rep.).

Occupational health and safety hazards

Drilling and fracking jobs are among the most dangerous jobs in the nation with a fatality rate that is four to seven times the national average. Irregularities in reporting practices mean that counts of on-the-job fatalities among oil and gas workers are likely underestimates. Contract workers are especially at risk. Occupational hazards include head injuries, traffic accidents, blunt trauma, burns, inhalation of hydrocarbon vapors, toxic chemical exposures, heat exhaustion, dehydration, and sleep deprivation. An investigation of occupational exposures found high levels of benzene in the urine of wellpad workers, especially those in close proximity to flowback fluid coming up from wells following fracturing activities. Exposure to silica dust, which is definitively linked to silicosis and lung cancer, was singled out by the National Institute for Occupational Safety and Health (NIOSH) as a particular threat to workers in fracking operations where silica sand is used. At the same time, research shows that many gas field workers, despite these serious occupational hazards, are uninsured or underinsured and lack access to basic medical care.

In 2018, the first independent investigation of its kind showed that pipeline construction workers die on the job 3.6 times more often than the average U.S. worker. Pipeline worker deaths occur from crushings, fires, and heat exhaustion. The number of miles of U.S. pipelines tripled from 2006 to 2016, and newer pipelines are less safe than older ones. Pipelines built after 2010 suffer higher failure rates than pipelines built at any other time.

- February 19, 2019 – An investigation into the death of oil worker Dennis Mason by *E&E News* shows how inhalation of toxic vapors is systematically overlooked as a possible cause of workplace mortality and “indicates that more than four years after worker safety officials started warning of the lethal dangers of inhaling petroleum gases, the danger is still ignored in some corners of the oil patch.”⁵²⁸ NIOSH has linked at least 13 oil worker deaths to inhalation of petroleum gases, such as butane and propane. However, because medical examiners do not always test for the substances, and attribute the deaths to “natural causes,” there are likely more. In this case, The Occupational Safety and Health Administration (OSHA) investigators immediately suspected that Dennis Mason was killed by toxic vapors and sent information and materials to the responsible Oklahoma state medical examiner, but state officials said they did not receive them. These materials included a paper by an occupational medicine specialist describing how exposure to high concentrations of hydrocarbon gases and vapors in an oxygen-deficient atmosphere can result in sudden cardiac death among oil and gas extraction workers. Instead, the medical examiner tested only for illegal drugs and alcohol before attributing his death to natural causes.
- February 13, 2019 – A series of catastrophic explosions and fires at a gas-processing facility in Pascagoula, Mississippi shut the plant down for six months in June 2016. This facility receives raw gas from drilling operations and separates it into natural gas and hydrocarbon liquids, which are used to make petrochemicals. The U.S. Chemical Safety

⁵²⁸ Soraghan, M. (2019, February 19). Missed connections leave questions in oil worker's death. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060121345>

Board’s final report identified “thermal fatigue” as the probable cause of the series of conditions leading to the explosions. A “major loss of containment” in a heat exchanger resulted in the release of methane, ethane, propane, and several other hydrocarbons, which subsequently ignited. The report’s interactive 3D model showed that the heat exchanger used at the Enterprise Plant, as well as at over 500 other U.S. gas processing facilities, is innately vulnerable to thermal fatigue. The timing of the explosions at the Pascagoula Gas Plant, which occurred shortly before midnight, likely prevented injuries. According to the final report, had the event happened during the day, with many more workers present, the consequences could have been much worse. The report noted that many nearby residents chose to evacuate, and afterwards, a local community organization informed the Board that residents did not know how to respond to the explosions. “They felt uninformed and ill equipped to know if they were in harm’s way.” The final report’s recommendations included the development of a “robust and engaged community alert network.”⁵²⁹

- December 21, 2018 – In the decade between 2008 and 2017, 1,566 U.S. workers died from on-the-job injuries in the oil and gas drilling industry and related fields. These figures were derived from data collected by the U.S. Department of Labor’s Bureau of Labor Statistics as part of a special investigative report that included participation by the *Texas Tribune*. In a slightly longer overlapping period, OSHA cited companies in the oil and gas extraction industry for 10,873 violations and investigated 552 accidents that had resulted in at least one worker death. Upstream drilling and fracking operations are exempt from safety rules that govern all downstream sectors of the oil and gas industry. Among these are rules that require refineries, petrochemical plants, and other high-hazard operations to adopt procedures to prevent fires, explosions, and chemical leaks. The investigation detailed a number of specific oil and gas industry deaths in Texas, highlighting the various preventative and regulatory failures associated with traumatic injury; exposure to toxic gases, including hydrogen sulfide; and blowout risk and fires.⁵³⁰
- October 11, 2018 – In addition to social isolation and the wide-ranging effects of job-related stress, the physical costs to wellpad workers are high, according to a qualitative study on oil workers’ social, emotional, and psychological well-being. The study consisted of in-depth interviews with 14 oil industry workers in Alberta, Canada. Twelve were men and two were women. Thirteen of the fourteen workers were employed by third-party contractors. They included heavy-equipment operators, surveyors, health and safety specialists, environmentalists, biologists, wireline engineers, derrick hands, consultants, and drillers. All were rotational workers. Rotational work involves travel to various oil fields and working extended shift schedules, which typically involves 21 consecutive days of work followed by three days off. Most of the respondents said they experienced physical pain on a somewhat regular basis. These findings corroborate the results of other studies reviewed by the authors. “Rotational oil field workers are

⁵²⁹ U.S. Chemical Safety Board. (2019, February 13). *Loss of containment, fires, and explosions at Enterprise Products Midstream Gas Plant*. Investigation Report No. 2016-02-I-MS. Retrieved from https://www.csb.gov/assets/1/6/final_case_study_-_enterprise.pdf

⁵³⁰ Morris, J. (2018, December 21). Death in the oilfields. *Texas Tribune*. Retrieved from <https://www.texastribune.org/2018/12/21/death-oilfields-fossil-fuel-boom-brings-mounting-risks/>

vulnerable to personal, social, and economic stressors that may result in degraded wellbeing.... As we explored here, ‘good jobs’ in the patch come at a steep psychosocial and physical health cost to the labourers.”⁵³¹

- October 10, 2018 – The most “cohesive explanation yet” for one of the worst oil field accidents in U.S. history, the January 2018 Oklahoma well fire which killed five workers, came from a lawsuit based on dozens of depositions. OSHA had sought penalties but did not offer an explanation, and the U.S. Chemical Safety Board stated plans to issue a report over a year later. (See Emerging Trend 6 in the front matter of this report, regarding the findings of the final report.) The factors explained in the lawsuit included ignoring warnings about using a cheaper and lighter drilling mud, and a broken and locked door out of which the five workers may have been able to escape.⁵³² The operating company blamed contractors.⁵³³ (See also entry below for August 16, 2018.)
- September 12, 2018 – In 2016, oil and gas pipeline construction workers died on the job 3.6 times more often than the average U.S. worker, as determined by the first independent investigation to compile and present fatality rates for those who build oil and gas pipelines in the United States. That same year oil and gas pipeline construction workers had the highest death rate and number of deaths for those employed in these jobs since 2012. “If we add the deaths of workers whose job it is to maintain and monitor the pipelines as they carry the fuels (pipeline transport), 2016 was the deadliest year for oil and gas pipeline workers since 2009.”⁵³⁴ Pipeline worker deaths occurred from crushings, fires, and heat exhaustion. The number of miles of U.S. pipelines carrying oil and other hazardous liquids tripled from 2006 to 2016, and newer pipelines are less safe than old ones. Pipelines built after 2010 suffer failures at a higher rate than pipelines built “at any time in the last century,” with pipelines carrying natural gas over five times more disaster-prone. The author made available her complete methodology and references for the project, with a discussion of her methodology and other data sources, including strengths, weaknesses, and comparability. Her stated intention in building a first-of-its kind oil and gas pipeline fatality report was to be “as straightforward and replicable as possible.”⁵³⁵
- August 20, 2018 – Nearly 1,000 workers have been killed in the ten years since hydraulic fracturing and horizontal drilling technologies rapidly expanded, although the current oil and gas worker fatality rate is down from its earlier high at seven times higher than across

⁵³¹ Wright, A. C., & Griep, Y. (2019). Burning the midnight oil: Examining wellbeing and vulnerability in Alberta’s oil patch. *The Extractive Industries and Society*, 6, 77–84. Advance online publication. doi: 10.1016/j.exis.2018.10.001

⁵³² Soraghan, M. (2018, October 10). Okla. company scrimped before deadly well fire. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060102139>

⁵³³ Soraghan, M. (2018, October 23). Well operator in fatal fire blames contractors. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060104019>

⁵³⁴ Juhasz, A. (2018, September 12). Death on the Dakota Access: An investigation into the deadly business of building oil and gas pipelines. *Pacific Standard*. Retrieved from <https://psmag.com/magazine/death-on-the-dakota-access>

⁵³⁵ Juhasz, A. (2018, September 12). Methodology for calculating mortality rates. *Pacific Standard*. Retrieved from <https://psmag.com/magazine/methodology-for-calculating-fatality-rates>

all industries. Persistent fatality risk factors include the practice of manual tank gauging, vehicle crashes, and inexperienced workers.⁵³⁶

- August 16, 2018 – On January 22, 2018, five workers were killed during the drilling of a gas well in Pittsburg County, Oklahoma. While the drill pipe was being lifted, a mixture of mud and gas blew upwards out of the well, and the gas subsequently ignited and exploded. A “factual update” as part of the ongoing investigation by the U.S. Chemical Safety Board found that a piece of safety equipment designed to control the release of fluids from the well was unable to fully close on the day of the accident and that other safety corners had been cut.⁵³⁷
- April 29, 2018 – Improper or inadequate use of personal protective equipment was of highest concern in a survey of industry workers and regulators that was designed to find the frequency of “failure incidents” and near misses at wellhead sites. Workers and regulators also cited spills of flowback water due to equipment failure as a major concern, with regard to the welfare of both workers and the general public, as these spills “occur more frequently than any other scenario examined in this study.”⁵³⁸
- April 26, 2018 – There were 63 deaths in oil and gas extraction in 2016, as reported in the 2018 edition of the AFL-CIO report, *Death on the Job, The Toll of Neglect*. The fatality rate for the overall mining sector, which includes oil and gas extraction, was 10.1 per 100,000 workers, nearly three times the national average. These 63 deaths in oil and gas accounted for 71 percent of the total number of fatal work injuries in the mining sector.⁵³⁹
- March 21, 2018 – The trade publication, *Industrial Safety & Hygiene News*, published a summary of January 2015 to February 2017 oil and gas extraction worker “incidents,” which included 481 hospitalizations and 166 amputations. The article outlined the data gaps and limitations that make accurate tallies of severe injuries in upstream oil and gas operations hard to calculate:
 - State-run OSHA programs are not included in the count.
 - Reporting errors and underreporting are common. Based on workers compensation data, underreporting is estimated at 50 percent; self-reported incidents may lack crucial detail or information.
 - OSHA jurisdiction does not cover incidents that occur on public streets, highways, or during commuting.

⁵³⁶ King, P. (2018, August 20). Even 1 death is too many. What does it take to get to 0? *E&E News*. Retrieved from <https://www.eenews.net/stories/1060094701>

⁵³⁷ U.S. Chemical Safety Board. (2018, August 16). CSB releases factual update on blowout and fire at Pryor Trust Gas Well in Pittsburg County, Oklahoma [Press release]. Retrieved from <https://www.csb.gov/csb-releases-factual-update-on-blowout-and-fire-at-pryor-trust-gas-well-in-pittsburg-county-oklahoma/>

⁵³⁸ Abualfaraj, N., Gurian, P. L., & Olson, M. S. (2018). Frequency analysis of failure scenarios from shale gas development. *International Journal of Environmental Research and Public Health*, 5(5). pii: E885. doi: 10.3390/ijerph15050885

⁵³⁹ AFL-CIO. (2018). *Death on the job: The toll of neglect*. 27th Edition. Retrieved from <https://aflcio.org/reports/death-job-toll-neglect-2018>

- Trucking/hauling related incidents may be listed under other [National Association of Insurance Commissioners] codes.⁵⁴⁰
- December 6, 2017 – Two occupational fatalities and numerous injuries resulted from explosions and fires along oil and gas pipelines in Colorado in the time since two men were killed at home from such a blast in April 2016, according to a *Denver Post* investigation. One contract worker was killed and two others were injured in May while they “were changing ‘dump lines’ and ‘one or more tanks exploded,’ according to a report filed in [Colorado Oil and Gas Conservation Commission’s] database.” Another worker died of his burn injuries from a flash fire in November that broke out during work on a pipeline. “The COGCC did not receive a report on this incident... because the pipeline was a ‘gathering line’ outside the agency’s regulatory purview.” The investigation documented additional gaps in regulatory oversight and responses to deaths and injuries.⁵⁴¹
- October 1, 2017 – An investigation by the *Toronto Star*, the *National Observer*, *Global News*, and four Canadian journalism schools reported on hydrogen sulphide (H₂S)-related health threats and incidents (including one occupational death) in Saskatchewan, and government and industry failure to prevent, warn, and respond to this threat. The more than 50 reporters involved “examined thousands of industry and government documents, analyzed terabytes of data and delved into dozens of freedom-of-information requests,” documenting, for example, the existence of government data describing H₂S “hotspots” across the province, that were never released to the public despite agency deliberations. In addition, reporters wrote,

Ministry and industry met four times between 2012 and 2014 to plot strategy, including emergency planning zones, a public communications document, a code of practice and a licensing regime for high-risk, single-well batteries. Those plans were never adopted, a ministry statement confirms.

An industry salesman was killed in 2014 while taking samples. A valve broke and the concentration of H₂S in the spewed fluids, according to the company, “was estimated at 40,000 parts per million, more than enough to bring near-instant death.” The investigation found that four months after the death, “a secret ministry report listed 161 facilities ‘that may be in violation of (the ministry’s) sour gas emission control.’”⁵⁴²

⁵⁴⁰ Industrial Safety & Hygiene News (2018, March 21). Gaps in oil & gas extraction work fatalities and severe injury statistics. Retrieved from <https://www.ishn.com/articles/108304-gaps-in-oil-gas-extraction-work-fatalities-and-severe-injury-statistics>

⁵⁴¹ Finley, B. (2017, December 6). A dozen fires and explosions at Colorado oil and gas facilities in 8 months since fatal blast in Firestone. *Denver Post*. Retrieved from <http://www.denverpost.com/2017/12/06/colorado-oil-gas-explosions-since-firestone-explosion/>

⁵⁴² Cribb, R., Sonntag, P., Elliot, P. W., & McSheffrey, E. (2017, October 1). That rotten stench in the air? It’s the smell of deadly gas and secrecy. *Thestar.com*. Retrieved from <https://www.thestar.com/news/canada/2017/10/01/that-rotten-stench-in-the-air-its-the-smell-of-deadly-gas-and-secrecy.html>

- August 24, 2017 – NIOSH’s Fatalities in Oil and Gas Extraction (FOG) database identified 88 fatal incidents accounting for 101 fatalities, for the year 2014. In ten of the 88 incidents, more than one worker was fatally injured. The FOG database was established to collect detailed information about deaths related to U.S. oil and gas extraction. The report, which represents only a portion of the deaths that occurred in the industry due to the focus and limitations of the database, aims to provide a deeper understanding of the circumstances of the fatalities, such as the industry group the worker was employed by, and operations and types of activities occurring at the time of the fatal incident. The majority of fatalities in FOG, 45 percent, involved workers employed by servicing companies. These servicing company worker fatalities occurred throughout oil and gas extraction operations: completions (14 fatalities), production (11 fatalities), and well servicing, workover, or intervention (5 fatalities). The industry group responsible for the second highest number of fatalities was drilling companies, at 27 percent, with most of those deaths occurring during drilling operations (20 fatalities). FOG data for 2015-2016 data was not yet available.⁵⁴³
- May 30, 2017 – In a “rare, but not unprecedented” case, the U.S. Environmental Protection Agency (EPA) opened an investigation of air emissions from two North Dakota oil well sites where worker deaths occurred in 2012 and 2014. EPA requested information from both companies to determine Clean Air Act compliance on the day of the deaths. According to the *E&E News* report, it was not clear whether the agency was “looking at civil or criminal sanctions.” Both workers, who were “flow testers,” “assigned to regularly measure tank levels by hand,” were found dead near tank hatches.⁵⁴⁴ (No further information could be located on this investigation.)
- April 28, 2017 – Fatality rates for oil and gas extraction workers associated with falls increased two percent per year during 2003–2013, according to the Centers for Disease Control and Prevention’s *Morbidity and Mortality Weekly Report*. These 63 fatal falls represented 15 percent of the fatal events among this group in the time period. The majority of those who were killed by falls worked for drilling contractors. In the vast majority of cases, “fall protection was required by regulation, but it was not used, was used improperly, or the equipment failed.” Authors noted several limitations of their report, such as the lack of information on self-employed workers and lack of detail in some fatality reports.⁵⁴⁵
- April 26, 2017 – The 2017 edition of the AFL-CIO report, *Death on the Job: The Toll of Neglect*, which reported on the year 2015, showed that, although the number of deaths in the oil and gas extraction industries decreased compared to 2014 (89 compared to 144), employment in oil and gas extraction also decreased from 613,783 in 2014 to 533,184 in

⁵⁴³ Ridl, S., Retzer, K., & Hill, R. (2017). *Oil and gas extraction worker fatalities 2014; NIOSH fatalities in oil and gas extraction (FOG) database*. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH). Publication No. 2017-193.

⁵⁴⁴ Soraghan, M. (2017, May 30). EPA investigating emissions in tank deaths. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060055258>

⁵⁴⁵ Mason, K. L., Retzer, K. D., Hill, R., & Lincoln, J. M. (2017). Occupational fatalities resulting from falls in the oil and gas extraction industry, United States, 2005–2014. *MMWR*, 66(16), 417–421. doi: <http://dx.doi.org/10.15585/mmwr.mm6616a2>

2015. The deaths in the oil and gas extraction industries “accounted for 74% of the fatal work injuries in the mining sector.” Referring to the challenges of getting a firm handle on statistics in this industry, the report stated that, “[f]atality rate data for the oil and gas industry are limited, but available data during the past seven years show fatality rates in oil and gas extraction that are four to seven times the national fatality rate.” Further, “[n]ot surprisingly, states with large amounts of oil and gas activity also have high job fatality rates.” Citing the continuing problem of assigning cause of death in the case of possible inhalation of toxic fumes, the report stated, “[w]hile some deaths are appropriately classified as inhalation deaths, others can be labeled as cardiac arrhythmia or respiratory failure, without further investigation as to whether the health event was induced by acute chemical exposure.” As in previous years, the report expressed concerns about the regulatory gaps in controlling a range of potentially fatal hazards in the industry.⁵⁴⁶

- February 1, 2017 – Caused by exposure to silica particles or dust, silicosis is a progressive, autoimmune disease that scars lung tissue and restricts the ability to breathe. Any level of exposure to respirable crystalline silica can trigger silicosis. A special report on the history of silicosis in the *Journal of Environmental Health* provided background on silicosis as a workplace threat in various industries and identified drilling and fracking operations as a source of contemporary exposure. The report predicts a future cluster of silicosis among well pad workers, noting that research has already identified “unacceptable levels” of silica dust in air samples collected at fracking operations and that workers are seldom offered appropriate respiratory equipment to prevent exposure. Fracking “has the potential for future clusters of silicosis cases to emerge.”⁵⁴⁷
- February 1, 2017 – University of Tennessee Civil and Environmental Engineering faculty investigated the occupational inhalation risks from the emissions of chemical storage tanks in 60,644 fracking wells. They also analyzed the combined occupational inhalation risks caused by open flowback pits and the storage tanks. They used AERMOD, the air pollution dispersion modeling system developed by the American Meteorological Society and EPA, and inhalation risk assessment to determine potential acute non-cancer, chronic non-cancer, acute cancer, and chronic cancer risks. Their results showed the percentage of wells presenting these risks were 12.41, 0.11, 7.53, and 5.80, respectively. They also found that the storage tanks presented the majority of the cancer risks, and the non-cancer risks were associated primarily to the open pits. The known human carcinogen formaldehyde was “the dominant contributor” to both acute (4,267 wells) and chronic (3,470 wells) cancer risk. Authors also reported that volatile organic compound (VOC) emissions from nearby wells and other on-site sources means that the data used in their study “were lower than reported concentrations from field measurements where higher occupational inhalation risks for exposure may be expected.”⁵⁴⁸

⁵⁴⁶ AFL-CIO. (2017). *Death on the job: The toll of neglect*. 26th Edition. Retrieved from <https://aflcio.org/reports/death-job-toll-neglect-2017>

⁵⁴⁷ Quail, M. T. (2017). Overview of silica-related clusters in the United States: Will fracking operations become the next cluster? *Journal of Environmental Health*, 79(6), 20-27.

⁵⁴⁸ Chen, H., & Carter, K. E. (2017). Modeling potential occupational inhalation exposures and associated risks of toxic organics from chemical storage tanks used in hydraulic fracturing using AERMOD. *Environmental Pollution*, 224, 300-309. doi: 10.1016/j.envpol.2017.02.008

- January 19, 2017 – A group of Canadian physicians published a report documenting ten intentional intoxications from the ingestion of fracking fluid. Each individual survived, which the authors attribute to “[r]apid case finding and diligent contact tracing.” Their report, published in the *American Journal of Kidney Diseases*, focused on this appropriate response and treatment, but also described the “outbreak” challenge from a public health perspective and emphasized the need for prevention education and “requiring secure storage of these products.” Though the professions or workplaces of the patients are not described, presumably they were oil and gas industry workers with easy access to fracking fluid.⁵⁴⁹
- September 25, 2016 – A four-chapter investigative series by the *Denver Post* explored in detail Colorado’s 12-year record of an oil and gas worker dying, on average, every three months. The piece documented the obstacles present in even clarifying the occupational mortalities owing to the differing reporting practices of the Bureau of Labor Statistics, OSHA, and state officials. “Regulation is so disjointed that no one can even agree on the number of workers killed on the job.” Investigating the details of the deaths through any available records, the *Post* described a “regulatory vacuum,” as well as “little consequence” to the industry when deaths (or worksite violations) occur. Worker death circumstances examined in the piece included electrocutions, falls and collapsed structures, crushings by equipment, explosions, and a drowning in frack sand. The *Post* also identified five lawsuits over 15 years “in which workers alleged that they were punished for reporting injuries or safety hazards.”⁵⁵⁰
- April 27, 2016 – According to the 2016 edition of the AFL-CIO report, *Death on the Job: The Toll of Neglect*, the fatality rate for workers in the oil and gas extraction industries is nearly five times the national average, and the states with prominent oil and gas industries are among the most dangerous states to work. In addition, the report emphasized, the industry has been exempted from some critical OSHA standards, including that for carcinogenic benzene. The report also emphasized the danger of silica dust exposure in hydraulic fracturing-related work and the significant delays in controlling workers’ exposures in these operations. “Oil and gas extraction is subject to OSHA general industry and construction regulations, none of which are designed to address the particular safety and hazards in the oil and gas industry.... The escalating fatalities and injuries in the oil and gas extraction industry demand intensive and comprehensive intervention,” the report stated.⁵⁵¹
- April 21, 2016 – According to an updated report from the Bureau of Labor Statistics, fatal work injuries in oil and gas extraction industries in 2014 reached a new high of

⁵⁴⁹ Collister, D., Duff, G., Palatnick, W., Komenda, P., Tangri, N., & Hingwala, J. (2017). A methanol intoxication outbreak from recreational ingestion of fracking fluid. *American Journal of Kidney Diseases*, 69(5), 696-700. doi: 10.1053/j.ajkd.2016.10.029

⁵⁵⁰ Sangosti, R.J. (2016, September 25). Drilling through danger. *Denver Post*. Retrieved from <http://extras.denverpost.com/oil-gas-deaths/index.html>

⁵⁵¹ AFL-CIO. (2016). *Death on the job: The toll of neglect*. 25th Edition. Retrieved from <http://www.aflcio.org/Issues/Job-Safety/Death-on-the-Job-Report>

- February 29, 2016 – *Inside Energy*'s report on high rates of hydrocarbon vapor poisoning among oilfield workers noted that an outdated reliance on manual measurements rather than automated monitoring contributes to ongoing toxic exposures of workers. Under federal oil and gas regulations, oil companies are effectively required to send workers “up on oil and gas tanks to manually measure crude oil, putting them at risk.” The report explained that the Bureau of Land Management (BLM) allows just one kind of automated measurement. The method is expensive and uncommonly used: “there are only 1,500 in use, compared to more than 83,000 oil tanks on federal land. By being so inflexible, BLM’s outdated rules make it very hard to use safer oil measuring devices while making manual oil tank measurement—which endangers workers—the most viable option for companies.”⁵⁵³
- February 19, 2016 – The fatal injuries of a backhoe operator who struck and hit an unmarked, high-pressure gas line in July 2015 prompted an investigation by *StateImpact* in Pennsylvania. The news group noted that “there are no local, state or federal rules on how deep the lines should be buried underground, or even if they’re buried at all. There are no standards for building and maintaining the lines. They don’t have to be marked. And the operator of the line doesn’t have to participate in PA One Call [a statewide communications system for preventing damage to underground facilities], which led to the fatality in Armstrong County.”⁵⁵⁴
- January 15, 2016 – In a publication in Centers for Disease Control’s *Mortality & Morbidity Weekly Report*, researchers urged local and state epidemiologists and medical examiners to not overlook hydrocarbon exposure as an underlying cause of death in gas and oil field workers. “Health and safety professionals need to recognize and act on nonfatal warning signs and symptoms, such as dizziness, confusion, immobility and collapse in oil and gas workers who might have been exposed to high concentrations of [hydrocarbon gas vapors] and to [oxygen]-deficient atmospheres.” Only three of nine deaths that occurred between 2010 and 2015 in the oil and gas fields west of Appalachia were ruled by coroners to have resulted from exposure to gas vapors, although all nine had opened hatches of storage tanks and were exposed to hydrocarbon vapors and oxygen-deficient air.⁵⁵⁵ The *Pittsburgh Post-Gazette* quoted emeritus professor at the University of Pittsburgh Bernard Goldstein saying, “Occupational health experts also

⁵⁵² U.S. Bureau of Labor Statistics. (2016, April 21). Revisions to the 2014 Census of Fatal Occupational Injuries (CFOI). Retrieved from http://www.bls.gov/iif/foi_revised14.htm

⁵⁵³ Guerin, E. (2016, February 29). “Senseless exposures”: How money and federal rules endanger oilfield workers. *Inside Energy*. Retrieved from <http://insideenergy.org/2016/02/29/senseless-exposures-how-money-and-federal-rules-endanger-oilfield-workers/>

⁵⁵⁴ Phillips, S. (2016, February 19). Worker dies in pipeline accident, PUC steps up calls for reform. *StateImpact*. Retrieved from <https://stateimpact.npr.org/pennsylvania/2016/02/19/worker-dies-in-pipeline-accident-puc-steps-up-calls-for-reform/>

⁵⁵⁵ Harrison, R. J., Retzer, K., Kosnett, M. J., Hodgson, M., Jordan, T., Ridl, S., & Kiefer, M. (2016). Sudden deaths among oil and gas extraction workers resulting from oxygen deficiency and inhalation of hydrocarbon gases and vapors — United States, January 2010–March 2015. *Morbidity and Mortality Weekly Report*, 65(1), 6-9. Retrieved from <http://www.cdc.gov/mmwr/volumes/65/wr/mm6501a2.htm>

suspect that some deaths involving fires, falls, crashes and mishandling of equipment have resulted from faulty judgement or ‘wooziness’ associated with hydrocarbon vapor exposure ... [b]ut that underlying factor rarely shows up in fatality reports.”⁵⁵⁶

- December 14, 2015 – As reported in the *Guardian*, the suicide rate in the Canadian province of Alberta spiked by 30 percent spike in the first half of 2015, possibly linked to the boom-and-bust cycle of the fracking industry. At the time of reporting, 40,000 jobs had been lost in Alberta since the drop in oil prices in late 2014. Mental health professionals interviewed for the report included Edmonton social worker Leonard McEwan, who specializes in clinical crises intervention and whose patients include those directly or indirectly employed in the oil fields, noticed a sharp increase in suicides after the recent plunge in oil prices. As revealed in the investigative report, three in every four Alberta suicides are male and the vast majority are under 55. Gladys Blackmore, executive director of a mental health program that targets those employed in the industry, believes that young, male workers “living high-risk lifestyles, often in work camps, where they ‘fly-in/fly-out’ for up to 24 days at a time” are particularly vulnerable.⁵⁵⁷
- November 7, 2015 – The *Denver Post* reported on a “new federal database that was developed to more precisely capture the deadly nature of oil and gas extraction.” For Colorado, the national Fatalities in Oil and Gas Extraction (FOG) database contained two additional oil and gas worker deaths for 2014 than did the Bureau of Labor Statistics. “‘We knew from the Bureau of Labor Statistics data about the basics of what’s killing workers,’ said Kyla Retzer, an epidemiologist who led the effort to compile the FOG report. ‘We just wanted to be more in-depth in finding out what were the types of operations and equipment were involved in these deaths.’”⁵⁵⁸ (See entry for August 24, 2017 above for official report.)
- November 4, 2015 – San Antonio’s *Express-News* Editorial Board called for specific actions to address Texas’s status “a national leader in oil field deaths.” The Board wrote that federal fines are too low and unchanged since 1991 and that there is no Level 1 trauma center south of San Antonio near the region’s oil- and gas-producing counties.⁵⁵⁹

⁵⁵⁶ Litvak, A. (2016, January 25). Vapors linked to oxygen depletion present hazard for oil, gas workers. *Pittsburgh Post-Gazette*. Retrieved from <http://powersource.post-gazette.com/powersource/policy-powersource/2016/01/25/Vapors-linked-to-oxygen-depletion-present-hazard-for-oil-gas-workers/stories/201601220095>

⁵⁵⁷ Mouallem, O. (2015, December 14). The boom, the bust, the darkness: suicide rate soars in wake of Canada's oil crisis. *The Guardian*. Retrieved from https://www.theguardian.com/world/2015/dec/14/canada-oil-production-crisis-suicide-alberta?CMP=share_btn_fb

⁵⁵⁸ Whaley, M. (2015, November 7). Colorado oil deaths greater in 2014 than previously calculated. *Denver Post*. Retrieved from <http://www.denverpost.com/2015/11/07/colorado-oil-deaths-greater-in-2014-than-previously-calculated/>

⁵⁵⁹ *Express-News* Editorial Board. (2015, November 4). Take care of the state’s oil, gas workers. *MySanAntonio.Com*. Retrieved from <http://www.mysanantonio.com/opinion/editorials/article/Take-care-of-the-state-s-oil-gas-workers-6611077.php>

- September 17, 2015 – The Bureau of Labor Statistic reported that the number of fatal work injuries in oil and gas extraction industries rose 27 percent between 2013 and 2014.⁵⁶⁰
- September 15, 2015 – E&E Publishing’s *EnergyWire* reported on the potentially deadly risk of exposure to vapors from oil and gas field storage tanks, including deaths that were officially attributed to cardiac arrest, though inhalation of toxic gases and lack of oxygen played a role, as demonstrated in subsequent litigation. The reporter gave detail on the circumstances of several of the deaths, including that of a long-haul trucker who had heart disease and was diabetic, and whose death was classified as natural. “But he didn’t suffer a heart attack that day, or a diabetic episode. Medical experts said he likely wouldn’t have died outside the toxic atmosphere on the catwalk.” A Denver cardiologist testified that “there was no other reason for him to have died that day.”⁵⁶¹ (NIOSH has subsequently targeted outreach to medical examiners to improve their recognition of this hazard and potential cause of death; see above.)
- September 5, 2015 – In partnership with Rocky Mountain PBS I-News, *The Durango Herald* reported on the oil and gas industry’s varied practices in their handling of silica sand with regard to worker protection. In 2012 the National Institute for Occupational Safety and Health issued an alert concerning workers at fracking sites being exposed to silica dust at levels that exceeded occupational exposure limits. Industry has resisted updates to the standards. The *Herald* report addressed technological and work practice controls to reduce exposure on the part of some companies. Still, authors wrote, silicosis “can hide for a decade before causing symptoms. No one knows how many oil and gas workers may have already been exposed.”⁵⁶²
- June 29, 2015 – An investigation by the Center for Public Integrity (CPI) found that lung-damaging silica is not sufficiently regulated to prevent silicosis (which is incurable and has no effective treatment) or lung cancer in the workplace. Rules governing occupational exposure to silica dust are far outdated, and advocacy efforts to tighten them are four decades old. At particular risk, say the authors, are workers in oil and gas fields where silica sand is used in fracking operations. Citing research by NIOSH, the CPI team noted that nearly 80 percent of the air samples on the well pads were above the recommended exposure limit for silica dust.⁵⁶³

⁵⁶⁰ U.S. Department of Labor, Bureau of Labor Statistics (2015, September 17). *National census of fatal occupational injuries in 2014* (preliminary results). USDL-15-1789. Retrieved from <http://www.bls.gov/news.release/pdf/foi.pdf>

⁵⁶¹ Soraghan, B. (2015, September 14). SAFETY: How shale oil can kill. *E&E Publishing, LLC*. Retrieved from <http://www.eenews.net/stories/1060024589>

⁵⁶² Boiko-Weyrauch, A. (2015, September 5). Oil, gas industry responding to threat of worker lung disease. *Durango Herald*. Retrieved from <http://www.durangoherald.com/article/20150905/NEWS02/150909741/Oil-gas-industry-responding-to-threat-of-worker-lung-disease->

⁵⁶³ Morris, J., Hopkins, J. S., & Jameel, M. (2015, June 30). Unequal risk: Slow-motion tragedy for American workers. *The Center for Public Integrity*. Retrieved from <http://www.publicintegrity.org/2015/06/29/17518/slow-motion-tragedy-american-workers>

- June 15, 2015 – *EnergyWire* examined issues surrounding exposure to crystalline silica from frack sand mining, which is a health concern to those living near mines and to those working in the industry. Families living near industrial sand mining reported that their health has been compromised by sand mine development and are concerned that companies are not properly monitoring their extraction sites. The article noted that OSHA is working on a new exposure rule for workers that the agency estimates would save nearly 700 lives and prevent 1,600 new cases of silicosis annually. The oil and gas industry is fighting the rule because of the cost associated with complying with a more stringent permissible exposure limit. Crispin Pierce, public health researcher at the University of Wisconsin in Eau Claire, is in the midst of a three-pronged research project to look at the industry’s air effects. Among other findings, his project’s air monitors around sand plants have found consistently finding higher readings than the Wisconsin Department of Natural Resources’ reported regional values.⁵⁶⁴
- June 15, 2015 – In an update, NIOSH noted that silicosis death rates are rising again, reversing an earlier, decade-long decline. In the list of job tasks with known high silica exposures, the update named hydraulic fracturing of gas and oil wells. These results are particularly concerning in light of earlier research showing significant under-detection of silicosis among deceased workers with known exposure to silica dust.⁵⁶⁵
- June 13, 2015 – Reporting on North Dakota’s fracking boom, the Center for Investigative Reporting found that the major oil companies have largely written the rules governing their own accountability for accidents. Deeply entrenched corporate practices and weak federal oversight, according to the report, have led to high injury and death rates and a shift of assigned responsibility to others. Using data from U.S. and Canadian regulators, the journalists verified 74 on-the-job deaths among workers in Bakken Shale drilling and fracking operations since 2006. The actual number of deaths is likely higher than currently reported because federal regulators do not have a systematic way to record oil- and gas-related deaths, and OSHA does not include certain fatalities, including those of independent contractors. The report concluded that there was too little oversight from OSHA, that laws to protect workers were outdated, and that there was a culture of self-regulation by the industry.⁵⁶⁶
- May 29, 2015 – The Centers for Disease Control and Prevention published statistics on work-related fatalities during the fracking boom. The occupational fatality rate among U.S. oil and gas industry extraction workers between 2003 and 2013 remained an average of seven times higher than among U.S. workers in general (25.1 versus 3.7 deaths per 100,000 workers per year). Within this 11-year period, the industry doubled the size of its workforce and increased drilling rigs by 71 percent. The number of occupational deaths

⁵⁶⁴ King, P. (2015, June 15). Frac sand towns question whether rules protect them against silica pollution. *EnergyWire*. Retrieved from <http://www.eenews.net/stories/1060020192>

⁵⁶⁵ Mazurek, J. M., & Weissman, D. (2015, June 15). Silicosis update. *NIOSH Science Blog*. Retrieved from <http://blogs.cdc.gov/niosh-science-blog/2015/06/15/silicosis-update/>

⁵⁶⁶ Gollan, J. (2015, June 13). In North Dakota’s Bakken oil boom there will be blood. *Reveal; Center for Investigative Reporting*. Retrieved from <https://www.revealnews.org/article/in-north-dakotas-bakken-oil-boom-there-will-be-blood/>

increased 27.6 percent, with a total of 1,189 deaths, but it did not increase as much as the number of workers, resulting in an overall decrease in the fatality rate of 36.3 percent. Transportation accidents and contact with objects and equipment were the most frequent fatal events. Evidence suggests that the increased use of automated technologies on drilling rigs may be contributing to the decline in death rates.⁵⁶⁷

- April 22, 2015 – The AFL-CIO published data for job injuries, illnesses and deaths in a national and state-by-state profile of worker safety and health in the United States, presenting comparisons by state and industry. For the third year in a row, North Dakota had the highest on-the-job fatality rate in the nation: 14.9 deaths per 100,000 workers, a rate that is more than four times the national average, and which has more than doubled since 2007. The fatality rate in the mining and oil and gas extraction sector in North Dakota was 84.7 per 100,000, which is nearly seven times the national fatality rate of 12.4 per 100,000 in this industry.^{568, 569}
- April 10, 2015 – In a study that was inclusive of fracking-based extraction but not specific to it, NIOSH researchers updated their investigation into the sudden deaths of nine oil and gas extraction workers found near hatches where hydrocarbons were stored. All nine victims died between 2010 and 2014 and were unobserved or working alone at the time of their deaths. The first report attributed the fatalities to “inhalation of volatile petroleum hydrocarbons.”⁵⁷⁰ The update noted that when workers open hatches on production tanks, a plume of hydrocarbon gases and vapors can be rapidly released due to high internal pressure. Exposure to high concentrations of these low-molecular-weight hydrocarbons creates asphyxiation and explosive hazards and can have narcotic effects, resulting in disorientation, dizziness, and light-headedness. The authors cited reports of other sudden deaths following butane and propane inhalation, exposure to which can induce irregular heartbeat, insufficient oxygen supply, and respiratory depression.⁵⁷¹ As reported by the *Denver Post*, most of the death certificates listed natural causes or heart failure as the cause likely because medical examiners can easily miss signs of toxic inhalation during a routine autopsy. The nomadic nature of the industry presents obstacles to proper training in tank handling techniques.⁵⁷² NIOSH issued

⁵⁶⁷ Mason, K. L., Retzer, K. D., Hill, R., & Lincoln, J. M. (2015, May 29). Occupational fatalities during the oil and gas boom—United States, 2003-2013. *Morbidity and Mortality Weekly Report*, 64, 551-554. Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6420a4.htm>

⁵⁶⁸ AFL-CIO Safety and Health Department, (2015, April 22). Death on the job: The toll of neglect. Retrieved from <http://www.aflcio.org/Issues/Job-Safety/Death-on-the-Job-Report>

⁵⁶⁹ Kasperkevic, J. (2015, April 29). About 150 US workers are killed on the job every day – report. *Guardian*. Retrieved from <http://www.theguardian.com/us-news/2015/apr/29/north-dakota-deadliest-state-workers-third-year-running>

⁵⁷⁰ NIOSH. (2015, March 15). Suspected inhalation fatalities involving workers during manual tank gauging, sampling, and fluid transfer operations on oil and gas well sites, 2010-2014. *CDC Workplace Safety & Health Topics*. Retrieved from http://www.cdc.gov/niosh/topics/fog/data.html#_ftn1

⁵⁷¹ King, B., Esswein, E., Retzer, K., Snawder, J., Ridl, S., Breitenstein, M. Alexander-Scott, M., & Hill, R. (2015, April 10). *NIOSH Science Blog*, Centers for Disease Control. Retrieved from <http://blogs.cdc.gov/niosh-science-blog/2015/04/10/flowback-3/>

⁵⁷² Whaley, M. (2015, May 18). Toxic vapors suspected in deaths of three Colorado oil and gas workers. *Denver Post*. Retrieved from http://www.denverpost.com/news/ci_28136543/colorado-oil-and-gas-workers-fell-victim-little

recommendations for worker protections, including respiratory protection training and engineering controls for remote gauging and venting.⁵⁷³

- February 15, 2015 – Burn injuries among North Dakota workers surged to more than 3,100 over the past five years as the area has become the epicenter of a massive drilling and fracking boom, as reported by the *Star Tribune*. Despite the flammability of Bakken crude oil and the danger of oil rig work, North Dakota has no burn centers, and burn victims must be transported out of state, typically to the Minneapolis-St. Paul area some 600 miles away. The article also covered the severe, debilitating, costly, and sometimes fatal aspects of these occupational injuries.⁵⁷⁴
- February 13, 2015 – NIOSH reported that while silicosis death rates declined between 2001 and 2010, silicosis deaths were still occurring among young persons aged 15 to 44 years old, indicating extremely high exposures to respirable silica dust. Among emerging new settings that put workers at risk for silicosis, the authors named oil and gas extraction industry workers.⁵⁷⁵
- January 14, 2015 – The *Charleston Gazette-Mail* reported that, due to an increase in workplace deaths that has accompanied the boom in natural gas drilling and production from the Marcellus Shale fields in Northern West Virginia, the Governor there has called for a study aimed at reversing that trend. “Between 2009 and 2013, as the industry boomed in the Marcellus region, 15 natural gas workers died on the job in West Virginia, according to the federal data. During the previous five-year period, from 2004 to 2008, three workers died in West Virginia’s oil and gas industry, according to the [U.S. Bureau of Labor Statistics].”⁵⁷⁶
- January 12, 2015 – Oil and gas production employs less than one percent of the U.S. workforce, but in the past five years it has had more than ten percent of all workplace fatalities from fires and explosions. A review by *EnergyWire* of federal labor statistics last year found the industry had more deaths from fires and explosions than any other private industry. The only “industry” with more fire and explosion fatalities than oil and gas was firefighting, the report stated. These statistics are inclusive of deaths related to fracking operations but are not specific to them.⁵⁷⁷

⁵⁷³ Associated Press. (2015, May 18). 9 oil well deaths lead to warning about inhaling chemicals. *Times-Call*. Retrieved from http://www.timescall.com/news/nationworldnews/ci_28138297/9-oil-well-deaths-lead-warning-about-inhaling

⁵⁷⁴ Rao, M. (2015, February 15). Twin Cities hospitals are front line in treating Bakken burn victims. *StarTribune.com*. Retrieved from

<http://www.startribune.com/lifestyle/health/291967611.html?page=all&prepage=1&c=y#continue>

⁵⁷⁵ Bang, K. M., Mazurek, J. M., Wood, J. M., White, G. E., Hendricks, S. A., & Weston, A. (2015), Silicosis mortality trends and new exposures to respirable crystalline silica – United States, 2001-2010. *Morbidity and Mortality Weekly Report*, 64(05), 117-120. Retrieved from

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6405a1.htm>

⁵⁷⁶ Ward, K. (2015, January 14). Tomblin calls for study of increased deaths from gas-drilling boom. *Charleston Gazette*. Retrieved from https://www.wvgazette.com/news/politics/tomblin-calls-for-study-of-increased-deaths-from-gas-drilling/article_21d6342f-c5dd-54ee-bd91-534ece13373a.html

⁵⁷⁷ Soraghan, M. (2015, January 12). At least 16 drilling industry workers died in fires, explosions last year. *EnergyWire*. Retrieved from <http://www.eenews.net/stories/1060011452>

- December 26, 2014 – A report in the *Houston Chronicle* illustrated the difficulties oil and gas workers encounter when injured on the job. In one case a worker fell from a rig, injuring his head. Supervisors did not record the accident. After he became too ill to work, he was shifted to other jobs and soon after, sent home. His daughter filed a Worker’s Compensation claim, which was denied for “late reporting, no knowledge of injury by employer and no medical reports.” The article noted that oilfield injuries are generally undercounted nationally. These include injuries related to drilling and fracking operations as well as those linked to other techniques of extraction.⁵⁷⁸
- December 4, 2014 – Benzene, a naturally occurring component of crude oil and natural gas, is a known carcinogen, with no known threshold of safety. Although the American Petroleum Institute in 1948 stated that “the only absolutely safe concentration ... is zero,” the organization since then undertook an intensive campaign to combat strict exposure limits. An investigation by the Center for Public Integrity found that, “[f]or decades, the petrochemical industry spent millions on science seeking to minimize the dangers of benzene.... Taken together, the documents—put in context by interviews with dozens of lawyers, scientists, academics, regulators and industry representatives—depict a ‘research strategy’ built on dubious motives, close corporate oversight and painstaking public relations.”⁵⁷⁹
- December, 2014 – In a report intended to inform employers and workers about the known hazards that result from hydraulic fracturing and flowback operations, OSHA noted that there is no publicly available worker injury, illness, or fatality data specific for fracking or flowback operations. At the same time, more workers are exposed to fracking- and flowback-related hazards due to the huge increase in the numbers of these operations over the past ten years. “In light of this, OSHA has determined that additional information concerning hydraulic fracturing and flowback operations hazards should be provided to educate and protect workers.”⁵⁸⁰
- November 11, 2014 – University of Wisconsin toxicologist Crispin Pierce documented super-fine dust drifting from facilities that process silica sand for fracking operations. Pierce and his team detected silica dust in ambient air near frac sand operations at levels that exceed EPA air quality standards by a factor of four. Occupational exposure to respirable crystalline silica is linked in adult workers to silicosis, lung cancer, and pulmonary tuberculosis. Health threats to the general public from frac sand-related air pollution have not yet been studied directly. One of the first investigations of silica dust levels in the community environment, the Wisconsin study will appear next year in the

⁵⁷⁸ Olsen, L. (2014, December 16). Many oilfield injuries go unreported. *Houston Chronicle*. Retrieved from <http://www.houstonchronicle.com/news/houston-texas/houston/article/Many-oilfield-injuries-go-unreported-5980350.php>

⁵⁷⁹ Lombardi, K. (2014, December 4). Benzene and worker cancers: ‘An American tragedy.’ The Center for Public Integrity. Retrieved from <http://www.publicintegrity.org/2014/12/04/16320/benzene-and-worker-cancers-american-tragedy>

⁵⁸⁰ U.S. Department of Labor, Occupational Safety and Health Administration. (2014). Hydraulic fracturing and flowback hazards other than respirable silica. OSHA 3763-12 2014.

Journal of Environmental Health.⁵⁸¹ (See entry for November 6, 2015 in Sand mining and processing.)

- November 11, 2014 – A high-pressure water line ruptured, killing one worker and seriously injuring two others during the hydraulic fracturing of an oil well in Weld County, Colorado.⁵⁸²
- October 6, 2014 – Toxicologist Peter Thorne, chair of University of Iowa’s Department of Occupational and Environmental Health, warned the Winneshiek County Board of Supervisors about potential community impacts and cancer risks of silica exposure from sand used for fracking operations. Thorne’s ongoing investigation, which involves air sampling, risk assessments, and inhalation toxicology studies, focuses on the public health hazards of mining, processing, and storing sand. His team has documented spikes in silica particulate matter related to the transport of the silica sand by rail. The study aims to determine if mining poses an “unacceptable exposure” to the public and quantify the level of risk. For silica-exposed workers, NIOSH continues to identify needed health protections. Thorne noted, “Workers handling materials should be using respirators, but most are not.”⁵⁸³
- September 25, 2014 – The Civil Society Institute's Boston Action Research, in cooperation with Environmental Working Group and Midwest Environmental Advocates, issued a report on the hazards of silica mining. The report noted that frac sand mining is expanding rapidly in the United States and poses a little-understood threat to public health, the environment, and local economies. Given the pace of the drilling and fracking boom, silica extraction could spread to a dozen other states with untapped or largely untapped sand deposits, including Illinois, Maine, Massachusetts, Michigan, Missouri, New York, North Carolina, South Carolina, Pennsylvania, Tennessee, Vermont, and Virginia. The *International Business Times* published a summary of the findings.^{584, 585}
- August 29, 2014 – In a peer-reviewed study, NIOSH partnered with oil and gas operators and service companies to evaluate worker exposures to, and internal uptake of, volatile organic chemicals at six sites in Colorado and Wyoming where wells were being

⁵⁸¹ Kremer, R. (2014, November 11). High levels of super-fine dust are detected around Wisconsin frac sand mines. *Wisconsin Public Radio*. Retrieved from [http://www.wpr.org/high-levels-super-fine-dust-are-detected-around-wisconsin-frac-sand-](http://www.wpr.org/high-levels-super-fine-dust-are-detected-around-wisconsin-frac-sand-mines?utm_content=buffer8947f&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer)

⁵⁸² Paul, J. (2014, November 11). Brighton man ID'd as victim in fatal Weld County fracking blast. *The Denver Post*. Retrieved from http://www.denverpost.com/news/ci_26937782/brighton-man-idd-victim-fatal-weld-county-fracking?source=pkg

⁵⁸³ Strandberg, S. (2014, October 6). U of I researcher informs supervisors about frac-sand impact. *Decorah Newspapers*. Retrieved from <http://www.decorahnewspapers.com/Content/Home/Home/Article/U-of-I-researcher-informs-supervisors-about-frac-sand-impact/-2/-2/35735>

⁵⁸⁴ Chapman, E., Hopkins, L., Jasset, A., Sheldon, S., & Smith, G. (2014, September 25). Communities at risk: Frac sand mining in the Upper Midwest—A report by Boston Action Research (a project of Civil Society Institute). Retrieved from <http://216.30.191.148/fracsandmining/> and www.bit.ly/fracsandmining

⁵⁸⁵ Gallucci, M. (2014, September 25). US oil & gas fracking boom could drive silica sand mining operations in 12 more states, environmental groups say. *International Business Times*. Retrieved from <http://www.ibtimes.com/us-oil-gas-fracking-boom-could-drive-silica-sand-mining-operations-12-more-states-1695246>

prepared for production. The study found benzene in the urine of well pad workers. Benzene is “naturally present in flowback fluids and the time spent working around flowback and production tanks ... appears to be the primary risk factor for inhalation exposures.” In some cases, airborne concentrations of benzene exceeded the NIOSH Recommended Exposure Limit concentrations and, in a few instances, the American Conference of Governmental Industrial Hygienists’ Threshold Limit Value, “when workers performed work tasks near a point source for benzene emissions.”⁵⁸⁶

- July 29, 2014 – As part of an investigation into the health impacts of drilling and fracking on animal health, veterinarian Michelle Bamberger and Cornell biochemist Robert Oswald, published an interview with a twenty-year oil and gas industry worker about his experiences and worker safety. His account included injuries, 16-hour workdays, fatigue, exposure to chemicals, and inadequate health and safety training. “No one out there tells you about stuff that has latency. That is the last thing they are going to do is tell you that something that you are handling will take you out in 20 years or 10 years or cause you some kind of ailment, or you can potentially drag this home to your family.”⁵⁸⁷
- July 14, 2014 – As part of an analysis of safety and research needs associated with drilling and fracking, researchers at the Colorado School of Public Health and the College of Health Sciences at the University of Wyoming documented high injury and on-the-job mortality rates among gas and oilfield workers. The occupational fatality rate was 2.5 times higher than that of the construction industry and seven times higher than that of general industry. By contrast, injury rates were lower than the construction industry, suggesting that injuries are underreported. Researchers documented crystalline silica levels above occupational health standards and identified the existence of other hazards, including particulate matter, benzene, noise, and radiation. The team called for exposure assessments for both chemical hazards and physical hazards that lead to occupational illness (noise, radioactivity); screening and surveillance systems to assess incidence and prevalence of occupational illness; industry/academic collaboration to conduct occupational epidemiologic studies; and assessment of the effectiveness of industry interventions to reduce exposures.⁵⁸⁸
- July 2014 – The British labor journal *Hazards* identified health concerns in the drilling and fracking industry: increased rate of death on the job, toxic releases, silica exposure, and exposure to hydrocarbons and endocrine disruptors. The union that organizes the construction, rig, and transport workers, on which fracking would rely, agreed at its July 2014 national conference to lobby for a moratorium on fracking because “[d]elegates want union members to be made aware of the dangers of fracking and be advised not to

⁵⁸⁶ Esswein, E., Snawder, J., King, B., Breitenstein, M., Alexander-Scott, M., & Kiefer, M. (2014). Evaluation of some potential chemical risks during flowback operations in unconventional oil and gas extraction: Preliminary results. *Journal of Occupational and Environmental Hygiene*, *11*, D174-0184.

⁵⁸⁷ Bamberger, M., & Oswald, R. (2015). The shale gas revolution from the viewpoint of a former industry insider. *New Solutions: A Journal of Environmental and Occupational Health Policy*, *24*(4), 585-600. Advance online publication. doi: 10.2190/NS.EOV.1

⁵⁸⁸ Witter, R. Z., Tenney, L., Clark, S., & Newman, L. S. (2014). Occupational exposures in the oil and gas extraction industry: State of the science and research recommendations. *American Journal of Industrial Medicine*, *57*(7), 847-856. doi: 10.1002/ajim.22316

work on fracking sites.”⁵⁸⁹

- June 29, 2014, and August 31, 2014 – An initial report and follow-up analysis in *The Columbus Dispatch* examined fire hazards at well pads. In one notable case, malfunctioning hydraulic tubing allowed a well pad fire in Monroe County, Ohio to spread rapidly, prompting evacuations. Local firefighters had neither the correct equipment nor did they know the chemicals they were trying to extinguish. One firefighter was treated for smoke inhalation.^{590, 591}
- May 19, 2014 – Underscoring the dangerous nature of chemicals used in fracking operations, NIOSH reported that at least four gasfield workers have died since 2010 from acute chemical exposures during flowback operations and warned that flowback operations can “result in elevated concentrations of volatile hydrocarbons in the work environment that could be acute exposure hazards.” The agency further noted that such volatile hydrocarbons “can affect the eyes, breathing, and the nervous system and at high concentrations may also affect the heart causing abnormal rhythms.”^{592, 593}
- May 16, 2013 – A NIOSH study revealed that worker exposure to crystalline silica dust from sand used in fracking operations exceeded “relevant occupational health criteria” at all eleven tested sites, and the magnitude of some exposures exceeded NIOSH limits by a factor of 10 or more. “[P]ersonal respiratory protection alone is not sufficient to adequately protect against workplace exposures.” Inhalation of crystalline silica can cause incurable silicosis, lung cancer, chronic obstructive pulmonary disease, kidney disease and autoimmune diseases.⁵⁹⁴ Although community exposures distant from mines are possible, there are no federal or state standards for silica in ambient air.⁵⁹⁵
- May 8, 2014 – A report by the AFL-CIO found that the fracking boom has made North Dakota the most dangerous state for U.S. workers—with a fatality rate five times higher than the national average—and that North Dakota’s fatality rate has doubled since 2007. The AFL-CIO called North Dakota “an exceptionally dangerous and deadly place to

⁵⁸⁹ O’Neill, R. (editor). (2014). Chemicals, dust and deaths and the new rush for oil and gas. *Hazards Magazine*. Special Online Report. Retrieved from <http://www.hazards.org/oil/fracking.htm#top>

⁵⁹⁰ Richards, J. S. (2014, June 29). Glitch sparks smoky fire at gas well. *Columbus Dispatch*. Retrieved from <http://www.dispatch.com/content/stories/local/2014/06/29/glitchsparks-smoky-fire-at-gas-well.html>

⁵⁹¹ Arenschiold, L. (2014, August 31). Fracking fire points out failings. *Columbus Dispatch* Retrieved from <http://www.dispatch.com/content/stories/local/2014/06/29/glitchsparks-smoky-fire-at-gas-well.html>

⁵⁹² Snawder, J., Esswein, E., King, B., Breitenstein, M., Alexander-Scott, M., Retzer, K., . . . Hill, R. (2014, May 19). Reports of worker fatalities during flowback operations [Web log post]. *NIOSH Science Blog*. Retrieved from <http://blogs.cdc.gov/niosh-science-blog/2014/05/19/flowback/>

⁵⁹³ Iafolla, R. (2014, May 20). Four fatalities linked to used fracking fluid exposure during 'flowback,' NIOSH reports. *Bloomberg BNA*. Retrieved from <http://www.bna.com/four-fatalities-linked-n17179890610/>

⁵⁹⁴ Esswein, E. J., Breitenstein, M., Snawder, J., Kiefer, M., & Sieber, W. K. (2013). Occupational exposures to respirable crystalline silica during hydraulic fracturing. *Journal of Occupational and Environmental Hygiene*, 10(7), 347-356. doi: 10.1080/15459624.2013.788352

⁵⁹⁵ University of Iowa Environmental Health Sciences Research Center. (2012). Exposure assessment and outreach to engage the public on health risks from frac sand mining. Retrieved from <http://cph.uiowa.edu/ehsrc/fracsand.html>

work.” U.S. Secretary of Labor Thomas E. Perez called the rising rate of workplace deaths suffered in the oil and gas sector “unacceptable.”⁵⁹⁶

- April 24, 2014 – A University of Texas San Antonio report commissioned by the Methodist Healthcare Ministries found that many oil and gas field workers in the Eagle Ford Shale are uninsured or underinsured and that “the most noticeable health impacts so far are work-related illnesses and injuries: heat exhaustion, dehydration, sleep deprivation, exposure to oil and gas spills and accidents.” The study also noted that oil and gas production has put strain on healthcare facilities.⁵⁹⁷
- April 10, 2014 – West Virginia University researcher Michael McCawley reported that some of the nation’s highest rates of silicosis are in heavily drilled areas within the Northern Panhandle of West Virginia and southwestern Pennsylvania. A disease that hardens the lungs through inflammation and development of scar tissue, silicosis is entirely attributable to exposure to silica dust, a known occupational hazard at drilling and fracking operations. Two years earlier, OSHA and NIOSH issued a joint “Hazard Alert” to warn fracking workers of the health hazards of exposure to silica dust, including silicosis.⁵⁹⁸
- February 25, 2014 – A year-long investigation by the *Houston Chronicle* found that fracking jobs are deadly, with high fatality rates and high rates of serious injury. Within just one year in Texas, 65 oil and gas workers died, 79 lost limbs, 82 were crushed, 92 suffered burns and 675 broke bones. From 2007 to 2012, at least 664 U.S. workers were killed in oil and gas fields.^{599, 600}
- December 27, 2013 – National Public Radio (NPR) reported spiking rates of fatalities related to oil and gas drilling operations, which had increased more than 100 percent since 2009. NPR noted that in the previous year, 138 workers were killed on the job, making the fatality rate among oil and gas workers nearly eight times higher than the average rate of 3.2 deaths for every 100,000 workers across all industries.⁶⁰¹

⁵⁹⁶ Picchi, A. (2014, May 8). The most dangerous U.S. state for workers. *CBS News*. Retrieved from <http://www.cbsnews.com/news/the-most-dangerous-us-state-for-workers/>

⁵⁹⁷ Ghahremani, Y. (2014, April 24). Fractured Healthcare: Pumping Resources Back into the Eagle For Shale Communities/Executive Summary: Methodist Healthcare Ministries and Center for Community and Business Research at the University of Texas San Antonio. Retrieved from <http://www.joomag.com/en/newsstand/fractured-healthcare-pumping-resources-back-into-the-eagle-ford-shale-communities-apr-2014/0368470001398347080>

⁵⁹⁸ Hicks, I. (2014, April 10). Gas workers risk silica exposure. *The Intelligencer, Wheeling News-Register*. Retrieved from <http://www.news-register.net/page/content.detail/id/598589/Gas-Workers-at-Risk-Of-Silica-Ex---.html>

⁵⁹⁹ Olsen, L. (2014, February 22). Houston Chronicle exclusive: Drilling boom, deadly legacy. Retrieved from <http://www.houstonchronicle.com/news/special-reports/article/Houston-Chronicle-exclusive-Drilling-boom-5259311.php#0>

⁶⁰⁰ Hsieh, S. (2014, February 25). Why are so many workers dying in oil fields? Retrieved from <http://www.thenation.com/blog/178523/why-are-so-many-workers-dying-oil-fields>

⁶⁰¹ Schneider, A., & Geewax, M. (2013, December 27). On-the-job deaths spiking as oil drilling quickly expands. Retrieved from <http://www.npr.org/2013/12/27/250807226/on-the-job-deaths-spiking-as-oil-drilling-quickly-expands>

- October 30, 2012 – In a policy statement, the American Public Health Association (APHA) asserted that, high volume horizontal hydraulic fracturing (HVHF) “poses potential risks to public health and the environment, including groundwater and surface water contamination, climate change, air pollution, and worker health.” The statement also noted that the public health perspective has been inadequately represented in policy processes related to HVHF.⁶⁰² The policy statement added:

[H]ydraulic fracturing workers are potentially exposed to inhalation health hazards from dust containing silica. There may also be impacts on workers and communities affected by the vastly increased production and transport of sand for HVHF. Inhalation of fine dusts of respirable crystalline silica can cause silicosis. Crystalline silica has also been determined to be an occupational lung carcinogen.

- 2005 – A researcher at Stanford University examined hazards associated with oil and gas extraction from exposure to radiation and determined that inhalation of high levels of radon gas is a serious concern to workers and those living nearby. Because the boiling point of radon lies between those of propane and ethane, gaseous radon (²²²Rn) will concentrate in ethane and propane fractions. “Elevated Rn activity concentration values have been measured at several processing plant sites.... It is well known that the radiological impact of the oil and gas-extracting and processing industry is not negligible.”⁶⁰³
- May 9, 2003 – A New York Medical College study re-evaluated the chest X-rays of patients with exposure to silica who died from various respiratory problems and found that more than eight percent had undiagnosed silicosis. The study suggested that occupational lung disease may be undercounted in high-risk occupations. The authors of this study said that improved OSHA standards, with ongoing exposure monitoring and medical surveillance, would significantly improve the recognition of cases and justify more stringent preventive measures to reduce exposure. They further noted that practitioners need skills in taking an occupational exposure history. Although ten years have passed since this study was published, both recommendations have yet to be implemented.⁶⁰⁴

⁶⁰² American Public Health Association. (2012, October 30). The environmental and occupational health impacts of high-volume hydraulic fracturing of unconventional gas reserves. Retrieved from <http://www.apha.org/advocacy/policy/policysearch/default.htm?id=1439>

⁶⁰³ Steinhäusler, F. (2005). Radiological impact on man and the environment from the oil and gas industry: Risk assessment for the critical group. *Nato Science Series: IV: Earth and Environmental Sciences*. doi: 10.1007/1-4020-2378-2_19. http://rd.springer.com/chapter/10.1007/1-4020-2378-2_19

⁶⁰⁴ Goodwin, S. S., Stanbury, M., Wang, M.-L., Silbergeld, E., & Parker, J. E. (2003). Previously undetected silicosis in New Jersey decedents. *American Journal of Industrial Medicine*, 44, 304-11. doi: 10.1002/ajim.10260

Public health effects, measured directly

By several measures, evidence for fracking-related health problems has emerged across the United States and Canada. Studies of birth outcomes in regions of intensive unconventional oil and gas extraction continue to point to reproductive risks, including low birth weight and preterm births. In Oklahoma and Colorado, birth defects were elevated among infants whose mothers lived near drilling and fracking sites while pregnant.

As shown by multiple studies in Pennsylvania, as the number of gas wells increase in a community, so do rates of hospitalization, and community members experience sleep disturbance, headache, throat irritation, stress/anxiety, cough, shortness of breath, sinus problems, fatigue, wheezing, and nausea. Also in Pennsylvania, hospitalizations for pneumonia among the elderly are elevated in areas of fracking activity, and one study found significantly elevated rates of bladder and thyroid cancers. In Colorado, children and young adults with leukemia were 4.3 times more likely to live in an area dense with oil and gas wells. Drilling and fracking operations in multiple states are variously correlated with increased rates of asthma; increased hospitalizations for pneumonia and kidney, bladder, and skin problems; high blood pressure and signs of cardiovascular disease; elevated motor vehicle fatalities; symptoms of depression; ambulance runs and emergency room visits; and incidence of sexually transmitted diseases.

Benzene levels in ambient air surrounding drilling and fracking operations are sufficient to elevate risks for future cancers in both workers and nearby residents, according to studies. Animal studies show numerous threats to fertility and reproductive success from exposure to various concentrations of oil and gas chemicals at levels representative of those found in drinking water. A recent study found that 43 chemicals used in drilling and fracking operations are classified as known or presumed human reproductive toxicants, while 31 others are suspected human reproductive toxicants. An earlier study identified two dozen chemicals commonly used in fracking operations as endocrine disruptors that can variously disrupt organ systems, lower sperm counts, and cause reproductive harm at realistically expected exposure levels.

- January 21, 2019 – Increased hospitalizations for diseases of the genitourinary system, such as urinary tract infections, kidney infections, and kidney stones, were “strongly and positively associated with cumulative [unconventional natural gas] well density” in Pennsylvania.⁶⁰⁵ The strongest association for the genitourinary hospitalization rates was for women aged 20 to 64, particularly for kidney infections, stones in the ureter, and urinary tract infections. The researchers compared yearly hospitalization rates for each of Pennsylvania’s 67 counties with the number of new fracking wells drilled, the total number of wells, and the density of wells by land area for each county by year, from 2003-2014. Noting that hospitalizations, in contrast with outpatient physician visits, reflect acute illness or serious exacerbations of chronic disease, the research team pointed

⁶⁰⁵ Denham, A., Willis, M., Zavez, A., & Hill, E. (2019). Unconventional natural gas development and hospitalizations: evidence from Pennsylvania, United States, 2003-2014. *Public Health*, 168, 17-25. doi: 10.1016/j.puhe.2018.11.020

out that these same health problems addressed in an outpatient setting, or not addressed at all, were likely also rising but would not have been counted in this study. The findings also revealed a link between cumulative gas well exposure measures and hospitalization rates for skin problems, particularly among men aged 20 to 64.

- December 12, 2018 – University of Oklahoma public health scientists found a significantly increased prevalence of neural tube defects among children whose birth residence was located within two miles of a drilling and fracking site, compared to those which were not.⁶⁰⁶ The researchers examined records of all 476,600 singleton births and congenital anomalies in Oklahoma from 1997 through 2009, together with historical location and production data on active natural gas wells for each year of the study. No stillbirths were included in this study. Hence, as the researchers note, the link they found would likely be an underestimate “if natural gas activity is related to severe anomalies with high prenatal mortality.”
- December 6, 2018 – Early signs of cardiovascular disease—including high blood pressure, changes in the stiffness of blood vessels, and markers of inflammation—occurred more often in people who live in communities with more intense oil and gas development, according to a study of 97 adults living in northeastern Colorado between October 2015 and May 2016.⁶⁰⁷ Artery stiffness, as measured by augmentation index, was highest among people living in areas with the greatest drilling and fracking activity, as was systolic and diastolic blood pressure (for those not taking prescription medications). This was the first study to evaluate, with direct measurements, indicators of cardiovascular disease and the intensity of oil and gas activity. The results are consistent with previous research showing increased rates of cardiology inpatient hospital admission in these areas.
- August 28, 2018 – The top 10 oil and gas producing counties in Colorado had higher truck accident rates than the remaining 54 counties in an analysis by Colorado School of Public Health researchers. Researchers also performed an additional geospatial study technique called a “grid level analysis” using the Colorado Oil and Gas information System (COGIS), census population information, and home locations. These results showed that grid cells with more homes and/or wells were associated with more truck accidents, as well as with more multi-vehicle truck accidents with an injury.⁶⁰⁸
- August 13, 2018 – Babies in Pennsylvania whose mothers lived near at least one gas well during their pregnancies were at higher risk for adverse birth outcomes, according to a study published in the *Journal of Health Economics*. This investigation examined state-

⁶⁰⁶ Janitz, A. E., Dao, H. D., Campbell, J. E., Stoner, J. A., & Peck, J. D. (2019). The association between natural gas well activity and specific congenital anomalies in Oklahoma, 1997–2009. *Environment International*, 122, 381–388. Advance online publication. doi: 10.1016/j.envint.2018.12.011

⁶⁰⁷ McKenzie, L. M., Crooks, J., Peel, J. L., Blair, B.D., Brindley, S., Allshouse, W. B., . . . Adgate, J. L. (2019). Relationships between indicators of cardiovascular disease and intensity of oil and natural gas activity in Northeastern Colorado. *Environmental Research*, 170, 56-64. doi: 10.1016/j.envres.2018.12.004

⁶⁰⁸ Blair, B. D., Hughes, J., Allshouse, W. B., McKenzie, L., & Adgate, J. L. (2018). Truck and multivehicle truck accidents with injuries near Colorado oil and gas operations. *International Journal of Environmental Research and Public Health*, 15, 1861. doi: 10.3390/ijerph15091861

based data on the locations of 2,459 natural gas wells drilled between 2006 and 2010 together with restricted-access birth and mortality data for the years 2003–2010.⁶⁰⁹ Mothers living within 2.5 kilometers (1.5 miles) of gas wells gave birth to infants with increased incidence of low birth weight and small for gestational age (SGA). SGA generally increases with exposure to environmental pollution and helps determine immediate health care needs, as well as predicting long-term adverse health outcomes. In addition, the study found term birth weight for these infants was lower on average, and the prevalence of APGAR scores less than eight was increased by 26 percent. APGAR scores are used to evaluate the health of infants immediately after birth. This study builds on growing evidence that air pollution from shale gas development damages infant health and stands out for thoroughly controlling for predictors of infant health and for estimating the extensive and intensive margins of drillings. Within the intensive margin (which includes an estimation of the impact of well density), one additional well was associated with a seven percent increase in low birth weight, a five gram reduction in term birth weight, and a three percent increase in premature birth. Each of these adverse outcomes carries high associated medical costs. The author conservatively estimated the added cost associated with one low birth weight infant to be \$96,500 in the first year alone, not counting any loss of parent income. The author noted that these impacts are “likely to persist throughout these children’s lives.”

- August 10, 2018 – A study of Pennsylvania counties focusing on the period 2003–2012 found that counties with fracking activities have higher rates of gonorrhea and chlamydia infections (up 7.8 percent and 2.6 percent, respectively), as well as a 19.7 percent higher rate of prostitution-related arrests.⁶¹⁰ Authors found no evidence that confounding factors such as opioid prescription rates, viral hepatitis deaths, or drug abuse arrests influenced these results. These findings provide “strong evidence that unconventional or shale gas development poses significant risks to public health and that unconventional or shale gas development has policy implications beyond the economic and environmental impacts often cited.”
- July 28, 2018 – Road fatalities in the Permian Basin region of west Texas have risen and fallen with the price of oil, according to an investigative piece in *Bloomberg* using New York Mercantile Exchange and Texas Department of Transportation data.⁶¹¹ Interviewees in the article pointed to inexperienced and exhausted drivers, sinkholes, oversized trucks on roads not designed for the amount of traffic they now carry, and other factors as reasons for the ongoing fatalities.
- July 27, 2018 – In this study of almost 5,000 Pennsylvanians, a team of medical and public health scientists found a link between living closer to more and bigger

⁶⁰⁹ Hill, E. (2018). Shale gas development and infant health: Evidence from Pennsylvania. *Journal of Health Economics*, 61, 134–150. doi: 10.1016/j.jhealeco.2018.07.004

⁶¹⁰ Beleche, T., & Cintina, I. (2018). Fracking and risky behaviors: Evidence from Pennsylvania. *Economics and Human Biology*, 31, 69-82. doi: 10.1016/j.ehb.2018.08.001

⁶¹¹ Collins, R., & Adams-Heard, R. (2018, July 28). ‘Death Highway’ is where oil prices, truck fatalities intersect. *Bloomberg*. Retrieved from <https://www.bloomberg.com/news/articles/2018-07-28/-death-highway-is-where-oil-prices-truck-fatalities-intersect>

unconventional shale gas wells and increased symptoms of depression. This is the first epidemiologic study to address a mental health outcome with regard to proximity to fracking and related operations. The researchers combined information from a mailed questionnaire, electronic health record data, and residential proximity to more and bigger wells, using well data from three agencies. Size of wells was ascertained by combining data on total well depth and volume of natural gas produced. Researchers concluded that drilling and fracking activities “may be associated with adverse mental health in Pennsylvania” and called for including potential mental health consequences in future risk-benefit calculations.⁶¹²

- June 21, 2018 – Using individual inpatient data for the whole state of Pennsylvania from 2003 through 2014, researchers found consistent associations between childhood asthma hospitalizations and nearby drilling and fracking activity. When they compared unexposed children to children in the top third of patients exposed to shale gas drilling, the research team found that, during the same calendar quarter a gas well was drilled, the odds of children and adolescents being hospitalized for asthma increased by 25 percent. If there was ever a well drilled within a zip code, the odds of these pediatric asthma-related hospitalizations increased by 19 percent. This finding demonstrates that the increased risk remains for years after wells are drilled.⁶¹³ This study is notable because it is the first to control for 180 pre-existing respiratory health risks. Researchers also considered specific air emissions from drilling and fracking sites. They found that increased levels of 2,2,4-trimethylpentane, carbon dioxide, formaldehyde, nitrous oxide, volatile organic compounds (VOCs), and x-hexane were associated with increased risks of pediatric asthma hospitalizations across age groups, as well as links for younger children to additional pollutants.
- May 21, 2018 – Using the most stringent classification within and across countries internationally, researchers examined reproductive toxicity among chemicals used in drilling and fracking operations for oil and gas. They found that 43 chemicals are classified as known or presumed human reproductive toxicants, while 31 others are suspected human reproductive toxicants. The team, which included Yale School of Medicine and School Public of Health researchers, further analyzed the 43 reproductive toxicants for their carcinogenic and mutagenic properties and found that seven reproductive toxicants doubled as carcinogens and mutagens. They are potassium dichromate, cadmium, benzene, ethylene oxide, nickel sulfate, N,N-dimethylformamide, and lead. Of these, benzene and lead are found in both fracking fluid and in fracking wastewater. Researchers noted that their study was limited to 157 chemicals previously identified as having evidence of reproductive toxicity, which is only a fraction of the more than 1000 chemicals identified as being present in fracking fluid, fracking wastewater, and fracking-related air emissions. They recommended that their framework

⁶¹² Casey, J. A., Wilcox, H. C., Hirsch, A. G., Pollak, J., & Schwartz, B.S. (2018). Associations of unconventional natural gas development with depression symptoms and disordered sleep in Pennsylvania. *Scientific Reports*, 8. doi: 10.1038/s41598-018-29747-2

⁶¹³ Willis, M. D., Jusko, T. A., Halterman, J. S., & Hill, E. L. (2018). Unconventional natural gas development and pediatric asthma hospitalizations in Pennsylvania. *Environmental Research*, 166, 402-408. doi: 10.1016/j.envres.2018.06.022

be extended to all those chemicals.⁶¹⁴ (See also entry for January 6, 2016 in Water Contamination.)

- May 1, 2018 – In a laboratory study, prenatal exposure to fracking-related chemicals triggered immune problems in mice, especially females. All three immune system illnesses tested—a house dust mite-induced allergic disease, influenza A virus, and a disease similar to multiple sclerosis—were impaired in mice exposed in the womb to a mixture of fracking chemicals.⁶¹⁵ Using a chemical mixture “laced with chemicals at levels similar to those found in groundwater near fracking sites” and already demonstrated to have harmful developmental and reproductive effects, the researchers found sex-linked effects.⁶¹⁶ The exposed female mice showed more severe damage to their immune systems and ability to resist disease. In addition, the multiple sclerosis-like disease, experimental autoimmune encephalomyelitis, developed earlier and more severely in female mice as compared to male mice. Authors concluded, “These observations suggest that developmental exposure to complex mixtures of water contaminants, such as those derived from [drilling and fracking] operations, could contribute to immune dysregulation and disease later in life.”
- March 23, 2018 – Yale University public health scientists investigated possible connections between shale gas drilling and sexually transmitted diseases in Ohio. They found that, compared to counties with no shale gas activity, counties with high activity had 21 percent increased rates of chlamydia and 19 percent increased rates of gonorrhea.⁶¹⁷ They classified all 88 counties in the state as having none, low, and high shale gas activity in each year from 2000 through 2016, using Ohio Department of Natural Resources data. Their findings showed magnitude of effect for the association with gonorrhea that is similar to a prior analysis, adding strength to observed associations. Speaking to the *Columbus Dispatch*, the lead author noted, “Although there has been a decrease in new permits in recent years, [sexually transmitted infection] rates continue to climb because once a disease is introduced... it can be exchanged within the communities even after the workers leave.”⁶¹⁸

⁶¹⁴ Inayat-Hussain, S. H., Fukumura, M., Muiz Aziz, A., Jin, C. M., Jin, L.W., Garcia-Milian, R., . . . Deziel, N. C. (2018). Prioritization of reproductive toxicants in unconventional oil and gas operations using a multi-country regulatory data-driven hazard assessment. *Environment International*, 117, 348-358. doi: 10.1016/j.envint.2018.05.010

⁶¹⁵ Boulé, L. A., Chapman, T. J., Hillman, S. E., Kassotis, C. D., O’Dell, C., Robert, J., . . . Lawrence, B. P. (2018). Developmental exposure to a mixture of 23 chemicals associated with unconventional oil and gas operations alters the immune system of mice. *Toxicological Sciences*, 163(2), 639–654. doi: 0.1093/toxsci/kfy066

⁶¹⁶ Adams, B. (2018, May 1). Exposure to chemicals used in fracking impairs immune system of mice in URMC study. *WXXI News*. Retrieved from <https://www.wxxinews.org/post/exposure-chemicals-used-fracking-impairs-immune-system-mice-urmc-study>

⁶¹⁷ Deziel, N. C., Humeau, Z., Elliott, E. G., Warren, J. L., & Nicolai, L. M. (2018). Shale gas activity and increased rates of sexually transmitted infections in Ohio, 2000–2016, *PLoS ONE* 13(3). doi: 10.1371/journal.pone.0194203

⁶¹⁸ Marshall, A. (2018, 22 July). Study suggests potential link between fracking industry and increased sexually transmitted infections. *Columbus Dispatch*. Retrieved from <https://www.dispatch.com/news/20180722/study-suggests-potential-link-between-fracking-industry-and-increased-sexually-transmitted-infections>

- March 20, 2018 – In the Texas Barnett Shale, women with homes within a half-mile radius of the most dense gas drilling activity or gas production activity at the time of their child’s birth had, respectively, 20 percent and 15 percent higher risk of preterm birth, compared with women with no such activity near their residence. The greatest proximity-related risk was for extremely premature births (prior 28 weeks gestation): mothers living near the densest drilling activity and the densest production activity were, respectively, 100 percent and 53 percent more likely to give birth to extremely premature babies.^{619, 620} For purposes of this study, the drilling phase included drilling of the wellbore, installation of casing, and fracking, whereas the production phase, which can last for years, included the flowback of gas, condensate, and produced water, as well as possible on-site storage of these materials. Researchers noted that they did not have access to information that would have allowed more refined classification of phases. The study included 13,332 preterm birth cases and 66,933 term births in the 24-county Barnett Shale region between 2010 and 2012. The study also addressed trimester-specific differences in risk, finding little evidence for that factor. (See also entry for September 19, 2017.)
- March 13, 2018 – A research team found higher rates of hospitalizations for pneumonia among individuals ages 65 and older in Pennsylvania counties with drilling and fracking operations compared to those without. This result is consistent with other studies reporting links between respiratory problems and air pollution. This study, which used enhanced county-specific data from 2001 to 2013, expands on earlier research in its geographical reach and longer time horizon. The research team also found higher average hospitalization rates for other air pollution-sensitive diseases (acute myocardial infarction, chronic obstructive pulmonary disease, asthma, and upper respiratory infections) in counties containing unconventional natural gas wells than in those without wells, but those links were not as strong statistically as for pneumonia among the elderly. Noting that their study design may actually underestimate the impact of natural gas development on pneumonia, the research team stated that their study “helps establish a consistent link between unconventional natural gas extraction and higher rates of disease.”⁶²¹
- February 7, 2018 – Female mice exposed to a mixture of 23 fracking chemicals during early life developed dose-specific abnormalities in their mammary glands. The researchers saw changes in tissue morphology, cell proliferation, “and the induction of unique intraductal hyperplasias.”⁶²² (Intraductal hyperplasia is an overgrowth of cells that is considered a marker for future breast cancer risk.) Researchers used four doses; the lower two used were equivalent to concentrations found in drinking water in fracking

⁶¹⁹ Whitworth, K. W., Marshall, A. K., & Symanski, E. (2018). Drilling and production activity related to unconventional gas development and severity of preterm birth. *Environmental Health Perspectives*, 126(3). doi: 10.1289/EHP2622

⁶²⁰ Konkol, L. (2018). Drilling into critical windows of exposure: Trimester-specific associations between gas development and preterm birth, *Environmental Health Perspectives*, 126(10). doi: 10.1289/EHP3762

⁶²¹ Peng, L., Meyerhoefer, C., & Chou, S.-Y. (2018). The health implications of unconventional natural gas development in Pennsylvania. *Health Economics*, 27, 956–983 doi: 10.1002/hec.3649

⁶²² Sapouckey, S. A., Kassotis, C. D., Nagel, S. C., & Vandenberg, L. N. (2018). Prenatal exposure to unconventional oil and gas operation chemical mixtures altered mammary gland development in adult female mice. *Endocrinology*, 159, 1277–1289. doi: 10.1210/en.2017-00866

regions and the highest dose represented concentrations that have been measured in industry wastewater. Mammary gland effects varied for each the doses, but all groups developed intraductal hyperplasia. According to a co-author, “This study shows that a mixture of [fracking] chemicals can affect the long-term health of the mouse mammary gland, even after low level exposures in the womb.”⁶²³

- January 15, 2018 – A study of urban oil drilling in two Los Angeles neighborhoods found elevated asthma rates among residents living within 1,500 feet of oil wells. Researchers compared diagnosed asthma rates in these areas to a representative comparison area (the California Health Interview Survey’s “SPA6” in South Los Angeles) and to Los Angeles County as a whole.⁶²⁴ The diagnosed asthma rates in the two study areas were statistically significantly higher (16.1 percent and 23.6 percent) than the comparison area (9.8 percent). Asthma prevalence in one of the two study areas was significantly higher than that in Los Angeles County as a whole. Households with smokers were excluded from the analysis. This interdisciplinary team worked in partnership with the local residents to conduct this community-based survey with limited resources and urged further studies with more complex scientific design.
- December 13, 2017 – A team of health economists analyzed fracking’s health impacts on infants. They examined birth certificates for all 1.1 million infants born in Pennsylvania between 2004 and 2013 and combined these data with maps showing when and where gas wells were drilled in the state. Their results indicated that the introduction of fracking “reduces health among infants born to mothers living within 3 km (1.9 miles) of a well site during pregnancy.” For mothers living within one kilometer (.6 miles), they found a 25 percent increase in the probability of low birth weight, “significant declines” in average birth weight, as well as declines in other measures of infant health. They also observed reductions in infant health when mothers lived within one to three kilometers of a fracking site; these were about one-third to one-half of the declines of those mothers living closer.⁶²⁵ The researchers estimated that “about 29,000 out of the nearly 4 million U.S. births (0.7 percent) annually occur within 1 kilometer of a fracking site and 95,500 are born within 3 kilometers.” “For policymakers weighing the costs and benefits of fracking before deciding whether to allow it in their communities, this study provides a clear cost: an increase in the probability of poorer health for babies born near these sites.”⁶²⁶

⁶²³ University of Massachusetts at Amherst. (2018, February 7). Changes in mouse breast tissue after exposure to fracking chemicals. *ScienceDaily*. Retrieved from <https://www.sciencedaily.com/releases/2018/02/180207090108.htm>

⁶²⁴ Shamasunder, B., Collier-Oxandale, A., Blickley, J., Sadd, J., Chan, M., Navarro, S., . . . Wong, N. J. (2018). Community-based health and exposure study around urban oil developments in South Los Angeles. *International Journal of Environmental Research and Public Health*, 15. doi: 10.3390/ijerph15010138

⁶²⁵ Currie, J., Greenstone, M., & Meckel, K. (2017). Hydraulic fracturing and infant health: New evidence from Pennsylvania. *Science Advances*, 3(12), e1603021. doi: 10.1126/sciadv.1603021

⁶²⁶ Currie, J., Greenstone, M., & Meckel, K. (2017). Hydraulic fracturing and infant health: New evidence from Pennsylvania (Research Summary). *Energy Policy Institute at the University of Chicago*. Retrieved from https://epic.uchicago.edu/sites/default/files/EPIC_121017_FrackingResearchSummary_Final.121317.pdf

- November 6, 2017 – As part of a pilot project, a team of Montreal-based public health researchers evaluated exposure of pregnant mothers to VOCs in an area of intensive fracking in northeastern British Columbia. At least 28,000 unconventional natural gas wells had been drilled to date in the Peace River Valley. Analyzing the urine of 29 pregnant women, researchers found high concentrations of muconic acid, which is a degradation product of benzene, a widely studied developmental toxicant and an air contaminant in the vicinity of gas wells. The median concentration of this chemical was approximately 3.5 times higher in the study group than in the general Canadian population. In five of the 29 women, the concentration of muconic acid exceeded an exposure index by the American Conference of Governmental Industrial Hygienists that was designed for workplace settings. (No guidelines for the public exist.) By design, this small pilot study sets the groundwork for more extensive biomonitoring and environmental analysis.⁶²⁷
- September 19, 2017 – University of Texas Health Science Center researchers conducted a case-control study nested within their larger cohort of women with single births (see entry for July 21, 2017, below) in the 24-county Barnett Shale between November 30, 2010 and November 29, 2012. Its specific purpose was to consider timing of unconventional gas development activity “during potentially sensitive windows of exposure,” as well as “potential differences in risk by UGD drilling phase,” with regard to preterm births. Results suggest a link between maternal residential proximity to UGD-activity and preterm births, which were similar by drilling phase and “slightly stronger in the first two trimesters of pregnancy.”⁶²⁸
- September 14, 2017 – Researchers reviewed health assessments taken between February 2012 and October 2015 of adults in Pennsylvania communities with intense unconventional natural gas development (UNGD). The most frequently reported symptoms were sleep disturbance, headache, throat irritation, stress/anxiety, cough, shortness of breath, sinus problems, fatigue, wheezing, nausea, each occurring in over 20 percent of the sample. Over 43 percent of the sample reported sleep disturbance. To meet the inclusion criteria, as developed and implemented by a physician and nurse practitioner, the symptoms were reviewed to ensure no plausible cause relating to “past medical and surgical history, concurrent medical conditions, family and social history, and environmental exposures unrelated to UNGD. For example, if the social history indicated a ½ pack/day smoking history, the symptom of ‘difficulty breathing’ was not included.” Independently, the timing of the exposure for each symptom that met the inclusion criteria was determined, using the beginning drilling date for each unconventional natural gas well within one kilometer (.6 miles) of the patient’s residence;

⁶²⁷ Caron-Beaudoin, É, Valter, N., Chevrier, J., Ayotte, P., Frohlich, K., & Verner, M.-A. (2017). Gestational exposure to volatile organic compounds (VOCs) in Northeastern British Columbia, Canada: A pilot study. *Environment International*, 110, 131-138. doi: 10.1016/j.envint.2017.10.022

⁶²⁸ Marshall, A. K., Symanski, E., & Whitworth, K. W. (2017). The association between unconventional gas development and preterm birth: Evaluating drilling phases and critical windows of susceptibility [Abstract]. *Annals of Epidemiology*, 27(8), 530.

records were excluded if it was not possible to verify at least one gas well within this distance.⁶²⁹

- August 21, 2017 – Using county-level data from 2003 to 2013, researchers found that, all together, counties in the Marcellus Shale region that experienced a boom in hydraulic fracturing showed a 20 percent increase in the incidence rate of gonorrhea.⁶³⁰
- July 21, 2017 – A University of Texas Health Science Center School of Public Health team assessed the links between the residential proximity of pregnant mothers to unconventional natural gas development activity and various newborn health problems: preterm birth, small-for-gestational age (SGA), fetal death, and low birth weight. They found evidence of a “moderate positive association” between residential proximity to UGD-activity and increased odds of preterm birth, and a “suggestive association” with fetal death. Nearly 159,000 births and fetal deaths from November 30, 2010 to November 29, 2012 in the 24-county Barnett Shale area were considered.⁶³¹
- February 15, 2017 – A study from the University of Colorado School of Public Health and Anschutz Medical Campus showed that children and young adults between the ages of 5 and 24 with acute lymphocytic leukemia (ALL) were 4.3 times more likely to live in area dense with active oil and gas wells. The researchers did not find such a link with ALL cases in 0-4 year olds, or with incidence of non-Hodgkin lymphoma. The study focused on rural areas and towns in 57 Colorado counties and did not include cities of more than 50,000 people. Authors wrote, “Because oil and gas development has potential to expose a large population to known hematologic carcinogens, such as benzene, further study is clearly needed to substantiate both our positive and negative findings.”⁶³²
- October 26, 2016 – A study that investigated possible links between fracking and cancer incidence in southwest Pennsylvania found elevated rates of bladder and thyroid cancers in six counties with shale gas activity.⁶³³ Bladder cancer was elevated in both males and females, with a 10 percent increase in the number of observed cases from 2000 to 2012. Over the same time period, thyroid cancer jumped even more dramatically. “There was a huge 91.2% increase in the number of observed cases from 2000 to 2012.” Patterns of leukemia incidence were less clearly related to shale gas activity. The author expressed caution in attributing these trends solely to shale gas development due to “the multiple

⁶²⁹ Weinberger, B., Greiner, L. H., Walleigh, L., & Brown, D. (2017). Health symptoms in residents living near shale gas activity: A retrospective record review from the Environmental Health Project. *Preventive Medicine Reports*, 8, 112-115. doi: 10.1016/j.pmedr.2017.09.002

⁶³⁰ Komarek, T., & Cseh, A. (2017). Fracking and public health: Evidence from gonorrhea incidence in the Marcellus Shale region. *Journal of Public Health Policy*, 38(4), 464-481. doi: 10.1057/s41271-017-0089-5

⁶³¹ Whitworth, K. W., Marshall, A. K., & Symanski, E. (2017). Maternal residential proximity to unconventional gas development and perinatal outcomes among a diverse urban population in Texas. *PLOS ONE*, 12(7), e0180966. doi: 10.1371/journal.pone.0180966

⁶³² McKenzie, L. M., Allshouse, W. B., Byers, T. E., Bedrick, E. J., Serdar, B., & Adgate, J. L. (2017). Childhood hematologic cancer and residential proximity to oil and gas development. *PLOS ONE*, 12(2), e0170423. doi: 10.1371/journal.pone.0170423

⁶³³ Finkel, M. L. (2016). Shale gas development and cancer incidence in southwest Pennsylvania. *Public Health*, 141, 198-206. doi: 10.1016/j.puhe.2016.09.008

sources of potentially toxic, harmful exposures in southwest Pennsylvania, many dating back decades,” the long latency time required for many cancers to develop, and possible synergisms between exposures from shale gas development and past toxic exposures.

- August 25, 2016 – Researchers found that Pennsylvanians residing near intensive unconventional gas well activity were significantly more likely to experience chronic rhino sinusitis (at least three months of nasal and sinus symptoms), migraine headaches, and higher levels of fatigue than residents who do not live near such activity.⁶³⁴ Data were gathered from nearly 8,000 patients of Geisinger Health System from 40 counties in north and central Pennsylvania, and matched with the proximity of respondents to all phases of gas drilling activity and intensity, using information from the Pennsylvania Departments of Environmental Protection (PA DEP) and Conservation and Natural Resources, as well as satellite imagery. According to lead author Aaron W. Tustin, MD, MPH, resident physician in the Department of Environmental Health Sciences at the Johns Hopkins Bloomberg School of Public Health, “[t]hese three health conditions can have debilitating impacts on people’s lives... In addition, they cost the health care system a lot of money.”⁶³⁵
- July 18, 2016 – Living near fracking operations significantly increases asthma attacks, according to a Johns Hopkins University study of 35,000 medical records of people with asthma in north and central Pennsylvania, from 2005 to 2012.⁶³⁶ The data show that those who live near a higher number of, or larger, active gas wells were 1.5 to 4 times more likely to suffer from asthma attacks compared to those who live farther away, with the closest group having the highest risk. There was increased risk in all three types of exacerbations defined: mild (new oral corticosteroid medication order), moderate (emergency department encounter), or severe (hospitalization). In addition, researchers identified increased risk during all four phases of well development: pad preparation, drilling, stimulation (fracking), and production. The study was praised for its “rigorous research methods,” by a scientist not part of the team.⁶³⁷
- July 5, 2016 – Researchers from five universities and the U.S. Geological Survey (USGS) identified a link between exposure to fracking and drilling chemicals and adverse reproductive and developmental outcomes in laboratory mice. The study used 23 oil and gas chemicals in four different concentrations, representing concentrations found in drinking water and groundwater, to higher concentrations found in oil and gas industry

⁶³⁴ Tustin, A. W., Hirsch, A. G., Rasmussen, S. G., Casey, J. A., Bandeen-Roche, K., & Schwartz, B. S. (2017). Associations between unconventional natural gas development and nasal and sinus, migraine headache, and fatigue symptoms in Pennsylvania. *Environmental Health Perspectives*, 125, 189-197. doi: 10.1289/EHP281

⁶³⁵ Phillips, S. (25 August, 2016). New study links gas drilling to migraines, fatigue and chronic sinus symptoms. *State Impact Pennsylvania*. Retrieved from <https://stateimpact.npr.org/pennsylvania/2016/08/25/new-study-points-to-association-between-gas-drilling-to-migraines-fatigue-and-chronic-sinus-symptoms/>

⁶³⁶ Rasmussen, S. G., Ogburn, E. L., McCormack, M., Casey, J. A., Bandeen-Roche, K. Mercer, D. G., & Schwartz, B. S. (2016). Association between unconventional natural gas development in the Marcellus Shale and asthma exacerbations. *JAMA Internal Medicine*. Advance online publication. doi: 10.1001/jamainternmed.2016.2436

⁶³⁷ Song, L., & Kusnetz, N. (2016, July 18). Increased asthma attacks tied to exposure to natural gas production. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/18072016/asthma-study-marcellus-shale-pennsylvania-natural-gas-fracking>

wastewater. Offspring of pregnant laboratory mice consuming these mixtures were compared to those that did not. Results suggested “numerous potential threats to fertility and reproductive success . . . including altered pituitary hormone levels, reproductive organ weights, and disrupted ovarian follicle development.” Researchers observed these negative outcomes even in the offspring exposed to the lowest dose of chemicals. Building on previous research showing reduced sperm counts in male offspring, they also reported on “tentative mechanistic information for the observed adverse health effects.”⁶³⁸

- February 9, 2016 – An exploratory study of hospitalization rates for three study areas in Queensland, Australia showed rates for specific types of hospital admissions increased more quickly in a coal seam gas study area than in other study areas (a coal mining area and a rural/agricultural area). Coal seam gas is the methane trapped in pores and fractures in underground coal deposits; its exploitation is a form of unconventional natural gas development. A portion of coal seam gas extraction uses fracking. This preliminary study found the strongest link between increased hospitalization rates over time in a coal seam gas area to be for the category of ‘Blood/immune’ diseases.⁶³⁹
- October 14, 2015 – Using an animal model, an interdisciplinary research team measured the endocrine-disrupting activities of 24 chemicals used and/or produced by oil and gas operations, finding that 23 of them “can activate or inhibit the estrogen, androgen, glucocorticoid, progesterone, and/or thyroid receptors, and mixtures of these chemicals can behave synergistically, additively, or antagonistically.” Further, the researchers tested prenatal exposures to the chemicals and found effects on multiple organs, including adverse reproductive effects on the matured offspring.⁶⁴⁰ This study is the first to demonstrate that endocrine-disrupting chemicals, which are commonly used in fracking operations, can harm the reproductive health of mice, at levels of exposure that are realistic for humans. The study’s senior author told *ScienceDaily*, “In addition to reduced sperm counts, the male mice exposed to the mixture of chemicals had elevated levels of testosterone in their blood and larger testicles. These findings may have implications for the fertility of men living in regions with dense oil and/or natural gas production.”⁶⁴¹
- October 8, 2015 – Pregnant women who live near active fracking operations in Pennsylvania were at a 40 percent increased risk of giving birth prematurely and at a 30 percent increased risk for having obstetrician-labeled high-risk pregnancies, according to a study by Johns Hopkins Bloomberg School of Public Health and other researchers.

⁶³⁸ Kassotis, C. D., Bromfield, J. J., Klemp, K. C., Meng, C-X., Wolfe, A., Zoeller, R. T., . . . Nagel, S. C. (2016). Adverse reproductive and developmental health outcomes following prenatal exposure to a hydraulic fracturing chemical mixture in female C57Bl/6 Mice. *Endocrinology*, 157(9), 3469–3481. doi: 10.1210/en.2016-1242

⁶³⁹ Werner, A. K., Watt, K., Cameron, C. M., Vink, S., Page, A., & Jagals, P. (2016). All-age hospitalization rates in coal seam gas areas in Queensland, Australia, 1995–2011. *BMC Public Health*, 16(125). doi: 10.1186/s12889-016-2787-5

⁶⁴⁰ Kassotis, C.D., Klemp, K.C., Vu, D.C., Lin, C.-H., Meng, C.-X., Besch-Williford, C.L., . . . Nagel, S.C. (2015). Endocrine-disrupting activity of hydraulic fracturing chemicals and adverse health outcomes after prenatal exposure in male mice. *Endocrinology* 156(12), 4458–4473. doi: 10.1210/en.2015-1375

⁶⁴¹ Endocrine Society. (2015, October 14). Fracking chemicals tied to reduced sperm count in mice. *ScienceDaily*. Retrieved from www.sciencedaily.com/releases/2015/10/151014134533.htm

High-risk pregnancies were those that included hypertension, high pre-pregnancy body mass index, and asthma. The study used data from the Geisinger Health System on 9,384 pregnant women and their 10,496 newborns between January 2009 and January 2013; Geisinger covers 40 counties in north and central Pennsylvania. Researchers developed an index for proximity to fracking wells based on distance from the women’s homes, stage of drilling and depth of wells dug, and the amount of gas that was produced at those wells during the pregnancies. The highest-activity quartile had the highest rates of premature births and high-risk pregnancies.^{642, 643}

- July 22, 2015 – Using a mammal model, New York University School of Medicine scientists, together with other U.S. and Chinese researchers, demonstrated cancerous changes linked to exposure to wastewater from Marcellus fracking operations. Their study also documented elevated levels of barium and strontium in exposed animal cells. The wastewater studied originated in Pennsylvania and was stored for a time to allow radioactivity and levels of short-lived VOCs to decline. The results suggest that “even aged flow back water could pose substantial health threats to exposed humans.”⁶⁴⁴
- July 15, 2015 – A study by University of Pennsylvania and Columbia University researchers found that drilling and fracking activity was associated with increased rates of hospitalization in Pennsylvania. During a period of dramatic increase in drilling and fracking activity between 2007 and 2011, inpatient prevalence rates surged for people living near shale gas wells. Cardiology inpatient prevalence rates were significantly associated with number of wells per zip code and their density, while neurology inpatient prevalence rates were significantly associated with density of wells. Hospitalizations for cancer, skin conditions, and urological problems also rose significantly. During the same time period, no such increase in health problems was observed in a control Pennsylvania county without any drilling and fracking activity. In communities with the most wells, the rate of cardiology hospitalizations was 27 percent higher than in control communities with no fracking. “While the clinical significance of the association remains to be shown, [fracking] has just begun in Pennsylvania, and thus observing a significant association over this short time is striking.... Our study also supports the concept that health care utilization should be factored into the value (costs and benefits) of hydraulic fracturing over time.”⁶⁴⁵ In a related *Newsweek* story, lead researcher Reynold Panettieri, Jr. said, “At this point, we suspect that residents are exposed to many toxicants, noise and social stressors due to hydraulic fracturing near their homes and this may add to the increased

⁶⁴² Casey, J. A., Savitz, D. A., Rasmussen, S. G., Ogburn, E. L., Pollak, J., Mercer, D. G., & Schwartz, B. S. (2016). Unconventional natural gas development and birth outcomes in Pennsylvania, USA. *Epidemiology* 27(2), 163–172. doi: 10.1097/EDE.0000000000000387

⁶⁴³ Johns Hopkins Bloomberg School of Public Health. (2015, October 8). Study: fracking industry wells associated with premature birth. Retrieved from <http://www.jhsph.edu/news/news-releases/2015/study-fracking-industry-wells-associated-with-premature-birth.html>

⁶⁴⁴ Yao, Y., Chen, T., Shen, S. S., Niu, Y., DesMarais, T. L., Linn, R., . . . Costa, M. (2015). Malignant human cell transformation of Marcellus Shale gas drilling flow back water. *Toxicology and Applied Pharmacology*, 288, 121–130. doi: 10.1016/j.taap.2015.07.011

⁶⁴⁵ Jemielita T., Gerton G. L., Neidell, M., Chillrud S., Yan B., Stute, M., . . . Panettieri, Jr., R. A. (2015). Unconventional gas and oil drilling is associated with increased hospital utilization rates. *PLoS ONE* 10(7), e0131093. doi: 10.1371/journal.pone.0131093

number of hospitalizations.”⁶⁴⁶

- July 9, 2015 – As part of a scientific assessment of well stimulation treatments, including fracking, the California Council on Science and Technology studied the potential impacts of well stimulation on human health in California. The risk factors directly attributable to well stimulation stem largely from the use of a very large number and quantity of stimulation chemicals. The unknown number and toxicity of chemicals that are mixed together in well stimulation fluids made it difficult to fully quantify risk to the environment and to human health, but the study highlighted the potential health risks from exposure to fracking-related air pollution for the people of Los Angeles, 1.7 million of whom live or work within one mile of an active oil or gas well.⁶⁴⁷ Jane Long, co-author, said, “officials should fully understand the toxicity and environmental profiles of all chemicals before allowing them to be used in California's oil operations,” according to the *Los Angeles Times*.⁶⁴⁸
- June 22, 2015 – A longtime midwife reported her personal analysis of an ongoing spike in infant deaths, miscarriages, and placental abnormalities in Utah’s Uintah Basin that has followed the advent of drilling and fracking activity there and appears linked to air pollution episodes.⁶⁴⁹
- June 3, 2015 – A University of Pittsburgh study linked fracking to low birthweight in three heavily drilled Pennsylvania counties. The more exposure a pregnant woman had to gas wells, the higher her risk for a smaller-than-normal baby. Exposure was determined as proximity and density of wells in relation to the residence of the pregnant woman. Compared to mothers whose homes had the fewest surrounding gas wells, mothers whose homes were nearest to a high density of wells were 34 percent more likely to have babies who were “small for gestational age,” meaning they weighed significantly less than expected for the number of weeks of pregnancy. Although the study did not investigate mechanisms, researchers identified air as the likely route of exposure. They supported this argument by referencing another study done in Western Pennsylvania where airborne particulate pollution correlated with low birth weight and by noting that particulates are established shale gas infrastructure emissions.^{650, 651} Low birth weight is a leading cause

⁶⁴⁶Schlanger, Z. (2015, July 15). Living near fracking wells linked to increased hospitalization rates. *Newsweek*. Retrieved from <http://www.newsweek.com/living-near-fracking-wells-linked-increased-hospitalization-rates-354093>

⁶⁴⁷Shonkoff, S. B. C., Maddalena, R. L., Hays, J., Stringfellow, W., Wettstein, Z. S., Harrison, R., Sandelin, W., & McKone, T. E. (2015, July 9). Potential impacts of well stimulation on human health in California, in California Council of Science and Technology and Lawrence Berkeley National Laboratory, *An Independent Scientific Assessment of Well stimulation in California, vol. 2: Potential Environmental Impacts of Hydraulic Fracturing and Acid Stimulations*. Retrieved from <http://ccst.us/publications/2015/2015SB4-v2.pdf>

⁶⁴⁸Cart, J. (2015, July 9). Water and wildlife may be at risk from fracking’s toxic chemicals, panel finds. *Los Angeles Times*. Retrieved from <http://www.latimes.com/local/lanow/la-me-california-science-panel-warns-that-fracking-poses-unknown-risk-20150709-story.html>

⁶⁴⁹Solotaroff, P. (2015, June 22). What’s killing the babies of Vernal, Utah? *Rolling Stone*. Retrieved from <http://www.rollingstone.com/culture/features/fracking-whats-killing-the-babies-of-vernal-utah-20150622>

⁶⁵⁰Shaina, L. S., Brink, L. L., Larkin, J. D., Sadovsky, Y., Goldstein, B. C., Pitt, B. R., & Talbott, E. O. (2015). Perinatal outcomes and unconventional natural gas operations in southwest Pennsylvania. *PLoS One*, *10*, e0126425. doi: 10.1371/journal.pone.0126425

of infant mortality.

- March 3, 2015 – A follow-up study of 21 case studies from five states found that the distribution of symptoms in animals and humans affected by nearby fracking operations was, since 2012, unchanged for humans and companion animals. In food animals, reproductive problems decreased over time while respiratory problems and growth problems increased. “This longitudinal case study illustrates the importance of obtaining detailed epidemiological data on the long-term health effects of multiple chemical exposures and multiple routes of exposure that are characteristic of the environmental impacts of unconventional drilling operations.”⁶⁵²
- March 3, 2015 – A cross-sectional study by Yale University School of Medicine researchers using companion animals as sentinels of human exposure to fracking-related chemicals investigated possible associations between reported health conditions of companion and backyard animals in Southwest Pennsylvania and household proximity to drilling and fracking operations. Among dogs living in households located less than one kilometer from a gas well, risks for health problems were elevated, especially for dermal conditions, compared to animals living more than two kilometers from a well.⁶⁵³
- January 1, 2015 – A Yale-led team studied the relationship between household proximity to drilling and fracking operations and reported health symptoms in Washington County, Pennsylvania where 624 gas wells were in active operation, most of which had been drilled in the past five to six years. Researchers found that health symptoms reported by residents increased in frequency as distance between household and gas wells decreased. Among persons living less than one kilometer from drilling and fracking operations, rashes and upper respiratory problems were more prevalent. The authors of this study, the largest to date on the link between reported symptoms and natural gas drilling activities, say that their findings are “... consistent with earlier reports of respiratory and dermal conditions in persons living near natural gas wells.” They also cite literature demonstrating the biological plausibility of a link between oil and gas extraction activities and both categories of health effects reported.⁶⁵⁴
- December 17, 2014 – As part of a lengthy review that became the foundation for New York State’s ban on high volume hydraulic fracturing, the New York State Department of

⁶⁵¹ Preidt, R. (2015, June 3). ‘Fracking’ linked to low birth weight babies, *WebMD*. Retrieved from <http://www.webmd.com/parenting/baby/news/20150603/fracking-linked-to-low-birth-weight-babies>

⁶⁵² Bamberger, M., & Oswald, R. E. (2015). Long-term impacts of unconventional drilling operations on humans and animal health. *Journal of Environmental Science and Health, Part A: Toxic/Hazardous Substances and Environmental Engineering*, 50, 447-59. doi: 10.1080/10934529.2015.992655

⁶⁵³ Slizovskiy, I. B., Conti, L. A., Trufan, S. J., Reif, J. S., Lamers, V. T., Stowe, M. H., Dziura, J., & Rabinowitz, P. M. (2015). Reported health conditions in animals residing near natural gas wells in southwestern Pennsylvania, *Journal of Environmental Science and Health, Part A: Toxic/Hazardous Substances and Environmental Engineering*, 50(5), 473-481, doi: 10.1080/10934529.2015.992666

⁶⁵⁴ Rabinowitz, P. M., Slizovskiy, I. B., Lamers, V., Trufan, S. J., Holford, T. R., Dziura, J. D., ... Stowe, M. H. (2015). Proximity to natural gas wells and reported health status: results of a household survey in Washington County, Pennsylvania. *Environmental Health Perspectives*, 123, 21-26. doi: 10.1289/ehp.1307732. See also footnote 29.

Health (NYS DOH) identified environmental problems associated with fracking that could contribute to adverse public health impacts. Among them: air pollution (particulate matter, ozone, diesel exhaust, and VOCs) that could affect respiratory health; drinking water contamination from underground migration of methane and/or fracking chemicals associated with faulty well construction or seismic activity; drinking water contamination from inadequate water treatment of fracking waste or from surface spills of fracking chemicals or wastewater; earthquakes and the creation of fissures; increased vehicle traffic; increased noise; increased demand for housing and medical care; and public health problems related to climate change impacts from methane and other greenhouse gas emissions into the atmosphere. The NYS DOH Public Health Review also discussed findings from surveys of health symptoms among residents living near high volume hydraulic fracturing activities. These included skin rash, nausea or vomiting, abdominal pain, breathing difficulties, cough, nosebleed, anxiety, stress, headache, dizziness, eye irritation, and throat irritation in populations living near drilling and fracking operations. The NYS DOH Public Health Review noted that ongoing studies by both government agencies and several academic institutions were exploring the public health risks and impacts of fracking but that many of these studies were years from completion. The review concludes:

... significant gaps exist in the knowledge of potential public health impacts from [high volume hydraulic fracturing].... The existing science investigating associations between [high volume hydraulic fracturing] activities and observable adverse health outcomes is very sparse and the studies that have been published have significant scientific limitations. Nevertheless, studies are suggestive of potential public health risks related to [high volume hydraulic fracturing] activity that warrant further careful evaluation.

In an accompanying letter to the New York State Department of Environmental Conservation, Health Commissioner Howard Zucker, MD, concluded,

... the overall weight of the evidence from the cumulative body of information contained in this Public Health Review demonstrates that there are significant uncertainties about the kinds of adverse health outcomes that may be associated with [high volume hydraulic fracturing], the likelihood of the occurrence of adverse health outcomes and the effectiveness of some of the mitigation measures in reducing or preventing environmental impacts which could adversely affect public health. Until the science provides sufficient information to determine the level of risk to public health from [fracking] to all New Yorkers and whether the risks can be adequately managed, DOH recommends that high volume hydraulic fracturing should not proceed in NYS.⁶⁵⁵

- October 13, 2014 – According to the North Dakota Health Department, the number of HIV and AIDS cases in North Dakota more than doubled between 2012 and 2014, and

⁶⁵⁵ New York State Department of Health. (2014, December 17). *A public health review of high volume hydraulic fracturing for shale gas development*. Retrieved from http://www.health.ny.gov/press/reports/docs/high_volume_hydraulic_fracturing.pdf

cases were shifting to the state’s western oil fields, where 35-40 percent of all new cases occurred. Previously, only 10 percent of cases were in that region.⁶⁵⁶ This trend followed on the heels of an upsurge in sexually transmitted chlamydia cases in the same region. The North Dakota state director of disease control, Kirby Kruger, attributed the uptick in HIV cases to the drilling and fracking industry and attempted to spread HIV prevention messages at the “man camps” that house young male workers in the oil industry.⁶⁵⁷ Human trafficking for purposes of prostitution accompanied the fracking boom, but there was a shortage of medical professionals to address this public health crisis, according to Kruger, who noted that it was difficult to hire nurses and medical staff who could live in the area on a public health wage.

- October 2, 2014 – According to researchers from the University of Pennsylvania’s Center of Excellence in Environmental Toxicology, an increasing number of gas wells in Pennsylvania is significantly correlated with inpatient rates of hospitalization. The research team collected data from seven different insurance providers for three counties; the study’s publication is forthcoming.⁶⁵⁸
- September 11, 2014 – In Texas, commercial vehicle accidents have increased more than 50 percent since 2009 when the state’s ongoing drilling and fracking boom began, according to an investigation by the *Houston Chronicle* and Houston Public Media News 88.7. “For six decades, highway deaths have dropped steadily all across the United States... But in Texas all motor vehicle fatalities – and accidents involving commercial trucks – have turned back upward since the state’s oil drilling and fracking boom began in 2008.” This rising motor vehicle death toll is especially felt in formerly rural counties in the Eagle Ford and Permian Basin, now places of heavy drilling and fracking. A new Department of Public Safety “Road Check” program finds annually, “27 to 30 percent of Texas’ commercial trucks shouldn’t be operating at all due to potentially life-threatening safety problems like defective brakes, bald tires, inoperable safety lights and unqualified, unfit or intoxicated drivers.”^{659, 660}
- August 3, 2014 – Hospitals in the Bakken Shale region reported a sharp rise in ambulance calls and emergency room visits after 2006. “Mercy Medical Center in Williston and the Tioga Medical Center in neighboring Williams County saw their ambulance runs increase by more than 200 percent. Tioga’s hospital saw a staggering leap in trauma patients by 1,125 percent. Mercy had a 373 percent increase.” Drugs (including overdoses of

⁶⁵⁶ Associated Press. (2014, October 13). North Dakota HIV/AIDs rate rises with population growth. *Billings Gazette*. Retrieved from http://billingsgazette.com/news/state-and-regional/montana/north-dakota-hiv-aids-rate-rises-with-population-growth/article_a939fed6-f737-5cfb-957f-ab800673f4d7.html

⁶⁵⁷ Heitz, D. (2014, September 30). Oil boom helps fuel surge in HIV in North Dakota. *HealthlineNews*. Retrieved from <http://www.healthline.com/health-news/oil-boom-helps-fuel-hiv-surge-north-dakota-093014#1>

⁶⁵⁸ Skrapits, E. (2014, October 2). Study: More gas wells in area leads to more hospitalizations. *The Citizen’s Voice*. Retrieved from <http://citizensvoice.com/news/study-more-gas-wells-in-area-leads-to-more-hospitalizations-1.1763826>

⁶⁵⁹ Olsen, L. (2014, 11 September). Fatal truck accidents have spiked during Texas’ ongoing fracking and drilling boom. *Houston Chronicle*. Retrieved from <http://www.houstonchronicle.com/news/article/Fracking-and-hydraulic-drilling-have-brought-a-5747432.php?cmpid=email-premium&cmpid=email-premium&t=1a9ca10d49c3f0c8a9#/0>

⁶⁶⁰ Schneider, A. (2014, 12 October). In Texas, traffic deaths climb amid fracking boom. *National Public Radio*. Retrieved from <http://www.npr.org/2014/10/02/352980756/in-texas-traffic-deaths-climb-amid-fracking-boom>

prescription drugs, methamphetamine, and heroin) explain many of the cases, with oilfield related injuries such as “fingers crushed or cut off, extremity injuries, burns and pressure burns” accounting for 50 percent of the cases in one of the region’s hospital emergency rooms.⁶⁶¹

- May 21, 2014 – Raising questions about possible links to worsening air pollution from the Uintah Basin’s 11,200 oil and gas wells, health professionals reported that infant deaths in Vernal, Utah, rose to six times the normal rate over the past three years. Physician Brian Moench said, “We know that pregnant women who breathe more air pollution have much higher rates of virtually every adverse pregnancy outcome that exists.... And we know that this particular town is the center of an oil and gas boom that’s been going on for the past five or six years and has uniquely high particulate matter and high ozone.”⁶⁶² Although it formerly had pristine air quality, Uintah County, Utah received a grade “F” for ozone in the American Lung Association’s 2013 State of the Air Report.⁶⁶³
- January 28, 2014 – Congenital heart defects, and possibly neural tube defects in newborns, were associated with the density and proximity of natural gas wells within a 10-mile radius of mothers’ residences in a study of almost 25,000 births from 1996 to 2009 in rural Colorado. The researchers note that natural gas development emits several chemicals known to increase risk of birth defects (teratogens).⁶⁶⁴
- January 4, 2014 – Preliminary data from researchers at Princeton University, Columbia University, and MIT showed elevated rates of low birthweight among infants born to mothers living near drilling and fracking operations during their pregnancies.⁶⁶⁵
- October 2013 – A preliminary study of the health impacts of oil and gas extraction on infant health in Colorado found that proximity to wells—linked with air pollutants from fracking operations—was associated with reductions in average birthweight and length of pregnancy as well as increased risk for low birthweight and premature birth.⁶⁶⁶ A study by the same author, currently under review, which analyzed births to Pennsylvania mothers residing close to a shale gas well in Pennsylvania from 2003 to 2010, also identified increased risk of adverse effects. This includes low birth weight, as well as a 26 percent increase in APGAR scores under 8. (APGAR—or American Pediatric Gross

⁶⁶¹ Bryan, K. J. (2014, August 3). Drugs, oilfield work, traffic pushing more people through doors of Watford City ER. *Bakken Today*. Retrieved from <http://www.bakkentoday.com/event/article/id/37101/>

⁶⁶² Schlanger, Z. (2014, May 21). In Utah boom town, a spike in infant deaths raises questions. *Newsweek*. Retrieved from <http://www.newsweek.com/2014/05/30/utah-boom-town-spike-infant-deaths-raises-questions-251605.html>

⁶⁶³ American Lung Association. (2013). American Lung Association state of the air 2013. Retrieved from <http://www.stateoftheair.org/2013/states/utah/uintah-49047.html>

⁶⁶⁴ McKenzie, L. M., Guo, R., Witter, R. Z., Savitz, D. A., Newman, L. S., & Adgate, J. L. (2014). Birth outcomes and maternal residential proximity to natural gas development in rural Colorado. *Environmental Health Perspectives*, 122, 412-417. doi: 10.1289/ehp.1306722

⁶⁶⁵ Whitehouse, M. (2014, January 4). Study shows fracking is bad for babies. *Bloomberg*. Retrieved from <http://www.bloombergvew.com/articles/2014-01-04/study-shows-fracking-is-bad-for-babies>

⁶⁶⁶ Hill, E. L. (2013, October). The impact of oil and gas extraction on infant health in Colorado. Retrieved from <http://www.elainehill.com/research>

Assessment Record—is a measure of newborn responsiveness. Scores of less than 8 predict an increase in the need for respiratory support.)⁶⁶⁷ (See entry above for August 13, 2018.)

- August 26, 2013 – Medical experts at a rural clinic in heavily-drilled Washington County, Pennsylvania reported case studies of 20 individuals with acute symptoms consistent with exposure to air contaminants known to be emitted from local fracking operations.^{668, 669}
- May 2, 2013 – A community-based participatory research study in Pennsylvania tested air and water quality and surveyed self-reported health symptoms of more than 100 residents living near drilling and fracking operations. The team detected a total of 19 VOCs in ambient air sampled outside of homes. The reported health symptoms closely matched the established effects of chemicals detected through air and water testing at those nearby sites. Moreover, those symptoms occurred at significantly higher rates in households closer to the gas facilities than those farther away.⁶⁷⁰ Indicative of the growing prevalence of such health impacts in the state, a poll showed that two-thirds of Pennsylvanians support a moratorium on fracking because of concern about negative health impacts.⁶⁷¹

⁶⁶⁷ Hill, E. L. (2013, December). Shale gas development and infant health: Evidence from Pennsylvania (under review). Retrieved from <http://www.elainehill.com/research>.

⁶⁶⁸ Abrams, L. (2013, August 26). Fracking's real health risk may be from air pollution. *Salon*. Retrieved from http://www.salon.com/2013/08/26/frackings_real_health_risk_may_be_from_air_pollution/

⁶⁶⁹ Dyrzka, L., Nolan, K., & Steingraber, S. (2013, August 27). *Statement on preliminary findings from the Southwest Pennsylvania Environmental Health Project study* [Press release]. Concerned Health Professionals of NY. Retrieved from <http://concernedhealthny.org/statement-on-preliminary-findings-from-the-southwest-pennsylvania-envir...>

⁶⁷⁰ Steinzor, N., Subra, W., & Sumi, L. (2013). Investigating links between shale gas development and health impacts through a community survey project in Pennsylvania. *New Solutions: A Journal of Environmental and Occupational Health Policy*, 23(1), 55-83. doi: 10.2190/NS.23.1.e

⁶⁷¹ Phillips, S. (2013, May 14). Poll shows support for a drilling moratorium in Pennsylvania. *StateImpact*. Retrieved from <http://stateimpact.npr.org/pennsylvania/2013/05/14/poll-shows-support-for-a-drilling-moratorium-in-pennsylvania/>

Noise pollution, light pollution, and stress

Drilling and fracking operations and ancillary infrastructure expose workers and nearby residents to continuous noise and light pollution that is sustained for periods lasting many months. Chronic exposure to light at night is linked to adverse health effects, including breast cancer. Sources of fracking-related noise pollution include blasting, drilling, flaring, generators, compressor stations, and truck traffic. Exposure to environmental noise pollution is linked to cardiovascular disease, cognitive impairment, and sleep disturbance. In Colorado, noise measured during construction and drilling of a large, multi-well pad in a residential area exceeded levels known to increase the risk of cardiovascular diseases and hypertension. In rural Canada, residents living near drilling and fracking operations experienced community upheaval and showed multiple signs of trauma. Oil and gas production noise may be disrupting wildlife health in protected areas. Workers and residents whose homes, schools, and workplaces are in close proximity to well sites are at risk from these exposures as well as from related stressors. Existing “setback distances” may not be adequate to reduce public health threats, especially for vulnerable populations. A UK Health Impact Assessment (HIA) identified stress and anxiety resulting from drilling-related noise—as well as from a sense of uncertainty about the future and eroded public trust—as key public health risks related to fracking operations.

- October 8, 2018 – Researchers collected noise measurements from residential areas, inside and outside homes, near two different gas well pads and a compressor station, north and south of Pittsburgh, Pennsylvania. Measurements from all of the outside areas had at least some decibel levels exceeding the recommended limits of the U.S. Environmental Protection Agency (EPA), and one indoor measurement near the compressor station exceeded the recommended level for noise measured inside homes. An accompanying survey documented that 96 percent of respondents were “worried about their overall health as a result of the noise.” Fifty-seven percent were bothered “a great deal” by the noise, and slightly more than half of respondents said that their sleep was disturbed “a great deal” by the noise.⁶⁷²
- October 4, 2018 – In the month following one or more earthquakes greater than magnitude 4 experienced in an Oklahoma county, motor vehicle crashes increased 4.6 percent. Anxiety-inducing life events increase the risk of motor vehicle crashes, and earthquakes are known to increase anxiety. University of California, Berkeley public health researchers used data on Oklahoma earthquakes between 2010 and 2016, known to have drastically increased in the state due to fracking wastewater injection, and county-level monthly vehicle crash counts. Authors noted “the high economic and social costs of such vehicle crashes,” which were \$2.9 billion in Oklahoma in 2010.⁶⁷³

⁶⁷² Richburg, C. M., & Slagley, J. (2018). Noise concerns of residents living in close proximity to hydraulic fracturing sites in Southwest Pennsylvania. *Public Health Nursing, 36*, 3-10. doi: 10.1111/phn.12540

⁶⁷³ Casey, J. A., Elser, H., Goldman-Mellor, S., & Catalano, R. (2018). Increased motor vehicle crashes following induced earthquakes in Oklahoma, USA. *Science of the Total Environment, 650*, 2974-2979. doi: 10.1016/j.scitotenv.2018.10.043

- May 30, 2018 – Anxiety-related Google searches increased 5.8 percent during months when there was more than one magnitude 4 or higher earthquake experienced in Oklahoma, from January 2010 to May 2017. Google searches for anxiety peaked three weeks after magnitude 4 or higher quakes, University of California, Berkeley public health researchers found. Oil and gas wastewater injection has dramatically increased seismicity in Oklahoma; in the study period, there were 8,908 earthquakes across the state of Oklahoma, an average of 218 earthquakes per month. Authors noted, “excessive anxiety... may disable individuals and has long-term implications for health and functioning,” and that “excessive symptoms of anxiety occur more readily in response to a recurrent and unpredictable stressor, such as the Oklahoma earthquakes included in our study.”⁶⁷⁴
- May 11, 2018 – Over 40 percent of daytime and 23.6 percent of nighttime audible noise measurements taken during construction and drilling of a large, multi-well pad in a residential area were found to exceed the level that research has demonstrated to increase the risk of health effects, such as cardiovascular diseases and hypertension. When the researchers used an additional measurement that captures low frequency noise levels, these results showed that 97.5 percent of daytime and 98.3 percent of nighttime measurements exceeded the level “recommended to minimize impacts such as nausea and headaches.” The measurements collected during this study were from four locations, over three months, in residential areas with oil and gas development in Colorado. Researchers concluded that the distances from the well pad at which some of their measurements were taken, highlight “that homes in closer proximity to operations will likely experience noise exposure at levels of concern even with the implementation of sound mitigation best management practices.”⁶⁷⁵
- December 29, 2017 – Every participant reported experiencing effects in one or more of five categories—psychological stress, social stress, environment, physical health, and traffic—in a study of how residents of two adjacent counties in Ohio are impacted by unconventional natural gas development. Most respondents reported impacts in three or more of the five categories. Types of psychological stress reported included general stress and uncertainty about the future; feeling frustrated and manipulated after interactions with the oil and gas industry; experiencing stress from noise or light pollution; and regional displacement. Researchers found that experiences of social stress extended to include divisions among family or community; fears of, or direct experiences of, environmental health harms; observing dying, unhealthy trees; and traffic-related effects. Nearly all residents interviewed had experienced dangerous encounters with oil and gas truck drivers and observed that damaged roads had become increasingly common.⁶⁷⁶

⁶⁷⁴ Casy, J. A., Goldman-Mellor, S., & Catalano, R. (2018). Association between Oklahoma earthquakes and anxiety-related Google search episodes. *Environmental Epidemiology*, 2, e016. doi: 10.1097/EE9.0000000000000016

⁶⁷⁵ Blair, B. D., Brindley, S., Dinkeloo, E., McKenzie, L. M., & Adgate, J. L. (2018). Residential noise from nearby oil and gas well construction and drilling. *Journal of Exposure Science & Environmental Epidemiology*, 28, 538–547. doi: 10.1038/s41370-018-0039-8

⁶⁷⁶ Fisher, M. P., Mayer, A., Vollet, K., Hill, E L., & Haynes, E. N. (2018). Psychosocial implications of unconventional natural gas development: Quality of life in Ohio's Guernsey and Noble Counties. *Journal of Environmental Psychology*, 55, 90-98. Advance online publication. doi: 10.1016/j.jenvp.2017.12.008

- July 28, 2017 – A Canadian case study of the social impacts of fracking in a conservative, upper middle class, rural region of southern Alberta found that residents experienced “complete upheaval in their beliefs, and for many, their experiences with contamination, and fears of future exposure, dominate their lives.”⁶⁷⁷ Participants described acute impacts to their own health, to family members’ health, to their livestock (including fertility problems), and to their land (included disrupted crop production and abrupt changes to the landscape). The study further reported that authorities failed to respond, “in a manner expected by the victims” to these problems. In addition, “corrosion of community” occurred at a time when victims needed community support the most. The author posited, following a consideration of the literature on toxic contamination and trauma, that her interviewees had experienced the three key indications of trauma: loss of agency, hyperarousal, and ontological insecurity linked to the negative effects on normal daily routines, a sense of order and continuity, and human dignity. The author noted that the contamination experienced by the interviewees reflected a “new normal of non-conventional fossil fuel industries.”
- May 5, 2017 – Oil and gas production was one of the main anthropogenic noise sources (though the proportion for which it was responsible was not determined) in a study that quantified the degree and extent of noise pollution in U.S. protected areas (PAs) and critical habitat for endangered species. Authors “compared noise pollution among land management and protection status and investigated sources responsible for generating noise across PAs.” The team of biologists and engineers found that human-caused noise doubled background sound in 63 percent of U.S. protected areas, and produced a tenfold or greater increase in 21 percent of protected areas. These levels are “known to interfere with human visitor experience and disrupt wildlife behavior, fitness, and community composition.” Researchers also found a 10-fold increase in sound levels in 14 percent of critical habitats of endangered species.⁶⁷⁸
- April 3, 2017 – A University of Maryland team conducted a pilot study of noise pollution at eight homes located less than a half mile (750 meters) from natural gas compressor stations in West Virginia and compared decibel levels to those collected from homes located further away. They found that daytime and nighttime noise levels were higher at properties located closer to a compressor, as measured both inside and outside the homes. Five of six homes that were monitored for a full 24-hour period had combined day-night indoor average noise levels that exceed 60 decibels (dBA), which exceeds both EPA’s recommended limits for chronic noise exposure as well those recommended by the World Health Organization. To date, no federal noise standards exist for oil and gas operations. Noting that noise exposure has been associated in previous studies with sleep disruption, poor academic performance, and hypertension, the authors conclude, “Findings indicate that living near natural gas compressor stations could potentially result

⁶⁷⁷ Davidson, D. J. (2018) Evaluating the effects of living with contamination from the lens of trauma: A case study of fracking development in Alberta, Canada, *Environmental Sociology*, 4(2), 196-209. Advance online publication. doi: 10.1080/23251042.2017.1349638

⁶⁷⁸ Buxton, R. T., McKenna, M. F., Mennitt, D., Fristrup, K., Crooks, K., Angeloni, L., & Wittemyer, G. (2017). Noise pollution is pervasive in U.S. protected areas. *Science*, 356 (6337), 531-533. doi: 10.1126/science.aah4783

in high environmental noise exposures. Larger studies are needed to confirm these findings and evaluate potential health impacts and protections measures.”⁶⁷⁹

- December 9, 2016 – A review analyzing the relevant scientific literature on the potential public health impacts of ambient noise related to unconventional oil and gas development found that “oil and gas activities produce noise at levels that may increase the risk of adverse health outcomes, including annoyance, sleep disturbance, and cardiovascular disease.” The team of environmental and occupational health scientists collected available measurements of noise levels at oil and gas operations and analyzed the data with established noise standards. Authors stated that many noise sources from fracking operations are similar to those of conventional oil and gas development, but that high-volume hydraulic fracturing activities present additional noise risks. These arise from conditions including four to five times the length of time needed to drill the well, and the much greater volume of water and higher pressures needed, compared to a traditional vertical well. They described the complexity of noise associated with oil and gas operations, including both intermittent and continuous noise, varying in intensities. The review included focus on vulnerable populations, including children, the elderly, and the chronically ill. Authors noted that existing “setback distances” – already often the result of political compromise and not evidence-based – may be insufficient to reduce public health threats, and that maximum allowable noise levels should be lower for schools and hospitals.⁶⁸⁰
- July 9, 2015 – As part of its assessment of potential health impacts, the California Council of Science and Technology looked at the impacts of noise and light pollution from oil and gas operations in California. The researchers noted that a number of activities associated with drilling and fracking generated noise at levels considered dangerous to public health. Noise is a biological stressor that can aggravate or contribute to the development of hypertension and heart problems. In California, noise from well stimulation was associated with both sleep disturbance and cardiovascular disease in a dose-response relationship. Exposure to artificial light at night has been linked to breast cancer in women, although almost no research has been conducted on the public health implications of light pollution from oil and gas extraction specifically.⁶⁸¹
- December 17, 2014 – The New York State Department of Health (NYS DOH) identified community impacts related to noise as a potential contributor to a variety of negative health impacts from drilling and fracking operations but noted that considerable scientific uncertainty remains on the issue of noise exposure per se as a risk factor. Noise, air

⁶⁷⁹ Boyle, M. D., Soneja, S., Quirós-Alcalá, L., Dalemarre, L., Sapkota, A. R., Sangaramoorthy, T. . . . Sapkota, A. (2017). A pilot study to assess residential noise exposure near natural gas compressor stations. *PLoS ONE*, *12*(4), e0174310. doi: 10.1371/journal.pone.0174310

⁶⁸⁰ Hays, J., McCawley, M., & Shonkoff, S. B. C. (2016). Public health implications of environmental noise associated with unconventional oil and gas development. *Science of the Total Environment*, *580*, 448-556. doi: 10.1016/j.scitotenv.2016.11.118

⁶⁸¹ Shonkoff, S. B. C., Jordan, P., Hays, J., Stringfellow, W. T., Wettstein, Z. S., Harrison, R., . . . McKone, T. E. (2015, July 9). Volume II, Chapter 6: Potential impacts of well stimulation on human health in California. In: *An Independent Scientific Assessment of Well Stimulation in California*. California Council on Science and Technology, Sacramento, CA. Retrieved from <http://ccst.us/publications/2015/vol-II-chapter-6.pdf>

pollution, traffic, vibration, odors, and nighttime lighting may all increase together as proximity to a drilling site decreases.⁶⁸²

- December 1, 2014 – Range Resources Corporation warned supervisors in Pennsylvania’s Donegal Township that a “big burn” natural gas flare will continue for as long as a week and “will produce a continuous noise of as much as 95 decibels at the well pad. Sustained decibel levels between 90 and 95 can result in permanent hearing loss, but workers will be equipped with ear protection.” Township supervisor Doug Teagarden expressed concern for residents, saying, “They told us the flare would be double the size of other well flares, and the noise will be like a siren on a firetruck.... There are houses within a couple of hundred yards of the well pad, and those folks are going to hear it.”⁶⁸³
- November 6, 2014 – Sakthi Karunanithi, Director of Public Health in Lancashire, UK, reported on a Health Impact Assessment (HIA) of the two proposed shale gas exploration sites in Lancashire. Karunanithi’s study determined that key risks to the health and well-being of the residents who live near the two proposed sites in Lancashire include stress and anxiety from uncertainty that could lead to “poor mental wellbeing,” and noise-related health effects due to continuous drilling. The HIA also noted a lack of public trust and confidence.^{684, 685}
- September 2014 – The Ohio Shale Country Listening Project, a collaborative effort to solicit, summarize, and share the perspectives and observations of those directly experiencing the shale gas build out in eastern Ohio, found that the more shale gas wells a community has, the less popular the oil and gas industry becomes. Many residents reported that they had not experienced the economic benefits promised by the oil and gas industry. They complained of increased rents and costs of gas and groceries, an influx of out-of-state workers, more vehicular accidents, road destruction from large trucks, and damaged landscape and cropland. Locals reported feeling less secure and more financially strapped.⁶⁸⁶

⁶⁸² New York State Department of Health. (2014, December 17). *A public health review of high volume hydraulic fracturing for shale gas development*. Retrieved from

http://www.health.ny.gov/press/reports/docs/high_volume_hydraulic_fracturing.pdf

⁶⁸³ Hopey, D. (2014, December 1). Gas flare to light up part of Washington County. *Pittsburgh Post Gazette*. Retrieved from <http://powersource.post-gazette.com/powersource/companies-powersource/2014/12/01/Gas-flare-to-light-up-part-of-Washington-County/stories/201411250224>

⁶⁸⁴ Karunanithi, S. (2014, November 6). Potential health impacts of the proposed shale gas exploration sites in Lancashire. *Reported at a meeting of the Lancashire County Council Cabinet, Thursday, 6th November, 2014 at 2.00 pm in Cabinet Room 'B' - County Hall, Preston, Item 9 on the agenda(1-68)*. Retrieved from <http://council.lancashire.gov.uk/documents/b11435/Potential%20Health%20Impacts%20of%20the%20Proposed%20Shale%20Gas%20Exploration%20Sites%20in%20Lancashire%2006th-Nov-2014%2014.pdf?T=9>

⁶⁸⁵ Dunkley, E. (2014, November 7). Fracking in Lancashire 'may affect mental health', report finds. *BBC NEWS Lancashire*. Retrieved from <http://www.bbc.com/news/uk-england-lancashire-29944212>

⁶⁸⁶ Ohio Organizing Collaborative (OOC)’s Communities United for Responsible Energy (CURE), with support from the Ohio Environmental Council (OEC), FracTracker.org, and Laborers Local 809 of Steubenville. (2014, September). Ohio Shale Country Listening Project. Retrieved from http://carrollconcernedcitizens.org/uploads/2014_Shale_Report_small.pdf

- June 20, 2014 – In its discussion of “Oil and Gas Drilling/Development Impacts,” the U.S. Office of Indian Energy and Economic Development detailed noise pollution from bulldozers, drill rigs, diesel engines, vehicular traffic, blasting, and flaring of gas. “If noise-producing activities occur near a residential area, noise levels from blasting, drilling, and other activities could exceed the U.S. Environmental Protection Agency (EPA) guidelines. The movement of heavy vehicles and drilling could result in frequent-to-continuous noise.... Drilling noise would occur continuously for 24 hours per day for one to two months or more depending on the depth of the formation.”⁶⁸⁷ Exposure to chronic noise can be deadly. The World Health Organization has documented the connection between environmental noise and health effects, including cardiovascular disease, cognitive impairment, sleep disturbance, and tinnitus. At least one million “healthy life years” are lost every year from traffic-related noise in the western part of Europe.⁶⁸⁸
- February 24, 2014 – In a review of the health effects from unconventional gas extraction published in the journal *Environmental Science & Technology*, leading researchers noted, “Noise exposure is a significant hazard due to the presence of multiple sources, including heavy equipment, compressors, and diesel powered generators. Loud continuous noise has health effects in working populations. It is likely that exposure to noise is substantial for many workers, and this is potentially important for health because drilling and servicing operations are exempt from some sections of the Occupational Safety and Health Administration noise standard.” They noted that research should investigate stressors such as noise and light in the context of drilling and fracking operations in order to understand the overall effect of chemical and physical stressors together.⁶⁸⁹
- May 30, 2014 – The *Denver Post* reported that in order to help meet Colorado’s noise limits for fracking operations in suburban neighborhoods (and partially block the glare of floodlights), Encana Oil and Gas erected 4-inch-thick polyvinyl walls up to 32 feet high and 800 feet long. Residents said that the plastic walls do not completely solve the problem.⁶⁹⁰
- October 25, 2013 – An analysis of well location and census data by the *Wall Street Journal* revealed that at least 15.3 million Americans now live within a mile of a well that has been drilled since 2000. According to this investigation, the fracking boom has ushered in “unprecedented industrialization” of communities across wide swaths of the

⁶⁸⁷ Oil and Gas Drilling/Development Impacts. (n.d.). *Oil and gas drilling/development impacts*. Retrieved from <http://teeic.indianaffairs.gov/er/oilgas/impact/drilldev/index.htm>

⁶⁸⁸ Rodier, G. (2011, June 1). Burden of disease from environmental noise - Quantification of healthy life years lost in Europe. *WHO*. Retrieved from http://www.who.int/quantifying_ehimpacts/publications/e94888/en/

⁶⁸⁹ Adgate, J. L., Goldstein, B. D., & McKenzie, L. M. (2014). Potential public health hazards, exposures and health effects from unconventional natural gas development. *Environmental Science & Technology* 48(15), 8307-20. doi: 10.1021/es404621d

⁶⁹⁰ Finley, B. (2014, May 29). Oil and gas industry building giant walls to try to ease impact. *The Denver Post*. Retrieved from http://www.denverpost.com/ci_25859469/oil-and-gas-industry-building-giant-walls-try

nation and, with it, “24/7” industrial noise, stadium lighting, earth-moving equipment, and truck traffic.⁶⁹¹

- April 16, 2013 – In a presentation on oil field light pollution for a conference on “Sustainable Environment and Energy: Searching for Synergies,” Roland Dechesne of the Royal Astronomical Society of Canada described problems of “light trespass,” glare, and poorly-aimed fixtures in oil fields in Alberta. He described resulting “mass waterfowl mortality” linked to artificial illumination and other biochemical impacts of light pollution on wildlife, as well as the possibility of these effects on humans, including circadian disruption, melatonin suppression, and possible resulting hormonally-linked diseases.⁶⁹² Known to have ecological impacts, outdoor light pollution from drilling and fracking operations may also be linked to artificial light-associated health effects documented in humans, including breast cancer.⁶⁹³
- April 2013 – Led by the University of Pittsburgh Graduate School of Public Health, a study of community members living in proximity to Marcellus Shale drilling in Pennsylvania found adverse impacts to mental health, with stress the most frequently reported symptom. At least half of all respondents in each set of interviews reported these specific stressors, including: being taken advantage of; health concerns; concerns/complaints ignored; corruption; denied information or provided with false information. Many also reported the desire to move or leave community, estrangement from community, and financial damages. Researchers noted that stress can result in direct health impacts.⁶⁹⁴ Notably, mounting evidence indicates that chronic stress magnifies individuals’ susceptibility to effects of pollution; for children, this interactive effect can begin during prenatal life.⁶⁹⁵
- September 7, 2011 – A study by researchers at Boise State University and Colorado State University at Fort Collins modeled the potential impacts of compressor station noise from oil and gas operations on Mesa Verde National Park in Colorado. The study found the sound of 64 compressors outside Mesa Verde elevated the sound level within the park by 34.8 decibels on average, and by 56.8 decibels on the side of the park located closest to

⁶⁹¹ Gold, R., & McGinty, T. (2014, Oct. 25). Energy boom puts wells in America’s backyards. *The Wall Street Journal*. Retrieved from <http://online.wsj.com/news/articles/SB10001424052702303672404579149432365326304>

⁶⁹² Dechesne, R. (2013). Limiting oil field light pollution for safety and the environment. Sustainable Environment and Energy CPANS 2013 Conference. Retrieved from

<http://www.cpans.org/assets/Uploads/Presentations/NewFolder/Session-46Roland-Dechesne.pdf>

⁶⁹³ Chepesiuk, R. (2009). Missing the dark: Health effects of light pollution. *Environmental Health Perspectives*, 117(1), A20–A27.

⁶⁹⁴ Ferrar, K. J., Kriesky, J., Christen, C. L., Marshall, L. P., Malone, S. L., Sharma, R. K., . . . Goldstein, B.D. (2013). Assessment and longitudinal analysis of health impacts and stressors perceived to result from unconventional shale gas development in the Marcellus Shale region. *International Journal of Occupational & Environmental Health*, 19(2), 104-112. doi: 10.1179/2049396713Y.0000000024

⁶⁹⁵ Cooney, C.M. (2011). Stress–pollution interactions: An emerging issue in children’s health research. *Environmental Health Perspectives*, 119, a430-a435. <http://dx.doi.org/10.1289/ehp.119-a430>

the compressors. According to the EPA, 55 decibels is the highest “safe noise level” to avoid damage to the human ear.⁶⁹⁶

⁶⁹⁶ Barber, J. R., Burdett, C.L., Reed, S. E., Warner, K.A., Formichella, C., Crooks, K.R., . . . Fristrup, K. M. (2011). Anthropogenic noise exposure in protected natural areas: Estimating the scale of ecological consequences. *Landscape Ecology*, 26(9), 1281-1295. doi: 10.1007/s10980-011-9646-7

Earthquakes and seismic activity

Definitive evidence from Ohio, Arkansas, Texas, Oklahoma, Kansas, and Colorado links fracking wastewater disposal wells to earthquakes of magnitudes as high as 5.8, in addition to swarms of minor earthquakes. Both the U.S. Geological Survey (USGS) and state geological agencies such as the Oklahoma Geological Survey now acknowledge that earthquakes can be caused by wastewater injection into disposal wells. Many recent studies focus on the mechanical ability of pressurized fluids to trigger seismic activity by unclamping stressed faults. In some cases, and especially in Canada, Oklahoma, Ohio, and China, the fracking process itself has been linked to earthquakes. Emerging evidence suggests that risk of earthquakes can continue to rise for years after waste injection and cannot be prevented through “proper” fracking protocols or by solely limiting the rate or volume of injected fluid. Injecting fracking waste into shallower zones is one method for reducing earthquake risk, but shallow injection raises the risk for groundwater contamination. The question of what to do with fracking wastewater remains a problem with no viable, safe solution.

- March 27, 2019 – The USGS deployed additional seismometers in the area around south Alabama and the Florida Panhandle following the detection of five earthquakes in the course of a week. The earthquakes, ranging in magnitude from 2.1 to 3.7, occurred in an area flagged as likely experiencing more seismic activity over the past decade due to oil and gas operations in the area.⁶⁹⁷ In 1997, a series of earthquakes, including the second largest in Alabama’s history (at magnitude 4.9), occurred in the same region and was tentatively linked to oil and gas drilling and two associated injection wells nearby.⁶⁹⁸
- March 8, 2019 – Over a two-day period in February 2019, three earthquakes struck a farming community in an area of China’s Sichuan Province that is experiencing a fracking boom. Two people were killed, 13 injured, 20,000 homes destroyed, and 1,600 people displaced. In response to citizen protests, fracking operations were suspended.⁶⁹⁹
- March 1, 2019 – A USGS-led team monitored leakage and fluid pressure over time in a permeable bedrock formation used for disposal of fracking waste in Osage County, Oklahoma. By inserting specially designed instruments into an unused disposal well within this formation, the team demonstrated an overall trend of increasing fluid pressure. “The only conceivable source of this increase is due to the injection of wastewater.” The results also showed evidence that fracking waste is leaking out of the reservoir where it is being injected “at a significant rate.” The direction of the leakage appears mostly downward into the basement rock below. The authors note that disposal of fracking waste

⁶⁹⁷ Pillion, D. (2019, March 27). Did fracking cause south Alabama earthquakes? Federal researchers investigating. *Al.com*. Retrieved from <https://www.al.com/news/mobile/2019/03/did-fracking-cause-south-alabama-earthquakes-federal-researchers-investigating.html>

⁶⁹⁸ Gomberg, J., & Wolf, L. (1999). Possible cause for an improbable earthquake: The 1997 M_w 4.9 southern Alabama earthquake and hydrocarbon recovery. *Geology*, 27(4), 367-370. doi: 10.1130/0091-7613(1999)027<0367:<PCFAIE>2.3CO;2

⁶⁹⁹ Myers, S. L. (2019, March 8). China experiences a fracking boom, and all the problems that go with it. *New York Times*. Retrieved from <https://www.nytimes.com/2019/03/08/world/asia/china-shale-gas-fracking.html?smid=nytcore-ios-share>

is the leading cause of pressure changes on faults in Oklahoma and that fluid pressure changes are, in turn, the leading cause of earthquakes in Oklahoma.⁷⁰⁰

- December 12, 2018 – For six continuous years, hydraulic fracturing and related activities have triggered multiple earthquakes of varying magnitudes in northwestern Alberta and northeastern British Columbia, with the operations of one company linked to tremors that have jolted Fort St. John from 2012 to 2018.⁷⁰¹ Between September 2013 and January 2015 alone, researchers in western Alberta, Canada detected than 900 seismic events, ranging in magnitude from 1 to 4. Real-time recordings of seismic activity were generally consistent with published empirical and point-source simulation models. Approximately 80 percent of the events in the compiled database occurred “in distinct clusters in time and space that are characteristic of induced events.”⁷⁰² These induced earthquakes pose hazards to roads, pipelines, dams, groundwater, and public safety. Canadian scientists question whether any regulatory system could effectively forecast, control, or prevent them. In some cases, cessation of injection activities following large, potentially damaging earthquakes appears to a sufficient response. However, in other cases, quakes occur months after injection activities, falling outside the windows of immediate intervention that most “traffic light systems” are put in place to address.⁷⁰³ Further, companies are allowed to continue their activities despite predictions that considerable seismic activity may result, including earthquakes of much greater magnitude than predicted.⁷⁰⁴
- November 28, 2018 – Noting that fracking is a microseismic event, a research team investigated whether the activity of hydraulic fracturing itself, and not just the disposal of fracking waste, can trigger earthquakes and might be contributing to the dramatic increases in frequency of seismic events across the central and eastern United States. The team focused on Oklahoma where they identified roughly 700 fracking-induced earthquakes, including 12 with magnitude between 3 and 3.5. Previous reports had described only two fracking-induced earthquakes in Oklahoma. Results also confirmed that, in Oklahoma, proximity of an injection site to a critically stressed fault is a better predictor of induced seismicity than a more commonly accepted general approach based on proximity to the Precambrian basement layer. These results demonstrate that public research provides far greater detail and accuracy than data and notifications voluntarily released by drilling operators.⁷⁰⁵

⁷⁰⁰ Barbour, A. J., Xue, L., Roeloffs, E., & Rubinstein, J. L. (2019). Leakage and increasing fluid pressure detected in Oklahoma’s wastewater disposal reservoir. *JGR Solid Earth*, 124(3), 2896-2919. doi: 10.1029/2019JB017327

⁷⁰¹ Nikiforuk, A. (2018, December 12). Company linked to tremors that jolted Fort St. John triggered previous quakes. *The Tyee*. Retrieved from <https://thetyee.ca/News/2018/12/12/Fort-St-John-Tremors/>

⁷⁰² Novakovic, M., & Atkinson, G. M. (2015). Preliminary evaluation of ground motions from earthquakes in Alberta. *Seismological Research Letters*, 86(4). doi: 10.1785/0220150059

⁷⁰³ Nikiforuk, A. (2018, December 4). Fracking linked to quake that jolted Fort St. John. *The Tyee*. Retrieved from <https://thetyee.ca/News/2018/12/04/Fracking-Linked-Quake-Jolted-Fort-St-John/>

⁷⁰⁴ Little, S. (2018, December 22). Fort St. John earthquakes were caused by fracking: BC Oil and Gas Commission. *Global News*. Retrieved from <https://globalnews.ca/news/4789210/fort-st-john-frackqing-earthquakes/>

⁷⁰⁵ Skoumal, R. J., Ries, R., Brudzinski, M. R., Barbour, A. J., & Currie, B. S. (2018). Earthquakes induced by hydraulic fracturing are pervasive in Oklahoma. *Journal of Geophysical Research: Solid Earth*, 123, 10,918-10,935. doi: 10.1029/2018JB016790

- November 11, 2018 – In Lancashire, England, fracking has triggered at least 37 minor earthquakes. Regulations require suspension of fracking activities when seismicity exceeds magnitude 0.5. Energy company Cuadrilla, which had previously supported these limits, lobbied the government to relax the regulations in order to allow fracking to continue. These calls have been rejected by the energy minister.⁷⁰⁶
- October 31, 2018 – A holistic analysis of fracking waste disposal practices and seismicity compared intensely drilled regions across the United States, including the Bakken, Eagle Ford, and Permian shale basins, as well as basins in Oklahoma. Results showed consistent links between increased seismicity and increased depth of wastewater injection, increased rate of injection, and increased regional injection volumes. Shallower disposal wells help lower the risk of earthquakes. However, they raise the risk of groundwater contamination as increased pressures can push fluids through “faults or fractures or through abandoned oil wells that have not been properly plugged.” The researchers also noted that deep waste disposal carries the risk of introducing toxic fluids into karstified areas where there is “limited geologic characterization of the disposal zone.” These deep, cave-like zones may transmit fluids in an unknown, unpredictable fashion.⁷⁰⁷
- August 31, 2018 – To delineate possible mechanisms for the induction of earthquakes at unexpectedly large distances from injection wells, researchers looked at data in the public domain from around the world. They found two patterns. One type of seismicity, manifesting a “direct pressure effect,” clusters near wells and tends to be shallow, of modest magnitude, and to decay abruptly. The second type of seismicity, potentially triggered by elastic stresses, tends to occur in deeper layers, decay slowly, and exhibit larger spatial footprints and magnitudes. Both shallow and deep formations present unique risks, and these should be included in mitigation strategies.⁷⁰⁸ With low to moderate-sized human-made earthquakes putting 1 in 50 people in the United States at risk according to a recent USGS analysis, injection practices for oil and gas wastewater are “creating a ripple effect far beyond ... drilling locations.”⁷⁰⁹
- April 27, 2018 – The use of fracking to enhance geothermal energy recovery activated two faults in a previously unknown fault system and triggered a magnitude 5.5 earthquake near Pohang, South Korea. Using primarily publicly available data, the researchers characterized the fault dimensions, faulting mechanism, and depth of

⁷⁰⁶ Vaughan, A. (2018, November 11). Fracking firm boss says it didn't expect to cause such serious quakes. *The Guardian*. Retrieved from <https://www.theguardian.com/environment/2018/nov/11/fracking-firm-boss-says-it-didnt-expect-to-cause-such-serious-quakes-lancashire?fbclid=IwAR2BEOJ3ySPm-7WiiqVilQQyyjdzqAxOHbZxYGEH4s9RFbObbUfPwKGW9dM>

⁷⁰⁷ Scanlon, B. R., Weingarten, M. B., Murray, K. E., & Reedy, R. C. (2018). Managing basin-scale fluid budgets to reduce injection-induced seismicity from the recent U.S. shale oil revolution. *Seismological Research Letters*, 90(1), 171-182. doi: 10.1785/0220180223

⁷⁰⁸ Goebel, T. H. W., & Brodsky, E. E. (2018). The spatial footprint of injection wells in a global compilation of induced earthquake sequences. *Science*, 361(6405), 899–904. doi: 10.1126/science.aat5449

⁷⁰⁹ Guarino, B. (2018, August 30). How energy companies set off earthquakes miles away from their waste dumps. *Washington Post*. Retrieved from https://www.washingtonpost.com/science/2018/08/30/how-energies-companies-set-off-earthquakes-miles-away-their-waste-dumps/?utm_term=.ee67ec5d693a

earthquake activity, which correlated with surface deformation at the time of the earthquake activity. The earthquake's main shock caused extensive structural damage to buildings in and around Pohang and injured 70 people.⁷¹⁰

- March 16, 2018 – Utilizing satellite radar imagery, researchers observed and analyzed ground deformation, earthquake activity, and subsidence (depressions and sinkholes) that appear to be the result of “decades of oil activity and its effects on rocks below the earth's surface.”^{711, 712} Noting that West Texas has been “punctured like a pincushion with oil wells and injection wells since the 1940s,” the team documented an “alarming rate” of heaving and sinking across a 4,000-square-mile area.⁷¹³ The researchers documented visible surface-level and subsurface changes from fracking, fracking waste injection, carbon dioxide injection that is used to aid in oil and gas extraction, and abandoned and uncapped wells. Some data may help sort out why hazards manifest in one site rather than another. Satellite assessments of deformation can provide crucial safety information to protect roadways, homes, businesses, industrial facilities, pipelines, and people from “potential larger catastrophic events.”
- February 27, 2018 – Since December 2016 in Oklahoma, 74 earthquakes of at least 2.5 magnitude have been linked directly to fracking. As a result, state regulators tightened mitigation protocols and required operators to use seismic arrays to detect underground movement and pause their work when earthquakes exceed magnitude 2.5.⁷¹⁴ These changes make Oklahoma's new regulations tougher than Canada's, where “the industry holds the record for causing magnitude 4-plus earthquakes by high volume fracking.”⁷¹⁵ Described by industry sources as “a cautious move forward, limiting though not hamstringing [the] oil industry,” the new regulations will be evaluated in the field for their effectiveness in reducing the frequency of earthquakes large enough to be felt at the surface.⁷¹⁶

⁷¹⁰ Grigoli, F., Cesca, S., Rinaldi, A. P., Manconi, A., López-Comino, J. A., Clinton, J. F., . . . S. Wiemer, S. (2018). The November 2017 Mw 5.5 Pohang earthquake: A possible case of induced seismicity in South Korea. *Science*, 360(6392), 1003-1006. doi: 10.1126/science.aat2010

⁷¹¹ Kim, J.-W., & Lu, Z. (2018). Association between localized geohazards in West Texas and human activities, recognized by Sentinel-1A/B satellite radar imagery. *Scientific Reports*, 8, 4727. doi: 10.1038/s41598-018-23143-6

⁷¹² Greene, S. (2018, March 22). Large portions of West Texas sinking at alarming rate, new report finds. *Texas Tribune*. Retrieved from <https://www.texastribune.org/2018/03/22/report-says-large-portions-west-texas-counties-are-sinking-alarming-ra/>

⁷¹³ Allen, M. (2018, March 20). Radar images show large swath of West Texas oil patch is heaving and sinking at alarming rates. *SMU Research News*. Retrieved from <https://blog.smu.edu/research/2018/03/20/radar-images-show-large-swath-of-texas-oil-patch-is-heaving-and-sinking-at-alarming-rates/>

⁷¹⁴ Oklahoma Corporation Commission, & Oklahoma Geological Survey. (2018, February 27). Moving forward: New protocol to further address seismicity in state's largest oil and gas play. Retrieved from <https://earthquakes.ok.gov/wp-content/uploads/2018/03/02-27-18-PROTOCOL.pdf>

⁷¹⁵ Nikiforuk, A. (2018, March 9). Spooked by quakes, Oklahoma toughens fracking rules. *The Tye*. Retrieved from <https://thetye.ca/News/2018/03/09/Oklahoma-Toughens-Fracking-Rules/>

⁷¹⁶ Oil Industry News. (2018, March 2). Oklahoma toughens oil fracking rules as shale earthquakes climb. *oilandgaspeople.com*. Retrieved from <https://www.oilandgaspeople.com/news/16214/oklahoma-toughens-oil-fracing-rules-as-shale-earthquakes-climb/>

- February 20, 2018 – Researchers in Kansas used high-precision data from an extensive seismometer network to detail features of a surge of earthquakes that they concluded were induced by wastewater injection in southern Kansas. Some areas were free from earthquakes, despite injection activities, suggesting that unknown local geological conditions play a role in determining seismic activity. Lack of seismic activity in these areas is “either due to a lack of fluid pathways to the basement [deep geological layer] or due to the absence of faults that are close to failing.” Regional influences led to more prolonged seismicity and were observed from wastewater injection wells located 10 or more kilometers away.⁷¹⁷
- February 15, 2018 – In Kansas, swarms of earthquakes near oil wastewater disposal wells began in 2013. By 2017, the prodigious volumes of injected fluid created sufficient pressure to trigger earthquakes more than 50 miles away and form a “triggering front” that advanced at an average rate of nearly 10 miles per year along a permeable fault zone.⁷¹⁸ A mapping project based on gravity loads, magnetic fields, and seismic activity dating to 1979 revealed a previously unidentified subsurface fault running from central Nebraska 200 miles southeast to Kansas.⁷¹⁹
- February 5, 2018 – Focusing their investigation on areas in Ohio that are isolated from fracking waste injection activities, researchers found that fracking itself induced earthquakes in two distinct manners. In some cases, earthquake activity occurred in shallow subsurface layers and was of short duration and small magnitude. In other, more troubling cases, earthquakes were more powerful and took place in very deep layers, far below the layers being fracked, even when fracking did not directly contact faults in the basement rock. At three of five sites, earthquake activity continued for over a month after fracking activities ceased. These results support a causal role for poroelastic stress, sometimes operating over long distances, in addition to more predictable pore fluid pressure changes, in the generation of earthquakes by fracking.^{720, 721}
- January 19, 2018 – Some of the largest earthquakes related to fracking have occurred near Fox Creek, Alberta, in Canada. Using publicly available data, researchers studied earthquakes induced both by fracking waste injection and by hydraulic fracturing itself. In both cases, the volume of fluid injected, rather than injection rate or injection pressure,

⁷¹⁷ Rubinstein, J. L., Ellsworth, W. L., & Dougherty, S. L. (2018). The 2013–2016 Induced Earthquakes in Harper and Sumner Counties, Southern Kansas. *Bulletin of the Seismological Society of America*, 108(2), 674-689. doi: 10.1785/0120170209

⁷¹⁸ Peterie, S. L., Miller, R. D., Intfen, J. W., & Gonzales, J. B. (2018). Earthquakes in Kansas induced by extremely far-field pressure diffusion. *Geophysical Research Letters*, 45, 1395-1401. doi: 10.1002/2017GL076334

⁷¹⁹ Dunker, C. (2018, April 21). Spate of Nebraska earthquakes might be linked to Kansas tremors, UNL student researcher says. *Lincoln Journal Star*. Retrieved from https://journalstar.com/news/local/education/spate-of-nebraska-earthquakes-might-be-linked-to-kansas-tremors/article_b81d0bdc-5b0e-5c98-a155-5f6499356b4d.amp.html?_twitter_impression=true

⁷²⁰ Kozłowska, M., Brudzinski, M. R., Friberg, P., Skoumal, R. J., Baxter, N. D., & Currie, B. S. (2018). Maturity of nearby faults influences seismic hazard from hydraulic fracturing. *PNAS*, 115(8), E1720-E1729. doi: 10.1073/pnas.1715284115

⁷²¹ Kowalski, K. M. (2018, February 7). Fracking in shale plays could trigger earthquakes in deeper faults: Study. *Energy News Network*. Retrieved from <https://energynews.us/2018/02/07/midwest/fracking-in-shale-plays-could-trigger-earthquakes-in-deeper-faults-study/>

was most strongly correlated with seismic activity. Geologic factors also played a role, with earthquakes more likely if fracking and disposal activities were conducted closer to faulting and areas of stress. Combining injected volume with geologic factors, researchers developed a model that can predict 96 percent of the seismic variability in the region, improving hazard estimations. Calculating a “seismogenic activation potential,” particularly if coupled with microseismic monitoring in real time to detect previously unknown faulting, may improve earthquake forecasting.⁷²²

- November 24, 2017 – A team of geologists confirmed conclusively that recent earthquakes in Texas’ Fort Worth Basin were induced by underground injection of fracking waste that caused deep, critically stressed faults to slip.⁷²³ The authors of this study employed a classical structural geology analysis that relied on high-resolution seismic reflection imaging, described in an interview with geophysical researcher Maria Magnani as “a little bit like an ultrasound.”⁷²⁴ Maps of the seismically active faults in the Fort Worth Basin show no evidence of previous motion over the past millions of years and instead have been “sleeping” for approximately the past 300 million years until “awakened” at the start of the 2008 earthquake swarm associated temporally with extensive wastewater injection activities.⁷²⁵
- October 21, 2017 – Extending the findings of two previous studies, an investigation of earthquakes in the Raton Basin along the border of New Mexico and Colorado identified wastewater injection wells as the cause of the quakes and identified a mechanism.⁷²⁶ All together, the location of the earthquakes, modeled pore pressures, and the direct correlation between cumulative volume of injected waste in nearby wells and the number of quakes show that seismicity in the Raton Basin is likely induced, and that elevated pore pressures deep underground are “well above earthquake-triggering thresholds.”⁷²⁷
- September 14, 2017 – An investigation by *Politico* found that the U.S. crude oil storage hub in Cushing, Oklahoma—the world’s largest store of oil—was not designed with

⁷²² Schultz, R., Atkinson, G., Eaton, D. W., Gu, Y. J., & Kao, H. (2018). Hydraulic fracturing volume is associated with induced earthquake productivity in the Duvernay play. *Science*, 359, 304-308. doi: 10.1126/science.aao0159

⁷²³ Magnani, M. B., Blanpied, M. L., DeShon, H. R., & Hornbach, M. J. (2017). Discriminating between natural versus induced seismicity from long-term deformation history of intraplate faults. *Science Advances*, 3(11), e1701593. doi: 10.1126/sciadv.1701593

⁷²⁴ Guarino, B. (2017, November 24). Oil and gas industry is causing Texas earthquakes, a ‘landmark’ study suggests. *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/science/wp/2017/11/24/fracking-and-other-human-activities-are-causing-texas-earthquakes-study-suggests/?tid=ss_tw&utm_term=.02bfff4181f1

⁷²⁵ Kuchment, A. (2017, November 24). Drilling reawakens sleeping faults in Texas, leads to earthquakes. *Scientific American*. Retrieved from https://www.scientificamerican.com/article/drilling-reawakens-sleeping-faults-in-texas-leads-to-earthquakes/?utm_source=newsletter&utm_medium=email&utm_campaign=weekly-review&utm_content=link&utm_term=2017-11-29_featured-this-week

⁷²⁶ Nakai, J. S., Weingarten, M., Sheehan, A. F., Bilek, S. L., & Ge, S. (2017). A possible causative mechanism of Raton Basin, New Mexico and Colorado earthquakes using recent seismicity patterns and pore pressure modeling. *Journal of Geophysical Research: Solid Earth*, 122. doi: 10.1002/2017JB014415

⁷²⁷ Scott, J. (2017, October 24). Raton Basin earthquakes linked to oil and gas fluid injections. *University of Colorado Boulder*. Retrieved from <https://www.colorado.edu/today/2017/10/24/raton-basin-earthquakes-linked-oil-and-gas-fluid-injections>

seismic considerations in mind, nor are there seismic regulations in place for its 250,000-barrel oil tanks, which are under the purview of the Department of Transportation's Pipeline and Hazardous Materials Safety Administration. Central Oklahoma, where Cushing is located, became seismically active about five years ago when "wastewater injection and other fracking-related activities changed the seismic face of Oklahoma in dramatic fashion."⁷²⁸ (See also entry below for November 8, 2016.)

- August 11, 2017 – Using multiple lines of evidence, researchers in China determined that a series of high-magnitude earthquakes between 2014 and 2017 in Sichuan Basin was triggered by fracking activities that re-activated pre-existing faults. "The present study shows that short-term injections (continuing over several months) for shale gas hydraulic fracturing are ... very likely to induce M_w 4–5 class earthquakes in sites with similar geological and tectonic conditions within the southern Sichuan Basin."⁷²⁹
- May 3, 2017 – Studying two patterns of fracking waste injection in Oklahoma, geologists observed a large, unexpected impact on seismic activity at sites where injection rates drastically changed in recent years, as compared with those whose injection volumes held steady. They demonstrated that, in addition to direct pore pressure effects, deformations due to fluid flows ("poroelastic effects") play an important role in generating earthquake activity. Elevated risks for earthquakes can persist years after fracking waste is injected underground. Their findings also showed that the "magnitude of the initial change in injection rate is particularly important, but the opposite effect occurs in the transition to zero injection" (i.e., shut-in or closing a well). This result implies that "in certain faulting regimes it is theoretically possible to mitigate damaging effects of rapid shut-in by carefully tapering injection rates."⁷³⁰ Geophysicist Andrew Barbour, lead author of the study, said that fluctuating injection rates likely have a "profound effect" on earthquake risk.⁷³¹ These findings suggest that the 2016 Pawnee earthquake, the strongest earthquake ever recorded in Oklahoma, may have been triggered by pulses of underground oil and gas activity years earlier.⁷³²
- April 27, 2017 – Recognizing that increased seismicity from both hydraulic fracturing and underground disposal of fracking wastewater poses a hazard to critical infrastructure, such as large dams, a Canadian geologist proposed strategies to keep the likelihood of

⁷²⁸ Ogrocki, S. (2017, September 24). How man-made earthquakes could cripple the U.S. economy. *Politico*. Retrieved from <http://www.politico.com/magazine/story/2017/09/14/earthquakes-oil-us-economy-fracking-215602>

⁷²⁹ Lei, X., Huang, D., Su, J., Jiang, G., Wang, X., Wang, H., . . . Fu, H. (2017). Fault reactivation and earthquakes with magnitudes of up to M_w 4.7 induced by shale-gas hydraulic fracturing in Sichuan Basin, China. *Scientific Reports*, 7, 7971. doi: 10.1038/s41598-017-08557-y

⁷³⁰ Barbour, A. J., Norbeck, J. H., & Rubinstein, J. L. (2017). The effects of varying injection rates in Osage County, Oklahoma, on the 2016 M_w 5.8 Pawnee earthquake. *Seismological Research Letters*, 88(4), 1040-1053. doi: 10.1785/0220170003

⁷³¹ Jones, C. (2017, May 7). USGS study 'strongly suggests' short-term variations in disposal volumes served as trigger for Pawnee earthquake. *Tulsa World*. Retrieved from http://www.tulsaworld.com/earthquakes/usgs-study-strongly-suggests-short-term-variations-in-disposal-volumes/article_97de08d5-9327-505d-8b51-adbc716d6c69.html

⁷³² Wertz, J. (2017, May 4). Study links pulse of oil-field wastewater to Oklahoma's strongest earthquake. *StateImpact Oklahoma*. Retrieved from <https://stateimpact.npr.org/oklahoma/2017/05/04/study-links-pulse-of-oil-field-wastewater-to-oklahomas-strongest-earthquake/>

high-failure consequences under one per ten thousand per year.⁷³³ The primary strategy is the creation of “no frack” exclusion zones with a 5-kilometer (3.1 mile) radius that would surround vulnerable, critical facilities. In a larger ring beyond the exclusion zone, to approximately 25 kilometers (15.5 miles), monitoring and response protocols would be used.⁷³⁴

- March 1, 2017 – Despite decreases of up to 40 percent in the volume of fracking wastewater injected underground in Oklahoma, researchers from the USGS Earthquake Hazard Program forecasted that seismic hazards would remain significantly elevated there throughout 2017, with the odds of damage from induced earthquakes within the next year “similar to that of natural earthquakes in high-hazard areas of California.” About three million people in Oklahoma and southern Kansas now live with continuing increased potential for damaging shaking from induced seismicity.”⁷³⁵ According to Mark Petersen, chief of the USGS National Seismic Hazard Mapping Project, the hazard risk remains “hundreds of times higher than before man-made activity began.”⁷³⁶
- February 17, 2017 – Pennsylvania’s Department of Environment Protection (PA DEP) announced that a series of small earthquakes in Lawrence County had been induced by fracturing of wells in the Utica Shale.⁷³⁷ PA DEP officials held a webinar to discuss the situation and formulate “procedures to reduce seismic risk going forward,” but no formal report or regulatory changes have yet been made public.⁷³⁸
- December 20, 2016 – In an attempt to reduced the risk of earthquakes caused directly by fracking, the Oklahoma Corporation Commission’s Oil and Gas Conservation Division introduced monitoring and response guidelines that include provisions requiring oil producers to “implement mitigation plans following an earthquake of magnitude 2.5 or more and to suspend operations following a quake of magnitude 3.5 or greater.”⁷³⁹
- November 17, 2016 – A study of fault activation found a connection between fracking and earthquake activity in a region of Alberta, Canada that had previously been

⁷³³ Atkinson, G. M. (2017). Strategies to prevent damage to critical infrastructure due to induced seismicity. *FACETS*, 2, 374–394. doi: 10.1139/facets-2017-0013

⁷³⁴ Nikiforuk, A. (2017, July 24). Earthquake expert proposes ‘no frack zone’ around critical infrastructure. *The Tyee*. Retrieved from <https://thetyee.ca/News/2017/07/24/Critical-Infrastructure-No-Frack-Zone/>

⁷³⁵ Petersen, M. D., Mueller, C. S., Moschetti, M. P., Hoover, S. M., Shumway, A. M., McNamara, D. E., . . . Rukstales, K.S., (2017). 2017 one-year seismic-hazard forecast for the central and eastern United States from induced and natural earthquakes. *Seismological Research Letters*, 88(3). doi: 10.1785/0220170005

⁷³⁶ Wilmoth, A. (2017, March 1). Oklahoma considered at ‘significant potential’ for damaging earthquakes. *News OK*. Retrieved from <http://newsok.com/article/5539785https://mail.google.com/mail/u/0/>

⁷³⁷ Legere, L. (2017, February 17). DEP links Lawrence County earthquakes to fracking. *Pittsburgh Post-Gazette*. Retrieved from <http://powersource.post-gazette.com/powersource/policy-powersource/2017/02/16/DEP-Pennsylvania-Lawrence-County-earthquakes-appear-linked-to-fracking-Hilcorp-Energy/stories/201702160176>

⁷³⁸ Pennsylvania Department of Environmental Protection. (2017, February 17). *Advisory – Department of Environmental Protection to hold webinar on 2016 Lawrence County seismic events*. Retrieved from <http://www.ahs.dep.pa.gov/NewsRoomPublic/articleviewer.aspx?id=21145&typeid=1>

⁷³⁹ Hampton, L. (2016, December 20). Oklahoma's new fracking guidelines aim to reduce quake risk. *Reuters*. Retrieved from <https://www.reuters.com/article/us-oklahoma-quake-rules/oklahomas-new-fracking-guidelines-aim-to-reduce-quake-risk-idUSKBN1492R6>

seismically quiescent. The researchers demonstrated that new earthquake activity in the Fox Creek area was tightly spatially correlated with hydraulic fracturing activities. Their findings further suggested that seismic activity resulted from “stress changes due to the elastic response of the rockmass to hydraulic fracturing,” as well as “pore-pressure changes due to fluid diffusion along a permeable fault zone.”⁷⁴⁰ In contrast to the central United States, where induced seismic activity is primarily caused by massive underground disposal of fracking waste, these findings pointed to the fracking process itself as the trigger. In an interview with the *New York Times*, co-author David Eaton compared fracking to a series of “small underground explosions” that travel into the rock formation and “rapidly change the stress patterns within.” These stress changes can be sufficient to trigger a slip at a critically stressed, previously undetected fault.⁷⁴¹

- November 17, 2016 – An investigation by the *Dallas Morning News* chronicled a pattern of corruption and regulatory failings at the Texas Railroad Commission, the state agency charged with overseeing the oil and gas industry, in its disregard of evidence linking fracking waste disposal to earthquakes in North Texas.⁷⁴²
- November 8, 2016 – On November 6, 2016, a magnitude 5.0 earthquake struck Cushing, Oklahoma near the oil hub where 60 million barrels of crude oil were stored. The quake injured one, damaged more than 40 buildings, closed a school, and triggered evacuations. Oil infrastructure was not damaged.⁷⁴³ (See also entry above for September 14, 2017.)
- October 7, 2016 – The EPA recommended a moratorium on the underground injection of fracking wastewater in certain earthquake-prone parts of Oklahoma after a 5.8 earthquake struck near Pawnee on September 3, 2016.⁷⁴⁴ The strongest in Oklahoma’s history, the Pawnee earthquake was felt by residents in five states and prompted a state of emergency declaration as well as an order from state regulators to shut down 67 wastewater disposal wells in the area.^{745, 746}
- September 22, 2016 – A study using satellite-based radar imagery found that the earth’s surface rose, by 3 millimeters per year, in areas of fracking waste injection. Underground

⁷⁴⁰ Bao, X., & Eaton, D. W. (2016). Fault activation by hydraulic fracturing in western Canada. *Science*, aag2583. doi: 10.1126/science.aag2583

⁷⁴¹ Fountain, H. (2016, November 17). In Canada, a direct link between fracking and earthquakes. *The New York Times*. Retrieved from <https://www.nytimes.com/2016/11/18/science/fracking-earthquakes-alberta-canada.html?mtref=www.google.com&gwh=535A4330D3C30EF6934E1739AC62D5DA&gwt=pay>

⁷⁴² Thompson, S., & Kuchment, A. (2016, November 17). Seismic denial: Why Texas won’t admit fracking wastewater is causing earthquakes. *Dallas Morning News*. Retrieved from http://interactives.dallasnews.com/2016/seismic-denial/#_ga=2.247990020.202656599.1515906987-1750807308.1515724730

⁷⁴³ Philips, M. (2016, November 8). Why Oklahoma can’t turn off its earthquakes. *Bloomberg Businessweek*. Retrieved from <http://www.bloomberg.com/news/articles/2016-11-08/why-oklahoma-can-t-turn-off-its-earthquakes>

⁷⁴⁴ Soraghan, M. (2016, October 7). EPA suggests partial disposal moratorium in Okla. *E&E EnergyWire*. Retrieved from <http://www.eenews.net/energywire/stories/1060043991>

⁷⁴⁵ U.S. Geological Survey. (2016, September 3). M5.8 – 14 km NW of Pawnee, Oklahoma. Retrieved from <http://earthquake.usgs.gov/earthquakes/eventpage/us10006jxs#executive>

⁷⁴⁶ Oklahoma Corporation Commission. (2016, September 12). *Latest action regarding Pawnee area* [Press release]. Retrieved from <https://www.occeweb.com/News/2016/09-12-16Pawnee%20Advisory.pdf>

pore pressures for this area exceeded those known to trigger earthquakes. These findings provide proof that the migration of fracking wastewater into faults increased pressures in ways that triggered a 4.8 magnitude earthquake in east Texas in 2012. The researchers emphasized that pore pressure elevation and propagation from fracking wastewater injection may evolve over periods of months to years before affecting critically stressed faults.⁷⁴⁷

- September 14, 2016 – Researchers from the USGS used a newly deployed seismic monitoring network to document the rupture of a fault plane that set off a magnitude 4.9 earthquake in Milan, Kansas in 2014, immediately following a rapid increase in fracking wastewater injection nearby.⁷⁴⁸
- May 2016 – In a study that has “far-reaching implications for assessment of induced-seismicity hazards,” a Canadian team of researchers determined that hydraulic fracturing itself is linked to earthquake swarms in western Canada, in contrast to the central United States where disposal of fracking waste is the cause of most induced seismicity. Furthermore, lowering the volume of injected fluid may not be sufficient to prevent quakes. In the Western Canada Sedimentary Basin, “it appears that the maximum-observed magnitude of events associated with hydraulic fracturing may exceed the prediction of an often-cited relationship between the volume of injected fluid and the maximum expected magnitude.... Rather, we propose that the size of the available fault surface that is in a critical state of stress may control the maximum magnitude.... Our results indicate that the maximum magnitude of induced events for hydraulic fracturing may not be well correlated with net injected fluid volume.”⁷⁴⁹
- April 29, 2016 – Five small earthquakes in one 24-hour period originated in an area in Lawrence County, Pennsylvania near a fracking operation that was drilling into the deep Utica Shale at the time. Quoted in the *Pittsburg Post-Gazette*, researchers noted that it is very difficult for operators to avoid areas with faults because their locations are very often unknown.⁷⁵⁰
- March 28, 2016 – A summary of the evidence linking drilling and fracking activities to earthquakes appeared in *Scientific American*. Emerging data suggests that pressure changes caused by fracking wastewater injection can migrate for years before encountering a geological fault and altering stresses in ways that allow for slippage. In this way, earthquake risks can spread out over both time and space—traveling for miles

⁷⁴⁷ Shirzaei, M., Ellsworth, W. L., Tiampo, K. F., Gonzalez, P. J., & Manga, M. (2016). Surface uplift and time-dependent seismic hazard due to fluid injection in eastern Texas. *Science*, 353(6306). doi: 10.1126/science.aag0262

⁷⁴⁸ Choy, G. L., Rubenstein, J. L., Yeck, W. L., McNamara, D. E., Mueller, C. S., & Boyd, O. S. (2016). A rare moderate-sized (Mw 4.9) earthquake in Kansas: Rupture process of the Milan, Kansas, earthquake of 12 November 2014 and its relationship to fluid injection. *Seismological Research Letters*, 87. doi: 10.1785/0220160100

⁷⁴⁹ Atkinson, G. M., Eaton, D. W., Ghofrani, H., Walker, D., Cheadle, B., Schultz, R. . . . Kao, H. (2016). Hydraulic fracturing and seismicity in the Western Canada Sedimentary Basin. *Seismological Research Letters*, 87(3). doi: 10.1785/0220150263

⁷⁵⁰ Legere, L. (2016, April 29). State studying link between fracking, Lawrence County earthquakes. *Pittsburgh Post-Gazette*. Retrieved from <http://powersource.post-gazette.com/powersource/companies/2016/04/29/State-studying-link-between-fracking-and-Lawrence-County-earthquakes/stories/201604290099>

beyond the disposal well and persisting for a decade or more as injected fluids travel underground. In spite of increasing scientific clarity about these mechanisms, regulators have been slow to respond.⁷⁵¹

- February 1, 2016 – An article in the *Texas Journal of Oil, Gas, and Energy Law* exhaustively reviewed the literature on earthquake activity in areas of six states (Arkansas, Colorado, Kansas, Ohio, Oklahoma, and Texas) where fracking takes place or drilling wastes are disposed underground and concluded that courts should impose strict liability for earthquake damage caused either by fracking itself or by the underground injection of fracking fluids. “Earthquakes sometimes occur when subsurface formations are properly fractured. Likewise, the risk of earthquake damage is not substantially mitigated by the exercise of due care when frack fluids are injected into the ground.”⁷⁵²
- January 22, 2016 – An international research team investigated a swarm of earthquakes in California’s Central Valley that occurred in 2005. Using hydrogeological modeling, the researchers concluded that the underground injection of wastewater from oil drilling operations had contributed to seismicity via changes in localized pressures along an active fault.⁷⁵³
- January 12, 2016 – As reported by *CBC News*, a Canadian regulatory agency ordered a drilling and fracking operation in northwestern Alberta to shut down after a magnitude 4.8 earthquake struck nearby. The operator was fracking at the time the earthquake happened.⁷⁵⁴
- November 15, 2015 – A spokesperson for the Oklahoma Corporation Commission, which regulates the oil and gas industry in the state, said that Oklahoma now leads the world in earthquake frequency.⁷⁵⁵
- October 29, 2015 – The Kansas Corporation Commission extended limits on the injection of wastewater from fracking operations after a drop in the frequency of earthquakes that followed an earlier order to limit such injections.⁷⁵⁶ Between 2013 and October 2015,

⁷⁵¹ Kuchment, A. (2016, March 28). Drilling for earthquakes. *Scientific American*. Retrieved from <https://www.scientificamerican.com/article/drilling-for-earthquakes/>

⁷⁵² Watson, B. A. (2016). Fracking and cracking: Strict liability for earthquake damage due to wastewater injection and hydraulic fracturing. *Texas Journal of Oil, Gas and Energy Law*, 11(1). Retrieved from <http://ssrn.com/abstract=2735862>

⁷⁵³ Goebel, T. H. W., Hosseini, S. M., Cappa, F., Hauksson, E., Ampuero, J. P., Aminzadeh, F., & Saleeby J. B. (2016). Wastewater disposal and earthquake swarm activity at the southern end of the Central Valley, California. *Geophysical Research Letters*, 43. doi: 10.1002/2015GL066948

⁷⁵⁴ *CBC News*. (2016, January 12). Fox Creek fracking operation closed indefinitely after earthquake. Retrieved from <http://www.cbc.ca/news/canada/edmonton/fox-creek-fracking-operation-closed-indefinitely-after-earthquake-1.3400605>

⁷⁵⁵ Miller, J. (2016, November 10). Oklahoma world’s no. 1 earthquake area. *Enid News and Eagle*. Retrieved from http://www.enidnews.com/news/local_news/oklahoma-world-s-no-earthquake-area/article_69b145b8-c180-5065-8f99-b2a7ec7ce913.html

⁷⁵⁶ Kansas Corporation Commission. (2015, October 29). *Kansas Corporation Commission approves order extending wastewater injection limits*. [Press release.] Retrieved from <http://www.kcc.state.ks.us/pi/press/15-13.htm>

Kansas recorded more than 200 earthquakes. Before that, the average rate was one earthquake every two years.

- October 23, 2015 – *Bloomberg* explored the national security risks that fracking-induced earthquakes in Oklahoma create for the nation’s largest oil storage hub in Cushing, where aboveground tanks hold more than 60 million barrels of crude oil and serve as a way station for oil from North Dakota’s Bakken Shale as it heads to Gulf Coast refineries. Earthquake swarms have hit within a few miles of Cushing and may be harbingers of larger quakes in the future. “Now that quakes appear to have migrated closer to Cushing, the issue of what to do about them has morphed from a state issue to one of national security.... Not only is Cushing crucial to the financial side of the oil market, it is integral to the way physical crude flows around the country.”⁷⁵⁷
- September 21, 2015 – An international team of geologists investigated possible causes of the Lusi mudflow, which began suddenly in 2006 when mud began erupting from the ground in a volcano-like fashion in an urban area of Java in Indonesia. The ongoing disaster has, as of 2015, displaced 39,700 people and cost nearly \$3 billion in damages and disaster management. Looking at data on the emissions of subsurface gases before and after the eruption began, the team concluded that the likely cause was nearby gas drilling that forced fluid into the clay layer via the open well. “We therefore conclude that the Lusi eruption was not triggered naturally but was instead the consequence of drilling operations.”⁷⁵⁸ In interviews with the *New York Times*, lead author Mark Tinjay said, “We are now 99 percent certain that the drilling hypothesis is valid,” while other experts who were not authors of the paper expressed less certainty.⁷⁵⁹
- July 27, 2015 – During a seven-day period in late July, the state of Oklahoma experienced 40 earthquakes. According to the USGS, three registered above magnitude 4.0, one of which was strong enough to be felt by 1.9 million people, including residents of several surrounding states.⁷⁶⁰ In response, gas and oil operators voluntarily shut down two nearby wastewater injection wells and reduced operations by half at a third well.⁷⁶¹ According to the Oklahoma Geological Survey, the recent quakes are occurring along a fault line that extends north of Oklahoma City and signal greater potential for a larger earthquake.⁷⁶² Ten days before the voluntary shutdowns, the Oklahoma Corporation Commission, which regulates the oil and gas industry, put 211 wastewater disposal wells

⁷⁵⁷ Phillips, M. (2015, October 23). Oklahoma earthquakes are a national security threat. *Bloomberg*. Retrieved from <http://www.bloomberg.com/news/articles/2015-10-23/oklahoma-earthquakes-are-a-national-security-threat>

⁷⁵⁸ Tingay, M. R. P., Rudolph, M. L., Manga, M., Davies, R. J., & Wang, C-Y. (2015). Initiation of the Lusi mudflow disaster. *Nature Geoscience*, 8. doi:10.1038/ngeo2472

⁷⁵⁹ Nuwer, R. (2015, September 21). Indonesia’s ‘mud volcano’ and nine years of debate about its muck. *The New York Times*. Retrieved from http://www.nytimes.com/2015/09/22/science/9-years-of-muck-mud-and-debate-in-java.html?rref=collection%2Fsectioncollection%2Fscience&_r=0

⁷⁶⁰ U.S. Geological Survey, (2015, July 27). M4.5 – 6 km NNE of Crescent, Oklahoma. Retrieved from http://earthquake.usgs.gov/earthquakes/eventpage/us200030gd#impact_pager

⁷⁶¹ Oklahoma Corporation Commission (2015, July 28). Media advisory: new actions taken in response to earthquake activity in the Crescent area. Retrieved from <http://www.occeweb.com/News/Crescent%20wells.pdf>

⁷⁶² Murphy, S. (2015, July 28). 2 injection wells shut down after Oklahoma quakes. *Associated Press*. Retrieved from <http://www.santacruzsentinel.com/business/20150728/2-injection-wells-shut-down-after-oklahoma-quakes>

under extra review.⁷⁶³ The next month, Oklahoma regulators, acknowledging that previous efforts have been unsuccessful in reducing seismic activity, asked operators of 23 injection wells to decrease the amount of wastewater injected by 38 percent and signaled that more sweeping regulatory actions may follow.⁷⁶⁴

- July 1, 2015 – Two researchers, from the USGS and the Geological Survey of Canada, offered a summary of the history, basic geology, and engineering of fracking fluid injection and induced seismicity. Noting that since 2001 Oklahoma had experienced two earthquakes of very large magnitude (5.0 and 5.3), the authors called for “a detailed understanding of the physical processes involved in inducing large magnitude events and a detailed understanding of the geology and hydrology at the site of the earthquakes.” They also noted that many important parameters are either unknown or not easily constrained, making it “difficult to determine the wells that will induce earthquakes and those that will not.”⁷⁶⁵
- June 30, 2015 – The Oklahoma Supreme Court ruled that homeowners who have sustained injuries or property damage that they believe is due to earthquakes caused by oil and gas operations can sue for damages in state trial courts. The number of earthquakes with magnitude 3.0 or higher has skyrocketed in Oklahoma, with 1,100 predicted to occur in 2015. Earlier this year, scientists at the state’s geological survey reversed prior views and embraced the conclusion that the majority of the recent earthquakes in central and north-central Oklahoma were “very likely triggered” by underground wastewater disposal. Industry lawyers have complained that liability for such damages will be economically unsustainable. A separate class action lawsuit is planned.⁷⁶⁶
- June 19, 2015 – By compiling a database of 187,570 injection wells in the central and eastern United States, University of Colorado Boulder and USGS researchers were able to test for associations between fracking waste disposal and earthquakes. Results showed far more injection wells were potentially related to earthquakes than had previously been realized, and active disposal-only wells were more than 1.5 times more likely than active oil extraction wells to be associated with an earthquake. In addition, high-rate injection wells, receiving more than 300,000 barrels of fluid per month, were much more likely than lower-rate wells to be associated with an earthquake, while other factors, including wellhead injection pressure, appeared unrelated to increased earthquake activity. The

⁷⁶³ Oklahoma Corporation Commission (2015, July 17). *OCC announces next step in continuing response to earthquake concerns, 200-plus more disposal wells added to action list* [Press release]. Retrieved from <http://www.occeweb.com/News/DIRECTIVE-2.pdf>

⁷⁶⁴ Wines, M. (2015, August 4). Oklahoma acts to limit earthquake risk at oil and gas wells. *The New York Times*. Retrieved from http://www.nytimes.com/2015/08/05/us/oklahoma-acts-to-limit-earthquake-risk-at-oil-and-gas-wells.html?_r=0

⁷⁶⁵ Rubenstein, J. L., & Mahani, A. B. (2015). Myths and facts on wastewater injection, hydraulic fracturing, enhanced oil recovery, and induced seismicity. *Seismological Research Letters*, 86(4), 1060-1067. doi: 10.1785/0220150067

⁷⁶⁶ Opper Jr., R.A. (2015, June 30). Oklahoma court rules homeowners can sue oil companies over quakes. *The New York Times*. Retrieved from http://www.nytimes.com/2015/07/01/us/oklahoma-court-rules-homeowners-can-sue-oil-companies-over-quakes.html?emc=edit_tnt_20150630&nid=66402583&tntemail0=y&_r=0

study called for managing injection rates as “a useful tool to minimize the likelihood of induced earthquakes.” The researchers did not address the impact of hydrofracturing activities *per se* as a potential confounding variable.^{767, 768}

- June 18, 2015 – Close examination of several areas in Oklahoma by Stanford University geophysicists revealed that dramatic increases in recent earthquake activity followed 5- to 10-fold increases in deep-well injection of briny “produced water,” the highly salty fluid that rises to the surface from water-bearing oil reserves and requires disposal. The rate of earthquake occurrence, which began to increase in 2009, is now 600 times higher than it was before the onset of widespread fracking in the state. The disposal of this type of waste in Oklahoma mostly occurs via injection into geological formations that appear to be in hydraulic communication with potentially active faults in the crystalline basement. The study proposed that increasing pressure, spreading away from injection wells over time, could eventually trigger slips on critically stressed faults, resulting in earthquake activity. It is likely that, “even if injection from many wells were to stop immediately, seismicity would continue as pressure continues to spread out from past injection.”⁷⁶⁹
- June 12, 2015 – Researchers in France uncovered an unexpected mechanism by which subsurface fluid injections, such as those used in high volume hydrofracturing, can cause earthquakes. They found that injection of pressurized water can cause fault lines to “creep” rather than slip suddenly as occurs during earthquakes. Earthquakes did follow this slow movement but took place in a portion of the fault outside the pressurized zone. This research demonstrated that subsurface injection of fluids under pressure can cause primary gradual slippage of fault planes leading to secondary sudden seismic activity.^{770, 771}
- June 11, 2015 – As reported by the Vancouver news magazine *The Tyee*, seismic events of magnitude greater than 2.0 (but less than 4.0) in the Fox Creek area were reported in Alberta, Canada since the initiation in February of a novel “traffic light system” for responding to measured seismic activity. The system requires varying responses according to the magnitude of the event, ranging from no action up to ceasing operations and informing the Alberta Energy Regulator for events at magnitudes greater than 4.0. Experts noted that the system does not work well when the largest event in the sequence is the first event. Moreover, once a sequence of earthquakes is initiated, the sequence

⁷⁶⁷ Weingarten, M. Ge, S., Godt, J. W., Bekins, B. A., & Rubinstein, J. L. (2015). High-rate injection is associated with the increase in U.S. mid-continent seismicity. *Science*, 348(6241), 1336-1340. doi: 10.1126/science.aab1345

⁷⁶⁸ Rosen, J. (2015). Pumped up to rumble: Massive studies of wastewater injection wells show fast pumping raises earthquake risk. *Science*, 368(6241), 1299. doi: 10.1126/science.aac6857

⁷⁶⁹ Walsh, F. R. III, & Zoback, M. D. (2015). Oklahoma’s recent earthquakes and saltwater disposal. *Science Advances*, 1(5), e1500195. doi: 10.1126/sciadv.1500195

⁷⁷⁰ Guglielmi, Y., Cappa, F., Avouac, J.-P., Henry, P., & Elsworth, D. (2015). Seismicity triggered by fluid injection-induced aseismic slip. *Science*, 348(6240), 1224-1226. doi: 10.1126/science.aab0476

⁷⁷¹ Johnson, S. K. (2015, June 11). Making tiny earthquakes to understand fracking-driven quakes. *arstechnica*. Retrieved from <http://arstechnica.com/science/2015/06/making-tiny-earthquakes-to-understand-fracking-driven-quakes/>

may continue, sometimes with larger earthquakes, long after potentially causally related drilling or injection activities have ceased.⁷⁷²

- June 1, 2015 – In a data-rich presentation, a team of researchers from St. Louis University, Colorado State University, and USGS concluded that “a fundamental change in the earthquake-triggering process has occurred” in central Oklahoma. Using advanced field monitoring and high-performance software, computer models illustrate active earthquake sequences associated with long fault structures “that might be capable of supporting large earthquakes (M 5 to 6)” and possibly cascades of earthquakes, which could occur near population centers and expensive infrastructure associated with the oil and gas industry, such as a large underground crude-oil storage facility.⁷⁷³
- May 11, 2015 – A series of directives from the Oklahoma Corporation Commission revealed a slowly evolving approach to the regulation of disposal well operations in that state, and the gradual tightening of a “traffic light system” introduced in 2013 to determine whether disposal wells for fracking waste should be permitted, permitted only with special restrictions and requirements, or not permitted, in light of the now-proven connection between the injection of liquid waste and the soaring frequency of earthquakes in Oklahoma. Since 2013, earthquake activity in Oklahoma has continued to increase in rate and intensity.^{774, 775}
- April 23, 2015 – In a first-of-its-kind approach, the USGS is updating its National Seismic Hazard Model to address the rapidly increasing, highly variable, and difficult-to-predict hazards of induced earthquakes.⁷⁷⁶ This initial report identified 17 areas within eight states (Alabama, Arkansas, Colorado, Kansas, New Mexico, Ohio, Oklahoma, and Texas) with increased rates of induced seismicity, including many areas experiencing earthquakes of large magnitude.⁷⁷⁷ Two days before the release of this report, Oklahoma’s state government acknowledged for the first time that wastewater disposal related to oil and gas drilling is “very likely” to blame for the huge surge of earthquakes

⁷⁷² Nikiforuk, A. (2015, June 11). More industry linked earthquakes recorded in Alberta. *TheTyee.ca*. Retrieved from <http://thetyee.ca/News/2015/06/11/More-Fracking-Earthquakes/>

⁷⁷³ McNamara, D. E., Rubinstein, J. L., Myers, E., Smoczyk, G., Benz, H. M., Williams, R. A., . . . Earle, P. (2015). Efforts to monitor and characterize the recent increasing seismicity in central Oklahoma. *The Leading Edge*, 34(6). doi: 10.1190/tle34060628.1

⁷⁷⁴ Oklahoma Corporation Commission, Oil & Gas Conservation Division. (2015, May 11). Media advisory: Ongoing OCC earthquake response. Retrieved from <http://www.occeweb.com/News/2015/ADVISORY%20-%20TRAFFIC%20LIGHT.pdf>

⁷⁷⁵ Oklahoma Corporation Commission. (n.d.) Seismic statement. Retrieved from <http://www.occ.state.ok.us/SeismicStatementB.pdf>

⁷⁷⁶ Petersen, M. D., Mueller, C. S., Moschetti, M. P., Hoover, S. M., Rubinstein, J. L., Llenos, A. L., . . . Anderson, J. G. (2015). Incorporating induced seismicity in the 2014 United States National Seismic Hazard Model—Results of 2014 workshop and sensitivity studies: U.S. Geological Survey Open-File Report 2015–1070. doi: 10.3133/ofr20151070

⁷⁷⁷ USGS. (2015, April 23). New insight on ground shaking from man-made earthquakes. *USGS Newsroom*. Retrieved from http://www.usgs.gov/newsroom/article_pf.asp?ID=4202

in many areas of Oklahoma, the *New York Times* reported.⁷⁷⁸ Several states have developed protocols to shut down existing wells and halt drilling of new disposal wells following an upsurge in earthquake activity.

- April 21, 2015 – Analyzing the unusual increase of seismicity in north Texas since 2008, researchers from Southern Methodist University, the USGS, and University of Texas at Austin concluded that observed earthquake swarms were associated both with extraction (of gas and brine formation waters) and injection (of fracking wastewater), via significant stress changes at earthquake depths. The research team noted that baseline pressure monitoring data, though easy to obtain and routinely collected by industry at well sites, were currently “neither required nor typically available for analysis.” Greater transparency and cooperation in regional seismic monitoring is needed to generate more comprehensive data sets that are necessary for robust earthquake hazard analysis, they asserted.^{779, 780}
- April 21, 2015 – In a statement reporting on an increase in earthquakes in Oklahoma of greater than magnitude 3.0 from less than two per year historically to over two per day in 2015, the Oklahoma Geological Society acknowledged that the primary, suspected source of “triggered seismicity” is the injection and disposal of produced water associated with oil and gas production.⁷⁸¹
- March 30, 2015 – *Bloomberg Business* reported that Oklahoma state seismologists had received pressure from oil industry representatives to downplay the evidence linking fracking wastewater disposal to the soaring frequency of earthquakes in the state.⁷⁸²
- March 6, 2015 – A careful and detailed analysis of historical data coupled with onsite, real-time measurements of seismic activity in central Oklahoma via rapidly deployed seismic sensors revealed that reactivated ancient faults responsible for thousands of earthquakes in Oklahoma are capable of causing larger seismic events. Current hazard maps did not include induced seismicity and therefore underestimate earthquake hazard, the USGS reported. Until new hazard maps become available, providing information about the type, length, and location of these reactivated faults could provide guidance to the oil and gas industry and help inform public policy decisions.⁷⁸³ In addition, noted lead

⁷⁷⁸ Pérez-Peña, R. (2015, April 23). U.S. maps pinpoint earthquakes linked to quest for oil and gas. *The New York Times*. Retrieved from http://www.nytimes.com/2015/04/24/us/us-maps-areas-of-increased-earthquakes-from-human-activity.html?ref=us&_r=1

⁷⁷⁹ Hornbach, M. J., DeShon, H. R., Ellsworth, W. L., Stump, B. W., Hayward, C., Frohlich, C., . . . Luetgert, J.H. (2015). Causal factors for seismicity near Azle, Texas. *Nature Communications*, 6(6728). doi: 10.1038/ncomms7728

⁷⁸⁰ Richter, M. (2015, April 21). Small north Texas quakes likely linked to oil, gas operations – study. *Reuters*. Retrieved from <http://www.reuters.com/article/2015/04/21/us-usa-texas-earthquake-idUSKBN0NC2DY20150421>

⁷⁸¹ Andrews, R.D. & Holland, A. (2015, April 21). Statement on Oklahoma Seismicity. Retrieved from http://wichita.ogs.ou.edu/documents/OGS_Statement-Earthquakes-4-21-15.pdf

⁷⁸² Elgin, B., & Phillips, M. (2015, March 30). Big oil pressured scientists over fracking wastewater’s link to quakes. *Bloomberg Business*. Retrieved from <http://www.bloomberg.com/news/articles/2015-03-30/big-oil-pressured-scientists-over-fracking-wastewater-s-link-to-quakes>

⁷⁸³ McNamara, D. E., Benz, H. M., Herrmann, R. B., Bergman, E. A., Earle, P., Holland, A., . . . Gassner, A. (2015). Earthquake hypocenters and focal mechanisms in central Oklahoma reveal a complex system of reactivated subsurface strike-slip faulting. *Geophysical Research Letters*, 42(8), 2742–2749. doi: 10.1002/2014GL062730

author Dan McNamara, such information can “aid in adapting building codes to ensure that structures can withstand more damaging earthquakes.”⁷⁸⁴

- February 20, 2015 – Scientists with the USGS reported in *Science* about grappling with an unexpected increase in injection-related seismic activity across the middle of North America. In 2014, the number of measured earthquakes with magnitude of 3 or greater in Oklahoma exceeded that in California, and observations increasingly suggested that the effects of fluid injection were not confined to the target formation but instead were communicated, sometimes to greater depths, along pre-existing faults. Making hazard modeling more difficult, “most of these faults are only detected when they are imaged by well-located induced earthquakes.” Consequently, predicting and controlling such seismic activity may not be possible, leading to a recommendation that injection projects should be sited away from population centers.⁷⁸⁵
- February 5, 2015 – Citing an association between increased water use and fracking-induced seismic activity, a research scientist at the Geological Survey of Canada offered the quantity of water injected underground as his hypothesis for an observed increase in the frequency and magnitude of earthquake activity in areas near fracking wells. Although the Council of Canadian Academies in 2014 called for more monitoring and data collection, there are only ten monitoring stations in British Columbia, overseeing the operations of thousands of fracking wells, reported the *Vancouver Observer*.⁷⁸⁶
- January 29, 2015 – The industry-funded Alberta Energy Regulator confirmed that the location of an earthquake of magnitude 4.4 near Fox Creek, Alberta, was “consistent with being induced by hydraulic fracturing operations,” making it the largest felt earthquake yet believed to be related to fracking. Despite claims from industry that tremors related to deep-level fracking could never reach magnitudes that would allow them to be felt on the surface, Gail Atkinson, who holds the Canada Research Chair in Induced Seismicity Hazards at Western University in Ontario, noted, “With fracking, the magnitudes have been increasing every year.”⁷⁸⁷
- January 6, 2015 – Using a specialized program, Miami University researchers analyzed data from multiple seismic stations and determined that a cluster of 77 earthquakes in Poland Township, Ohio, which occurred over the course of a little more than a week, was related temporally and spatially to active hydraulic fracturing operations. When the fracturing operations were shut down, the rate of earthquake activity declined to only 6 events in the next 12 hours and only a single event over approximately the next two

⁷⁸⁴ Koontz, H. (2015, March 6). *Reawakened Oklahoma faults could produce larger future events* [Press release]. Retrieved from http://www.usgs.gov/newsroom/article_pf.asp?ID=4144

⁷⁸⁵ McGarr, A., Bekins, B., Burkardt, N., Dewey, J., Earle, P., Ellsworth, W., Ge, S., ... Sheehan, A. (2015). Coping with earthquakes induced by fluid injection. *Science*, 347(6224), 830-831. doi: 10.1126/science.aaa0494

⁷⁸⁶ Leahy, D. (2015, February 5). Fracking-induced earthquake puts B.C. gas bonanza on shaky ground. *Vancouver Observer*. Retrieved from <http://www.vancouverobserver.com/news/fracking-induced-earthquake-puts-bc-gas-bonanza-shaky-ground>

⁷⁸⁷ Nikiforuk, A. (2015, January 29). Did Alberta just break a fracking earthquake world record? *TheTye.ca*. Retrieved from http://thetye.ca/News/2015/01/29/Alberta-Fracking-Earthquake/?utm_source=fb-page-editor-post&utm_medium=fb-page&utm_campaign=fb-01-2015

months. Among this cluster of seismic activity, an earthquake of magnitude 3.0 ranks as one of the largest earthquakes in the United States to be induced by hydraulic fracturing. The mechanism for these earthquakes appears to be induction of slip along a pre-existing fault or fracture zone. Because “no known fault or historical seismicity had been [previously] identified in the area,” regulations prohibiting fracturing within three miles of a known fault would not have been protective.^{788, 789}

- December 18, 2014 – In Canada, an investigation by the British Columbia Oil and Gas Commission found that induced seismicity in the Horn River Basin could be attributed both to wastewater disposal and to hydraulic fracturing operations. The Commission recommended mitigation of induced seismicity from wastewater disposal by “reducing injection rates, limiting the increase in [subsurface] reservoir pressure, and locating distal from faults,” among other mitigation techniques.^{790, 791}
- October 23, 2014 – Researchers from USGS and the Global Seismological Services in Golden, Colorado, linked a 2011 magnitude 5.3 earthquake in Colorado, which damaged the foundations of several homes, to underground disposal of fracking wastewater. The study determined that the earthquake ruptured an 8-10 kilometer-long segment of normal faults—an unexpectedly long length for a magnitude 5.3 earthquake—suggesting that wastewater disposal may have triggered a low stress drop.⁷⁹² Lead author Bill Barnhart, a USGS geophysicist, told *Reuters*, “We saw a big increase in seismicity starting in 2001, including magnitude 5 earthquakes, in many locations in the basin, and that coincided with a surge in gas production and injection of wastewater.”⁷⁹³
- September 23, 2014 – Youngstown State University geologist Ray Beiersdorfer described increased seismic activity in Youngstown, Ohio in an essay that explores how fracking and fracking-related processes are causing “earthquake epidemics” across the United States.⁷⁹⁴

⁷⁸⁸ Skoumal, R. J., Brudzinski, M. R. & Currie, B. S. (2015). Earthquakes induced by hydraulic fracturing in Poland Township, Ohio. *Bulletin of the Seismological Society of America* 105(1). doi: 10.1785/0120140168

⁷⁸⁹ Wines, M. (2015, January 10). New research links scores of earthquakes to fracking wells near a fault in Ohio. *The New York Times*. Retrieved from http://www.nytimes.com/2015/01/08/us/new-research-links-scores-of-earthquakes-to-fracking-wells-near-a-fault-in-ohio.html?hp&action=click&pgtype=Homepage&module=first-column-region®ion=top-news&WT.nav=top-news&assetType=nyt_now&r=0

⁷⁹⁰ BC Oil & Gas Commission (2014). *Investigation of observed seismicity in the Montney Trend*. Retrieved from <http://www.bcogc.ca/node/12291/download>

⁷⁹¹ Nikiforuk, A. (2015, January 10). Fracking industry shakes up Northern BC with 231 tremors. *TheTyee.ca*. Retrieved from http://www.thetyee.ca/News/2015/01/10/Fracking_Industry_Shakes_Up_Northern_BC/

⁷⁹² Barnhart, W. D., Benz, H.M., Hayes, G.P., Rubinstein, J.L., & Bergman, E. (2014), Seismological and geodetic constraints on the 2011 Mw5.3 Trinidad, Colorado earthquake and induced deformation in the Raton Basin, *Journal of Geophysical Research: Solid Earth*, 119, 7923–7933, doi: 10.1002/2014JB011227. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/2014JB011227/abstract>

⁷⁹³ Zuckerman, L. (2014, October 29). Gas wastewater likely triggered 2011 quake in Colorado: USGS. *Reuters*. Retrieved from <http://www.reuters.com/article/2014/10/29/us-usa-earthquake-colorado-idUSKBN0II2NP20141029>

⁷⁹⁴ Beiersdorfer, R. (2014, September 23). View: On fracking, earthquakes and Indian Point. *Journal Online*. Retrieved from <http://www.lohud.com/story/opinion/contributors/2014/09/23/view-geologist-warns-fracking-ties-earthquakes/16100755/>

- September 15, 2014 – Researchers at the National Energy Technology Laboratory teamed up with researchers from industry and academia to publish data and analysis from a closely watched project that involved field monitoring of the induced fracturing of six horizontal Marcellus Shale gas wells in Greene County, Pennsylvania. Touted in earlier media reports as demonstrating that, during short-term follow-up, fracking chemicals injected into these six wells did not spread to overlying aquifers⁷⁹⁵, the study’s most notable finding is striking documentation of fractures from three of the six wells extending vertically to reach above an overlying rock layer previously thought to create an impenetrable “frac barrier” (that is, an upper barrier to fracture growth). In one case, a fracture extended vertically 1,900 feet, a surprisingly far distance. No pre-existing fault had been detected at this location, suggesting that small “pre-existing fractures or small-offset (sub-seismic) faults may have focused the energy of hydraulic fractures on certain areas....” Perhaps because of the extremely small sample size and a design focused primarily on monitoring for potential gas and fluid migration, the study’s analysis includes no discussion of the seismic relevance of extremely long, vertical induced fractures.⁷⁹⁶
- September 15, 2014 – Scientists from USGS ascribed causality to wastewater injection wells from coal-bed methane production for increases in seismic activity in New Mexico and Colorado and, in particular, for an earthquake that measured magnitude 5.3 in Colorado in 2011—the second largest earthquake to date for which there is clear evidence that the earthquake sequence was induced by fluid injection.⁷⁹⁷
- September 6, 2014 – The Ohio Department of Natural Resources suspended operations at two deep-injection wells for fracking wastewater near Warren in northeastern Ohio after discovering evidence that the operation possibly caused a magnitude 2.1 earthquake. The injection well operator, American Water Management Services, had recently received permission to increase pressures at the site of the wells. In 2012, Governor John Kasich had halted disposal of fracking wastewater surrounding a well site in the same region after a series of earthquakes were tied to a deep-injection well. The company that ran that well has disputed the link. The state placed seismic-monitoring devices in the Warren area under protocols adopted after the series of earthquakes in nearby Youngstown.⁷⁹⁸

⁷⁹⁵ Begos, K. (2014, July 19). DOE study: Fracking chemicals didn't taint water. *Associated Press*. Retrieved from <http://bigstory.ap.org/article/ap-study-finds-fracking-chemicals-didnt-spread>

⁷⁹⁶ Hammack, R., Harbert, W., Sharma, S., Stewart, B. W., Capo, R. C., Wall, A. J., . . . Veloski, G. (2014). An evaluation of fracture growth and gas/fluid migration as horizontal Marcellus Shale gas wells are hydraulically fractured in Greene County, Pennsylvania. *NETL-TRS-3-2014: EPA Act Technical Report Series. US Dept of Energy, National Energy Technology Laboratory*: Pittsburgh PA. Retrieved from http://www.netl.doe.gov/File%20Library/Research/onsite%20research/publications/NETL-TRS-3-2014_Greene-County-Site_20140915_1_1.pdf

⁷⁹⁷ Rubinstein, J. L., Ellsworth, W. L., McGarr, A., & Benz, H. M. (2014). The 2001-present induced earthquake sequence in the Raton Basin of Northern New Mexico and Southern Colorado [abstract]. *Bulletin of the Seismological Society of America*. Retrieved from <http://www.bssaonline.org/content/104/5/2162.abstract?stoc>

⁷⁹⁸ Smyth, J. C. (2014, September 6). Ohio halts injections at two wells for fracking wastewater after quake. *Associated Press*. Retrieved from <http://www.dispatch.com/content/stories/local/2014/09/06/ohio-halts-2-wells-for-fracking-wastewater-after-quake.html>

- September 1, 2014 – Explaining the need for increased seismic monitoring, Andrew Beaton, Director of the Alberta Geological Survey, stated that over a long period of time, stresses increase in and around an injection wellbore. Seismic movement can be caused if the rate of injection is too fast or if there is a geological feature, such as a fault or fracture in nearby areas. Although Albertans in rural areas have been reporting for years that they can feel tremors under their feet near oil and gas activity, especially around areas of fracking, the Alberta Energy Regulator noted that deep well injections have been shown to create more of an earthquake hazard than hydraulic fracturing. Alberta experienced 819 earthquakes between 1918 and 2009. In comparison, Saskatchewan recorded 13 in the same time period and British Columbia recorded more than 1,200 earthquakes in 2007 alone. There are currently 24 seismic monitors in Alberta, which are tied into other networks, such as those belonging to Environment Canada, University of Calgary, and University of Alberta.⁷⁹⁹
- August 26, 2014 – In a first-of-its-kind lawsuit, a resident of Prague, Oklahoma, sued two energy companies after rocks fell from her chimney and injured her leg during an earthquake of greater than magnitude 5. The lawsuit claims that underground injection of fracking wastewater conducted by New Dominion LLC and Spess Oil Company has caused shifts in fault lines that have resulted in earthquakes.⁸⁰⁰
- July 31, 2014 – William Ellsworth, a research geophysicist at the USGS Earthquake Science Center, reported that USGS is developing a hazard model that takes induced earthquakes into account. In addition, residents of Oklahoma, where a sharp spike in earthquake activity has been noted over the past decade, are showing an increased interest in obtaining earthquake insurance.⁸⁰¹
- July 3, 2014 – Using data from the Oklahoma Corporation Commission, a team of researchers led by Cornell University geophysicist Katie Keranen found that a steep rise in earthquakes in Oklahoma can be explained by fluid migration from wastewater disposal wells. Moreover, injected fluids in high volume wells triggered earthquakes over 30 kilometers (over 18 miles) away. All of the wells analyzed were operated in compliance with existing regulations. Similar mechanisms may function in other states with high volumes of underground injection of wastewater from unconventional oil and gas production.⁸⁰² Reporting on the study and the increase in earthquakes across the United States and the link to fracking and wastewater disposal, the *Associated Press*

⁷⁹⁹ Maclean, R. (2014, September 1). Earthquake hazard linked with deep well injection in Alberta: Deep well disposal of oilfield waste over time leads to increased earthquake risk. *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/calgary/earthquake-hazard-linked-with-deep-well-injection-in-alberta-1.2751963>

⁸⁰⁰ Rangel, L. (2014, August 26). Prague resident files lawsuit against two Okla. energy companies following earthquake injury. *Newschannel 4 (kfor.com)*. Retrieved from <http://kfor.com/2014/08/26/prague-resident-files-lawsuit-against-two-okla-energy-companies-following-earthquake-injury/>

⁸⁰¹ Eaton, J. (2014, July 31). Oklahoma grapples with earthquake spike—and evidence of industry's role: Spike in seismic activity is linked with oil and gas wastewater disposal. *National Geographic*. Retrieved from <http://news.nationalgeographic.com/energy/2014/07/140731-oklahoma-earthquake-spike-wastewater-injection/>

⁸⁰² Keranen, K. M., Weingarten, M., Abers, G. A., Bekins, B. A., & Ge, S. (2014). Sharp increase in central Oklahoma seismicity since 2008 induced by massive wastewater injection. *Science*, *345*(6195), 448-451. doi: 10.1126/science.1255802

noted that some states, including Ohio, Oklahoma, and California, have introduced new rules compelling drillers to measure the volumes and pressures of their injection wells as well as to monitor seismicity during fracking operations.⁸⁰³

- July 1, 2014 – Seismologists linked the emergence of a giant sinkhole that formed in August 2012 near Bayou Corne in southeast Louisiana to tremors (earthquakes) caused by high-pressure pulses of either natural gas or water charged with natural gas. The surges of natural gas that caused the explosive tremors (earthquakes) may have weakened an adjacent salt cavern and caused its collapse. Alternatively, part of the salt cavern may have collapsed, causing a nearby gas pocket to give off surges of gas, later followed by the complete collapse of the salt cavern. These findings help illuminate the role of pressurized fluids in triggering seismic events.⁸⁰⁴
- June 24, 2014 – Following two earthquakes within a one-month period, the Colorado Oil and Gas Conservation Commission directed High Sierra Water Services to stop disposing wastewater into one of its Weld County injection wells. Monitoring by a team of seismologists from the University of Colorado had picked up evidence of continuing low-level seismic activity near the injection site, including a magnitude 2.6 event less than a month following a magnitude 3.4 earthquake that shook the Greeley area on May 31, 2014.⁸⁰⁵
- May 2, 2014 – The USGS and Oklahoma Geological Survey (OGS) jointly issued an official earthquake warning for Oklahoma, pointing out that the number of earthquakes in the state has risen 50 percent since just October—when the two agencies had issued a prior warning. The advisory stated that this dramatic increase in the frequency of small earthquakes “significantly increases the chance for a damaging quake in central Oklahoma.” Injection wells used for the disposal of liquid fracking waste have been implicated as the presumptive cause of the earthquake swarm. According to the OGS, about 80 percent of the state of Oklahoma is closer than ten miles from an injection well.⁸⁰⁶ Since the joint earthquake advisory was released in May, the number of earthquakes in Oklahoma has continued to rise. During the first four months of 2014, Oklahoma had experienced 109 earthquakes of magnitude 3 or higher on the Richter

⁸⁰³ Schmall, E. & Jouzavavicius, J. (2014, July 14). States with fracking see surge in earthquake activity. *Associated Press*. Retrieved from http://www.huffingtonpost.com/2014/07/14/fracking-earthquake_n_5585892.html

⁸⁰⁴ Nayak, A. & Dreger, D. S. (2014). Moment tensor inversion of seismic events associated with the sinkhole at Napoleonville Salt Dome, Louisiana. *Bulletin of Seismological Society of America* 104(4), 1763-1776. doi: 10.1785/0120130260

⁸⁰⁵ Tomasic, J. (2014, June 24). Colorado drilling regulators halt injection-well activity in reaction to Greeley quake. *Colorado Independent*. Retrieved from <http://www.coloradoindependent.com/147934/colorado-drilling-regulators-halt-injection-well-activity-in-reaction-to-greeley-quake/> (see also Baker, B. (2014, June 24). Colorado regulators halt fracking wastewater injection operation after earthquake strikes area for second time in a month. *Ecowatch*. Retrieved from <http://ecowatch.com/2014/06/24/colorado-wastewater-injection-earthquake/>)

⁸⁰⁶ Geological Survey Joint Statement. (2014, May 2). Record number of Oklahoma tremors raises possibility of damaging earthquakes. United States Geological Survey. Retrieved from http://earthquake.usgs.gov/regional/ceus/products/newsrelease_05022014.php

scale. By mid-June, the number of earthquakes had topped 200, exceeding the frequency of earthquakes in California.⁸⁰⁷

- May 2, 2014 – At the annual meeting of the Seismological Society of America, leading geologists warned that the risks and impacts of earthquakes from fracking and injection wells are even more significant than previously thought, pointing out that such earthquakes could occur tens of miles away from wells themselves, including quakes greater than magnitude 5.0. Justin Rubinstein, a research geophysicist at the USGS said, “This demonstrates there is a significant hazard. We need to address ongoing seismicity.”⁸⁰⁸ Seismologist Gail Atkinson reported, “We don’t know how to evaluate the likelihood that a [fracking or wastewater] operation will be a seismic source in advance.”⁸⁰⁹
- April 11, 2014 – State geologists reported a link between fracking and a spate of earthquakes in Ohio, prompting the Ohio Department of Natural Resources to place a moratorium on drilling in certain areas and to require greater seismic monitoring.⁸¹⁰
- April 3, 2014 – Researchers linked earthquakes in Mexico to fracking in the Eagle Ford Shale, which extends beneath both southern Texas and northern Mexico. They also noted a statistical correlation between seismic activity and fracking, particularly in the border state of Nuevo Leon, which registered at least 31 quakes between magnitude 3.1 and 4.3.⁸¹¹
- April 2014 – Researchers from the University of Alberta and the Alberta Geological Survey published a study in the *Journal of Geophysical Research* that found wastewater injection in Alberta is highly correlated with spikes of seismic activity between October 2006 and March 2012.⁸¹² On November 13, 2014, *CBC News* reported on a more recent increase in earthquakes, which may also be linked to injection wells.⁸¹³

⁸⁰⁷ Branson-Potts, H. (2014, June 17). Oklahoma coming to terms with unprecedented surge in earthquakes. *Los Angeles Times*. Retrieved from <http://www.latimes.com/nation/la-na-oklahoma-earthquakes-20140618-story.html#page=1>

⁸⁰⁸ Walsh, B. (2014, May 1). The seismic link between fracking and earthquakes. *Time*. Retrieved June 9, 2014, from <http://time.com/84225/fracking-and-earthquake-link/>

⁸⁰⁹ Kiger, P. J. (2014, May 2). Scientists warn of quake risk from fracking operations. *National Geographic*. Retrieved from <http://news.nationalgeographic.com/news/energy/2014/05/140502-scientists-warn-of-quake-risk-from-fracking-operations/>

⁸¹⁰ Dave, P. (2014, April 12). Ohio finds link between fracking and sudden burst of earthquakes. *Los Angeles Times*. Retrieved from <http://www.latimes.com/nation/nationnow/la-na-nn-ohio-finds-link-fracking-earthquakes-20140411-story.html#axzz2yrnpHW1h>

⁸¹¹ Godoy, E. (2014, April 3). Fracking, seismic activity grow hand in hand in Mexico. *Inter Press Service*. Retrieved from <http://www.ipsnews.net/2014/04/fracking-seismic-activity-grow-hand-hand-mexico/>

⁸¹² Schultz, R., Stern, V., & Gu, Y. J. (2014). An investigation of seismicity clustered near the Cordel Field, west central Alberta, and its relation to a nearby disposal well. *Journal of Geophysical Research: Solid Earth*, 119, 3410–3423. doi: 10.1002/2013JB010836

⁸¹³ Trynacity, K., & Siekierska, A. (2014, November 13). Fracking linked to Alberta earthquakes, study indicates. *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/edmonton/fracking-linked-to-alberta-earthquakes-study-indicates-1.2829484>

- March 7, 2014 – USGS researchers published a study confirming that Oklahoma’s damaging magnitude 5.7 earthquake in 2011 was caused by fracking wastewater injection.⁸¹⁴ One of the authors of the study, seismologist Elizabeth Cochran, noted, “Even if wastewater injection only directly affects a low-hazard fault, those smaller events could trigger an event on a larger fault nearby.”⁸¹⁵
- January 30, 2014 – A USGS research team linked the rise in earthquakes in Colorado to fracking wastewater injection wells and announced that a study will be published in six to nine months.⁸¹⁶
- December 12, 2013 – The *New York Times* detailed the growing link between fracking wastewater injection wells and earthquakes, as well as between fracking itself and earthquakes, with a focus on Oklahoma and a recent magnitude 4.5 earthquake there. As the *New York Times* noted, “Oklahoma has never been known as earthquake country, with a yearly average of about 50 tremors, almost all of them minor. But in the past three years, the state has had thousands of quakes. This year has been the most active, with more than 2,600 so far, including 87 last week.... State officials say they are concerned, and residents accustomed to tornadoes and hail are now talking about buying earthquake insurance.”⁸¹⁷
- November 19, 2013 – *Reuters* reported that a series of Oklahoma earthquakes in September of 2013 damaged several homes, and that more scientists in a number of states are concerned about earthquakes related to oil and gas development. Seismologist Austin Holland with the University of Oklahoma said, “This is a dramatic new rate of seismicity.”⁸¹⁸
- July 19, 2013 – A study from the Lamont-Doherty Earth Observatory linked 109 earthquakes in Youngstown, Ohio to fracking wastewater disposal.^{819, 820}
- July 11, 2013 – A study in *Science* by Columbia University’s Lamont-Doherty Earth Observatory showed that deep-well injection of fracking waste can stress geological

⁸¹⁴ Sumy, D. F., Cochran, E. S., Keranen, K. M., Wei, M., & Abers, G. A. (2013). Observations of static Coulomb stress triggering of the November 2011 M5.7 Oklahoma earthquake sequence [Abstract]. *Journal of Geophysical Research: Solid Earth*, 119(3), 1904-1923. doi: 10.1002/2013JB010612

⁸¹⁵ Oskin, B. (2014, March 07). Wastewater injection triggered Oklahoma's earthquake cascade. *Live Science*. Retrieved from <http://www.livescience.com/43953-wastewater-injection-earthquake-triggering.html>

⁸¹⁶ McClurg, L. (2014, January 30). Earthquakes in southern Colorado linked to oil and gas production. *Colorado Public Radio*. Retrieved from <http://www.cpr.org/news/story/earthquakes-southern-colorado-linked-oil-and-gas-production#sthash.UVvw0JWe.UQwWtYJS.dpuf>

⁸¹⁷ Fountain, H. (2013, December 12). Experts eye oil and gas industry as quakes shake Oklahoma. *The New York Times*. Retrieved from <http://www.nytimes.com/2013/12/13/science/earth/as-quakes-shake-oklahoma-scientists-eye-oil-and-gas-industry.html>

⁸¹⁸ Gillam, C. (2013, November 19). In Oklahoma, water, fracking - and a swarm of quakes. *Reuters*. Retrieved from <http://www.reuters.com/article/2013/11/19/us-usa-earthquakes-fracking-oklahoma-idUSBRE9AI12W20131119>

⁸¹⁹ Kim, W. (2013). Induced seismicity associated with fluid injection into a deep well in Youngstown, Ohio. *Journal of Geophysical Research: Solid Earth*, 118(7), 3506-3518. doi: 10.1002/jgrb.50247

⁸²⁰ Chameides, B. (2013, September 5). Fracking waste wells linked to Ohio earthquakes. *Scientific American*. Retrieved from <http://www.scientificamerican.com/article/fracking-waste-wells-linked-to-ohio-earthquakes/>

faults in ways that make them vulnerable to slipping. The research shows that distant natural earthquakes triggered swarms of smaller earthquakes on critically stressed faults. The researchers wrote, “The fluids [in wastewater injection wells] are driving the faults to their tipping point.... Areas with suspected anthropogenic earthquakes are more susceptible to earthquake-triggering from natural transient stresses generated by the seismic waves of large remote earthquakes.”⁸²¹

- April 2013 – A group of British researchers stated that hydraulic fracturing itself was the likely cause of at least three earthquakes powerful enough to be felt by human beings at the surface. The researchers proposed that increases in the fluid pressure in fault zones were the causal mechanism for these three known instances of “felt seismicity” in the United States, Canada, and the United Kingdom. The largest of these earthquakes was a magnitude 3.8 in the Horn River Basin, Canada.⁸²²
- March 26, 2013 – Scientists from the University of Oklahoma, Columbia University and USGS linked a 2011 swarm of earthquakes in Oklahoma to fracking waste disposal in that state.⁸²³ This included a magnitude 5.7 earthquake—possibly the largest ever triggered by wastewater injection—that injured two people, destroyed 14 homes, and was felt across 17 states.⁸²⁴ The research team concluded in a paper in the journal *Geology* that their data called into question the previously predicted maximum size of injection-induced earthquakes.^{825, 826}
- December 14, 2012 – At a 2012 American Geophysical Union meeting, scientists presented data and concluded that some U.S. states, including Oklahoma, Texas and Colorado, have experienced a significant rise in seismic activity coinciding with a boom in gas drilling, fracking and wastewater disposal. Scientists further found that Oklahoma has seen a significant increase in earthquakes linked to wastewater injection, that a 5.3 earthquake in New Mexico was linked to wastewater injection, and that earthquakes were increasingly common within two miles of injection wells in the Barnett Shale region of Texas. Art McGarr, a researcher at the USGS Earthquake Science Center, concluded that,

⁸²¹ Begley, S. (2013, July 11). Study raises new concern about earthquakes and fracking fluids. *Reuters*. Retrieved from <http://www.reuters.com/article/2013/07/11/us-science-fracking-earthquakes-idUSBRE96A0TZ20130711>

⁸²² Davies, R., Foulger, G., Bindley, A., & Styles, P. (2013). Induced seismicity and hydraulic fracturing for the recovery of hydrocarbons. *Marine and Petroleum Geology*, 45, 171-185. doi: 10.1016/j.marpetgeo.2013.03.016

⁸²³ Drajem, M., & Efstathiou, J., Jr. (2013, March 26). Quake tied to oil-drilling waste adds pressure for rules. *Bloomberg*. Retrieved from <http://www.bloomberg.com/news/2013-03-26/oklahoma-earthquake-in-2011-tied-to-wastewater-wells-in-fracking.html>

⁸²⁴ Behar, M. (2013, March/April). Fracking's latest scandal? Earthquake swarms. *Mother Jones*. Retrieved from <http://www.motherjones.com/environment/2013/03/does-fracking-cause-earthquakes-wastewater-dewatering?page=1>

⁸²⁵ Keranen, K. M., Savage, H. M., Abers, G. A., & Cochran, E.S. (2013). Potentially induced earthquakes in Oklahoma, USA: Links between wastewater injection and the 2011 Mw 5.7 earthquake sequence. *Geology*. doi: 10.1130/G34045.1

⁸²⁶ Diep, F. (2013, March 28). Study: wastewater injection caused Oklahoma's largest-ever earthquake. *Popular Science*. Retrieved from <http://www.popsoci.com/science/article/2013-03/largest-earthquake-ever-linked-lightly-regulated-wastewater-wells>

“The future probably holds a lot more in induced earthquakes as the gas boom expands.”⁸²⁷

- November 30, 2012, January 11, 2012, December 22, 2009 – In three different sets of comments on proposed fracking guidelines and regulations, citing scientific reports linking oil and gas infrastructure to seismic activity, the New York City Department of Environmental Protection (NYC DEP) raised serious concerns about the impacts of potential seismic activity from fracking-related activities on New York City’s water supply infrastructure.^{828, 829, 830} The NYC DEP has consistently raised concerns that seismic activity surrounding New York City’s aquifers and watershed infrastructure could threaten the city’s drinking water supply by triggering microseismic events and small induced earthquakes that, in turn, could threaten the integrity of the aging, 100-mile-long aqueducts that carry drinking water from the Catskill Mountains into the New York City metropolitan area. The agency expressed specific concerns about the ability of hydraulic fracturing fluids to migrate underground and to intercept and reactivate faults miles away.
- September 6, 2012 – The British Columbia Oil and Gas Commission determined that fracking itself causes earthquakes, pointing to the results of a probe into 38 seismic events near fracking operations in the Horn River Basin. The report noted that no quakes had been recorded in the area prior to April 2009, before fracking began. The report recommended that the link between fracking and seismic activity be further examined.⁸³¹
- March 29, 2012 – The USGS found that between 2001 and 2011, there was a six-fold increase in earthquakes greater than magnitude 3.0 in the middle of the United States that “are almost certainly manmade.” The agency further reported that the increase appears to be linked to oil and gas production and deep injection of drilling wastewater.^{832, 833}

⁸²⁷ Leber, J. (2012, December 14). Studies link earthquakes to wastewater from fracking. *MIT Technology Review*. Retrieved from <http://www.technologyreview.com/news/508151/studies-link-earthquakes-to-wastewater-from-fracking/>

⁸²⁸ New York City Department of Environmental Protection. (2009, December 22). *New York City comments on: Draft supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program - Well permit issuance for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus Shale and other low-permeability gas reservoirs* (Rep.). Retrieved from http://www.nyc.gov/html/dep/pdf/natural_gas_drilling/nycdep_comments_final_12-22-09.pdf

⁸²⁹ New York City Department of Environmental Protection. (2012, January 11). *Comments on the revised draft supplemental generic environmental impact statement*. (Rep.). Retrieved from http://www.nyc.gov/html/dep/pdf/natural_gas_drilling/nycdep_comments_on_rdsgeis_for_hvhf_20120111.pdf

⁸³⁰ New York City Department of Environmental Protection. (2012, November 30). *Comments on the revised high-volume hydraulic fracturing regulations* (Rep.). Retrieved from http://www.nyc.gov/html/dep/pdf/natural_gas_drilling/revise_high_volume_hydraulic_fracturing_regulations_comments_letter_010713.pdf

⁸³¹ The Canadian Press. (2012, September 6). Fracking causes minor earthquakes, B.C. regulator says. *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/british-columbia/fracking-causes-minor-earthquakes-b-c-regulator-says-1.1209063>

⁸³² Ellsworth, W. (2011, April 18). Are seismicity rate changes in the midcontinent natural or manmade? Retrieved from http://www2.seismosoc.org/FMPro?-db=Abstract_Submission_12&-sortfield=PresDay&-sortorder=ascending&-sortfield=Special+Session+Name+Calc&-sortorder=ascending&-sortfield=PresTimeSort&-

- July 31, 2011 – Numerous earthquakes in Arkansas motivated the Arkansas Oil and Gas Commission to shut down a disposal well and enact a permanent moratorium on future disposal wells in a nearly 1,200 square-mile area of the Fayetteville Shale.⁸³⁴
- March 10, 2010 – In Texas, a 2008-2009 swarm of earthquakes in the Dallas-Fort Worth area was linked to produced water disposal wells.⁸³⁵
- June 12, 2009 – *The Wall Street Journal* reported that earthquakes shook Cleburne, Texas, a small town at the epicenter of fracking activity. More earthquakes were detected during that period of fracking activity than in the previous 30 years combined.⁸³⁶

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 recid=224&-format=%2Fmeetings%2F2012%2Fabstracts%2Fsessionabstractdetail.html&-lay=MtgList&-find

⁸³³ Soraghan, M. (2012, March 29). 'Remarkable' spate of man-made quakes linked to drilling, USGS team says. *E&E Publishing, LLC*. Retrieved from <http://www.eenews.net/stories/1059962190>

⁸³⁴ Zilk, C. (2011, July 31). Permanent disposal-well moratorium issued. *Arkansas Online*. Retrieved from <http://www.arkansasonline.com/news/2011/jul/31/permanent-disposal-well-moratorium-issued-20110731/>

⁸³⁵ Frohlich, C., Hayward, C., Stump, B., & Potter, E. (2011). The Dallas-Fort Worth Earthquake Sequence: October 2008 through May 2009. *Bulletin of the Seismological Society of America*, 101(1), 327-340. doi: 10.1785/0120100131

⁸³⁶ Casselman, B. (2009, June 12). Temblors rattle Texas town. *Wall Street Journal*. Retrieved from <http://online.wsj.com/news/articles/SB124476331270108225>

Abandoned and active wells as pathways for gas and fluid migration

Most fracking operations take place in oil and gas fields with a long history of conventional drilling and therefore with many abandoned wells. These can serve as potential pathways for contaminants to migrate vertically. Of the estimated 2.6 million oil and gas wells across the United States that are no longer in production, the location and status of the vast majority are not recorded in state databases, and most remain unplugged. Whether plugged or unplugged, abandoned wells are a significant source of methane leakage into the atmosphere and, based on findings from New York and Pennsylvania, may exceed cumulative total leakage from oil and gas wells currently in production. No state or federal agency routinely monitors methane leakage from abandoned wells. Abandoned wells also serve as underground pathways for fluid migration, heightening risks of groundwater contamination. Fluid can migrate upward through vertical channels when fractures from new drilling and fracking operations intersect with old wells. The most probable pathway of contaminant transport takes place outside the well casing. Industry experts, consultants, and government agencies including the U.S. Environmental Protection Agency (EPA), the U.S. Government Accountability Office (GAO), Texas Department of Agriculture, New York State Department of Environmental Conservation (NYS DEC), Pennsylvania Department of Environmental Protection (PA DEP), Illinois Environmental Protection Agency, and the British Columbia Oil and Gas Commission have all warned about problems with abandoned wells due to the potential for pressurized fluids and gases to migrate through inactive and, in some cases, active wells.

- March 11, 2019 – There are roughly 200,000 abandoned oil and gas wells in Pennsylvania left over from more than a century of drilling. Most are not mapped. Alabama-based Diversified Gas & Oil, which now owns about 23,000 gas wells in the state, reached an agreement with the PA DEP to plug 1,400 abandoned wells over the next 15 years—or bring them back into production. The agreement requires the company to submit a \$7 million performance bond to cover the costs of plugging. In 2018, the company plugged 41 wells across its entire operating area.⁸³⁷
- March 5, 2019 – There are 30,000 abandoned oil wells in California, with 1,850 in Los Angeles County. The state is currently not required to report to the public on toxic air emissions from these wells before, during, or after they are plugged, even when idle wells are located within densely populated residential communities. The process of capping wells can itself release harmful gases. Legislation has been proposed to remediate this oversight.⁸³⁸
- February 21, 2019 – While preparing to mine over a natural gas storage field in Greene County, Pennsylvania, a coal company discovered dozens of undisclosed abandoned gas

⁸³⁷ Legere, L., & Litvak, A. (2019, March 11). Pa. strikes well-plugging deal with largest conventional oil and gas operator in Appalachia. *Pittsburgh Post-Gazette*. Retrieved from <https://www.post-gazette.com/business/powersource/2019/03/11/Diversified-Gas-and-Oil-abandoned-wells-plugging-settlement-Pennsylvania-DEP/stories/201903080130>

⁸³⁸ Scauzillo, S. (2019, March 5). What toxins are being emitted from LA County's abandoned oil wells? A lawmaker wants to find out. Retrieved from <https://www.sgvtribune.com/tag/california-legislature/>

wells at the site, according to a report by the *Pittsburgh Post-Gazette*. “Pennsylvania’s history of fossil fuel extraction, combined with modern operations harvesting coal, oil and gas at different depths, makes it a particularly thorny place to work underground.”⁸³⁹

- January 25, 2019 – Colorado Governor John Hickenlooper signed an executive order to force the “plugging, remediation and reclamation of all medium- and high-priority orphaned wells and orphaned sites.” There are roughly 55,000 oil and gas wells in Colorado. At least 260 are orphaned, which means that the well’s owner cannot be identified, usually because of bankruptcy. Inactive wells that are orphaned become the responsibility of the state.⁸⁴⁰
- December 21, 2018 – Most fracking operations take place in oil and gas fields with a long history of conventional drilling and therefore with many abandoned wells. The possibility of hydraulic fractures intercepting these old wells and opening a pathway for rapid vertical transport for fluids to the surface or to groundwater aquifers depends on multiple variables. A University of Goettingen-led team used modeling to explore the relevant factors that predict long-term flow and transport of fracking fluids into groundwater aquifers through a leaky, abandoned well. The results showed that wellbore integrity of the abandoned well and its distance from the fracking operation are the two most influential parameters determining the vertical transport of fracking fluid through an abandoned well. The most probable pathway of contaminant transport takes place outside the well casing. Hydraulic fracking fluid tends to spread laterally when sediment layers are permeable, decreasing upward movement of fluid and decreasing contamination distribution in the aquifer. When freshwater aquifers are shallow, the short-term probability of contamination is negligible even in the presence of a leaky, abandoned well. “Model results show that hydraulic fracturing fluid reaches the aquifer three years after production.”⁸⁴¹
- December 15, 2018 – A University of Vermont-led team explored the ability of various predictive models to forecast fluid migration from and through abandoned wells in Alberta, Canada. Although all the models “performed better than random guessing,” none of them perfectly predicted which wells would leak in part because of incomplete data. In Alberta, wells that do not leak at the time they are drilled are not retested until they are abandoned. Continuous monitoring of wells in a small area would allow the models to be retrained with more accurate information. Consistent with previous findings, the models

⁸³⁹ Legere, L. (2019, February 21). Pa. DEP threatened to shut down a gas storage field fearing risks to approaching coal mine. *Pittsburgh Post-Gazette*. Retrieved from <https://www.post-gazette.com/business/powersource/2019/02/21/coal-mine-natural-gas-storage-abandoned-wells-Pennsylvania-Equitrans-Consol/stories/201902200130>

⁸⁴⁰ Staver, A. (2019, January 25). Hickenlooper signs order to release the locations of orphan wells, sets deadline to cap them. *Denver Post*. Retrieved from <https://www.denverpost.com/2018/07/18/hickenlooper-executive-order-orphan-wells/>

⁸⁴¹ Taherdangkoo, R., Tatomir, A., Anighoro, T., & Sauter, M. (2019). Modeling fate and transport of hydraulic fracturing fluid in the presence of abandoned wells. *Journal of Contaminant Hydrology*, 221, 58-68. Advance online publication. doi: 10.1016/j.jconhyd.2018.12.003

did show that the most important features in predicting whether an abandoned well will leak is the deviation of the well from vertical and the year the well was constructed.⁸⁴²

- November 20, 2018 – An investigation by WPXI, an NBC-affiliated television station in Pittsburgh, reported that Pennsylvania lacks funds to locate, plug, and remediate all potentially dangerous abandoned wells in the state. “Overall the problems could cost the state close to \$4 billion, so it is responding to the most critical cases first.”⁸⁴³
- November 20, 2018 – There are an estimated 12,000 abandoned wells in West Virginia, of which 4,000 are orphaned and have no owners, according to a story in the *Charleston Gazette-Mail* that reported how gas companies are saving money by leaving depleted wells behind instead of plugging them.⁸⁴⁴
- September 5, 2018 – An investigation of abandoned wells on Native American lands in the San Juan Basin found that the Bureau of Land Management (BLM), responsible for monitoring oil and gas wells on most tribal lands, has routinely failed to require operators to file paperwork on abandoned wells, lacks a clear strategy for identifying them, and does not prioritize cleaning up or remediating them.⁸⁴⁵
- May 16, 2018 – The GAO reported to Congress that BLM needs to improve its oversight of abandoned oil and gas wells. Companies are supposed to provide bonds up front to cover the costs of plugging abandoned wells and reclaiming the sites, but if they don’t, or if the costs exceed expectations, BLM can be liable and taxpayers can shoulder the clean-up costs. “Reclamation costs and potential liabilities likely increased since 2010, but we couldn’t determine how much because BLM does not systematically track the data.” The GAO recommended that, among other things, the director of BLM should systematically track the actual costs that the agency incurs when reclaiming orphaned wells, the number of orphaned and abandoned wells over time, and the information needed to determine the agency’s potential liabilities. The BLM concurred with the GAO’s recommendations. There are roughly 94,000 oil and gas wells on federal lands overseen by BLM.⁸⁴⁶
- Dec 26, 2017 – In 1965, a blowout at a gas well in northeastern Netherlands caused the formation of quicksand, which swallowed up an entire drill rig. Eventually, the area was

⁸⁴² Montague, J. A., Pinder, G. F., & T. L. Watson. (2018). Predicting gas migration through existing oil and gas wells. *Environmental Geosciences*, 25(4), 121-132. doi: 10.1306/eg.01241817008

⁸⁴³ WPXI (2018, November 20). Abandoned oil wells hidden under thousands of local properties. Retrieved from <https://www.wpxi.com/news/top-stories/abandoned-oil-wells-hidden-under-thousands-of-local-properties/875732284>

⁸⁴⁴ Mishkin, K. (2018, November 20). Drilling companies avoiding responsibility to plug orphan wells, group says. *Charleston Gazette-Mail*. Retrieved from https://www.wvgazette.com/news/drilling-companies-avoiding-responsibility-to-plug-orphan-wells-group-says/article_c423997f-d011-5e8a-a54f-13e54d3c0985.html

⁸⁴⁵ Clarren, R. (2018, September 5). Idle oil, gas wells threaten Indian tribes while energy companies, regulators do little. *InvestigateWest*. Retrieved from <http://www.invw.org/2018/09/05/idle-oil-gas-wells-threaten-indian-tribes-while-energy-companies-and-regulators-do-little/>

⁸⁴⁶ U.S. Government Accountability Office. (2018, May 16). *Oil and Gas Wells: Bureau of Land Management Needs to Improve its Data and Oversight of Its Potential Liabilities*. GAO-18-250. Retrieved from <https://www.gao.gov/assets/700/691810.pdf>

turned into a park. More than 50 years later, a team of researchers discovered that the site is still leaking methane. They found in the groundwater high levels of methane with an isotopic composition that matched that of the gas reservoir. An analysis of groundwater flow conditions showed that this methane is not a remnant of the blowout but the result of ongoing leakage. “Combined, the data reveal the long-term impact that underground gas well blowouts may have on groundwater chemistry, as well as the important role of anaerobic oxidation in controlling the fate of dissolved methane.”^{847, 848}

- June 28, 2017 – *The Tyee* made public the results of an unreleased 2016 report by the Alberta Energy Regulator (AER) showing that 36 of 335 abandoned oil and gas wells that are located close to occupied buildings in urban areas of Alberta are leaking methane. Six abandoned wells were leaking at levels (10,000 ppm) that pose explosion risks and are considered life-threatening. (Natural background level is about 1.9 ppm.) Based on these findings, the report also estimated that 17,000 of 170,000 abandoned wells in rural Alberta were likely also leaking. The author of the unreleased report said in an interview with *The Tyee* that AER, a corporation that functions in part as a regulatory agency, does not have the capacity to evaluate the potential threat to public health and safety. “The expertise to assess the health risk of abandoned wells really doesn’t exist in house.”^{849, 850}
- March 27, 2017 – In an experimental study, Canadian researchers injected methane gas into a shallow sand aquifer over a 72-day period and monitored methane migration for eight months. After 72 days, they found that half of the methane had vented into the atmosphere and half remained in the groundwater, traveling laterally a greater distance than expected and degrading at a rate less than expected. “Our findings demonstrate that even small-volume releases of methane gas can cause extensive and persistent free phase and solute plumes.”^{851, 852}
- December 21, 2016 – *The Texas Tribune* investigated abandoned oil wells in Texas where the Texas Railroad Commission, which is charged with regulating the oil and gas industry, has tracked and mapped 6,628 unplugged, orphaned wells. The commission is struggling with a ballooning inventory of inactive, leaking wells and decreasing clean-up funds to deal with them. The most recent oil boom, involving horizontal drilling with fracking, added to the problem as drillers cut corners in the rush to bring oil to market.

⁸⁴⁷ Schout, G., Hartog, N., Hassanizadeh, S. M., & Griffioen, J. (2018). Impact of an historic underground gas well blowout on the current methane chemistry in a shallow groundwater system. *Proceedings of the National Academy of Sciences*, 115(2), 296-301. Advance online publication. doi: 10.1073/pnas.1711472115

⁸⁴⁸ Yirka, B. (2017, December 29). Methane still leaking from the ground at site of gas explosion decades ago. *Phys.org*. Retrieved from <https://phys.org/news/2017-12-methane-leaking-ground-site-gas.html>

⁸⁴⁹ Nikiforuk, A. (2017, June 28). Energy industry legacy: Hundreds of abandoned wells leaking methane in Alberta communities. *The Tyee*. Retrieved from <https://theyee.ca/News/2017/06/28/Energy-Industry-Legacy/>

⁸⁵⁰ Nikiforuk, A. (2017, July 4). Alberta failing on risk from leaking oil and gas wells, says expert. *The Tyee*. Retrieved from <https://theyee.ca/News/2017/07/04/Alberta-Failing-Leaking-Oil-Gas-Wells-Risk/>

⁸⁵¹ Cahill, A. G., Steelman, C. M., Forde, O., Kuloyo, O., Ruff, S. E., Mayer, B., . . . Parker, B. L. (2017). Mobility and persistence of methane in groundwater in a controlled-release field experiment. *Nature Geoscience*, 10, 289–294. doi: 10.1038/ngeo2919

⁸⁵² Nikiforuk, A. (2017, April 11). Methane leaks from energy wells affects groundwater, travels great distances, study confirms. *The Tyee*. Retrieved from <https://theyee.ca/News/2017/04/11/Methane-Leaks-from-Energy-Wells-Affects-Groundwater/>

“Just drill the well as fast as possible, because they were under such pressure to get cash flow going,” according to a geoscientist interviewed for the story who had recently retired as a groundwater advisor for the Railroad Commission.⁸⁵³

- November 14, 2016 – Methane emissions from abandoned wells vary widely, with a few high emitters responsible for a disproportionately large share of the problem. Using new field measurement and data mining techniques, a Stanford University-led team investigated gas leaks at 88 inactive wells in Pennsylvania in an attempt to identify the characteristics of these “super-emitters.” Their results showed that unplugged gas wells and wells located in coal areas had the highest methane flow rates. Well plugging does not always reduce methane emission, especially when the wells are vented. In many areas with extensive coal layers, decommissioning requirements for wells included mandatory venting. Using comprehensive databases, the team also estimated the number of abandoned wells in Pennsylvania to be between 470,000 and 750,000, considerably more than previous estimates of 300,000 to 500,000. The research team calculated that, all together, Pennsylvania’s abandoned wells contribute 5-8 percent of the state’s annual greenhouse gas emissions.^{854, 855}
- June 20, 2016 – Pennsylvania’s attorney general began reviewing regulations requiring drillers to document abandoned oil and gas wells within 1,000 feet of a new fracking site. According to a *Bloomberg* investigation, “This puts Pennsylvania among states such as California, Texas, Ohio, Wyoming and Colorado confronting the environmentally catastrophic legacy of booms as fracking and home development expand over former drilling sites. As the number of fracked wells increases, so does the chance they might interact with lost wells.” As noted by *Bloomberg*, state databases document only about 10 percent of the nation’s 2.6 million abandoned oil and gas wells; the whereabouts of the vast majority are unknown. Current efforts in Pennsylvania to increase documentation on the location and status of inactive wells rely on “citizen scientists” equipped with GPS and methane sniffers, as well as home and farm-owners living on top of abandoned wells. Over a period of three decades, PA DEP has located and plugged only about 3,000 abandoned wells.⁸⁵⁶
- May 30, 2016 – New developments of houses, schools, and shopping centers are being built over abandoned oil and gas wells, according to a report by Wyoming Public Media. In most states there is no requirement for homeowners to be notified about abandoned

⁸⁵³ Malewitz, J. (2016, December 21). Abandoned Texas oil wells seen as “ticking time bombs” of contamination. *Texas Tribune*. Retrieved from <https://www.texastribune.org/2016/12/21/texas-abandoned-oil-wells-seen-ticking-time-bombs/>

⁸⁵⁴ Kang, M., Christian, S., Celia, M. A., Mauzerall, D. L., Bill, M., Miller, A. R., . . . Jackson, R. B. (2016). Identification and characterization of high methane-emitting abandoned oil and gas wells. *Proceedings of the National Academy of Sciences*, 113(48), 13636-13641. doi: 10.1073/pnas.1605913113

⁸⁵⁵ Than, K. (2016, November 14). Stanford study of abandoned oil and gas wells reveals new ways of identifying and fixing the worst methane emitters. *Stanford News*. Retrieved from <https://news.stanford.edu/2016/11/14/study-abandoned-oil-gas-wells-reveals-new-ways-fixing-worst-methane-emitters/>

⁸⁵⁶ Oldham, J. (2016, June 20). In the birthplace of U.S. oil, methane gas is leaking everywhere. *Bloomberg*. Retrieved from <http://www.bloomberg.com/news/articles/2016-06-20/in-the-birthplace-of-u-s-oil-methane-gas-is-leaking-everywhere>

wells on their properties, and these wells are not systematically monitored for leaks, nor are their locations well mapped. A builder who worked in the oil and gas industry for decades and suffered cardiac arrest when methane from an abandoned well he was inadvertently working atop exploded, said that there were “no signs” that a well was there.⁸⁵⁷

- January 26, 2016 – Researchers tested soil methane levels at 102 United Kingdom decommissioned oil and gas wells between 8 and 79 years old. Thirty percent of the wells had methane at the soil surface that was significantly higher than their control samples in nearby fields. Thirty-nine percent of well sites had significantly lower surface soil methane than their respective controls. Researchers suggested several explanations for the latter results, including replaced soils.⁸⁵⁸
- October 20, 2015 – Abandoned oil and gas wells near fracking sites can be conduits for methane escape that is not currently being measured, according to University of Vermont researchers. Fractures in the surrounding rock may connect to existing unused oil and gas wells in the area during fracking processes, thus providing a pathway for methane to migrate to the surface. The study used a mathematical model based on the large part of southern New York State underlain by the Marcellus Shale, incorporating “the depth of a new fracturing well, the vertical growth of induced fractures, and the depths and locations of existing nearby wells.” The researchers concluded the probability that new fracking-induced fractures would connect to a pre-existing well to be .03 percent to 3 percent. Density of nearby abandoned wells was the largest factor, and researchers pointed out the continuing problem of undocumented abandoned wells.⁸⁵⁹ As noted in an accompanying press release, probabilities are likely much higher: “Industry-sponsored information made public since the paper was published vastly increased assumptions about the area impacted by a set of six to eight fracking wells known as a well pad – to two square miles – increasing the probabilities cited in the paper by a factor of 10 or more.”⁸⁶⁰
- July 9, 2015 – As part of an extensive, peer-reviewed assessment of fracking in California, the California Council on Science and Technology identified leakage through failed, inactive wells as a known mechanism for fracking-related water contamination in other states, including Texas and Ohio, and said that it is not known whether abandoned wells in California likewise function as conduits for groundwater contamination and gas leakage. In California, there are more inactive than active wells. Of the state’s nearly one-quarter million oil and gas wells, more than half (116,000) have been plugged and abandoned, while another 1,800 inactive wells are “buried” with only an approximate

⁸⁵⁷ Editor. (2016, May 30). Danger below? New properties hide abandoned oil and gas wells. *Wyoming Public Media*. Retrieved from <http://wyomingpublicmedia.org/post/hidden-abandoned-dangerous-old-gas-and-oil-wells-neighborhoods>

⁸⁵⁸ Boothroyd, I. M., Almond, S., Qassim, S. M., Worrall, F., & Davies, R. J. (2016). Fugitive emissions of methane from abandoned, decommissioned oil and gas wells. *Science of the Total Environment*, 547, 461-469. doi: 10.1016/j.scitotenv.2015.12.096

⁸⁵⁹ Montague, J. A., & Pinder, J. F. (2015). Potential of hydraulically induced fractures to communicate with existing wellbores. *Water Resources Research*, 51, 8303–8315. doi: 10.1002/2014WR016771

⁸⁶⁰ Newswise. (2015, October 20). Dirty pipeline: Methane from fracking sites can flow to abandoned wells, new study shows. *Newswise*. Retrieved from <http://www.newswise.com/articles/view/641581/>

location known. The locations of another 338 old wells are entirely unknown. California also has 110 orphaned wells, that is, abandoned wells with no owners. Most of California's abandoned wells (53 percent) are located in Kern County.⁸⁶¹

- May 11, 2015 – *CBC News* reported that falling gas and oil prices have prompted many smaller companies to abandon their operations in Alberta, Canada, leaving the provincial government to close down and dismantle their wells. In the past year alone, the number of orphaned wells in Alberta increased from 162 to 702. At the current rate of work, deconstructing the inventory of wells abandoned just in the past year alone will be a 20-year task.⁸⁶²
- April 27, 2015 – In a peer-reviewed study, researchers with the U.S. Fish and Wildlife Service documented 5,002 wells located on National Wildlife Refuge System units, in addition to 1,339 miles of pipeline. Almost half of the wells were inactive, while one-third were active and the remainder either plugged and abandoned or with status unknown. Highlighting the impacts of leaks, spills, and routine operation and maintenance on wildlife conservation efforts, the authors called for regular on-site ecological assessments, improved efforts to plug inactive wells and restore inactive well sites, and a “consolidated and robust regulatory framework” to protect the public's interests.⁸⁶³
- March 24, 2015 – Analyzing data from 42 abandoned oil and gas wells in western Pennsylvania, a Princeton and Stanford team documented a wide range of leakage potentials. As a group, gas wells have higher permeability than oil wells. Among gas wells, methane flow rates are positively correlated with permeability. Subterranean temperatures and temperatures, along with well depth, are all variables that can influence leakage potentials of abandoned wells. The leakage potential of wells drilled prior to 1960 is moderate to high, and plugged wells, as well as unplugged wells, can leak. The authors note that cement plugs are imperfect barriers that can develop defects that allow fluids to flow through gaps between the plug and surrounding hole, through pores or fissures within the plug itself, or directly through cracks in the well casing.⁸⁶⁴
- December 8, 2014 – A Princeton University team found that abandoned oil and gas wells in Pennsylvania, left over from prior decades of conventional drilling, leak significantly more methane than previously thought. Between 300,000 and 500,000 abandoned oil and gas wells are located in Pennsylvania, and many go unchecked and unmonitored for

⁸⁶¹ Stringfellow, W. T., Cooley H., Varadharajan, C., Heberger, M., Reagan, M. T., Domen, J.K., . . . Houseworth, J. E. (2015, July 9). Volume II, Chapter 2: Impacts of well stimulation on water resources. In: *An Independent Scientific Assessment of Well Stimulation in California*. California Council on Science and Technology, Sacramento, CA. Retrieved from <http://ccst.us/publications/2015/vol-II-chapter-2.pdf>

⁸⁶² Johnson, T. (2015, May 11). Alberta sees huge spike in abandoned oil and gas wells. *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/calgary/alberta-sees-huge-spike-in-abandoned-oil-and-gas-wells-1.3032434>

⁸⁶³ Ramirez Jr., P., & Mosley, S. B. (2015). Oil and gas wells and pipelines on U.S. wildlife refuges: Challenges for managers. *PLoS ONE*, *10*(4). doi: 10.1371/journal.pone.0124085

⁸⁶⁴ Kang, M., Baik, E., Miller, A. R., Bandilla, K. W., & Celia, M. A. (2015). Effective permeabilities of abandoned oil and gas wells: analysis of data from Pennsylvania. *Environmental Science & Technology*, *49*(7). doi: 10.1021/acs.est.5b00132

leaks. Nearly three-quarters are unplugged. Based on direct measurements of methane flow from 19 such wells, most of which were a half century old or older, the researchers estimated that the methane leaks from abandoned wells alone could account for between 4 and 7 percent of human-caused methane emissions in the state. Based on these measurements of positive methane flow from decades-old wells, the authors concluded that cumulative emissions from these abandoned wells “may be significantly larger than the cumulative leakage associated with oil and gas production, which has a shorter lifetime of operation.” Further, methane flow rates from plugged wells measured in this study were not consistently lower than unplugged wells and indeed were sometimes higher, even though wells are plugged for the precise purpose of limiting the escape of gases. The authors noted that an estimated three million abandoned oil and gas wells are scattered across the United States and likely represent “the second largest potential contribution to total US methane emissions above US Environmental Protection Agency estimates.” In the United States, no regulatory requirements for monitoring methane leaks from abandoned wells exist.^{865, 866}

- December 1, 2013 – An analysis of reports from the NYS DEC found that three-quarters of the state’s abandoned oil and gas wells were never plugged. New York State has approximately 48,000 such wells; many of their locations remain unknown.⁸⁶⁷
- Aug. 4, 2011 – A report from the EPA to Congress in 1987—and discovered by the *New York Times*—concluded that abandoned natural gas wells may have served as a pathway for hydraulic fracturing fluids to migrate underground from a shale gas well to a water well in West Virginia. In noting that the water well was polluted due to hydraulic fracturing and that such contamination was “illustrative” of contamination from oil and natural gas drilling, the report suggested that additional cases of groundwater contamination from hydraulic fracturing may exist.⁸⁶⁸
- April 4, 2011 – *ProPublica* reported that abandoned wells have caused problems across the nation including contamination of drinking water in Colorado, Kentucky, Michigan, New York, Texas, and other states. *ProPublica* also found that a draft report from the Pennsylvania DEP described a 2008 incident in Pennsylvania in which a person died in an explosion triggered by lighting a candle in a bathroom after natural gas had seeped into a septic system from an abandoned well. The same draft report documented at least two dozen additional cases in which gas leaked from old wells, and three in which gas

⁸⁶⁵ Kang, M., Kanno, C. M., Reid, M. C., Zhang, X., Mauzerall, D. L., Celia, M. A., . . . Onstott, T. C. (2014). Direct measurements of methane emissions from abandoned oil and gas wells in Pennsylvania. *Proceedings of the National Academy of Sciences*. Advance online publication. doi: 10.1073/pnas.1408315111

⁸⁶⁶ Magill, B. (2014, June 19). Derelict oil wells may be major methane emitters. *Climate Central*. Retrieved from <http://www.climatecentral.org/news/abandoned-oil-wells-methane-emissions-17575>

⁸⁶⁷ Bishop, R. E. (2014). Historical analysis of oil and gas well plugging in New York: Is the regulatory system working? *New Solutions: A Journal of Environmental and Occupational Health Policy*, 21, 103-116. Retrieved from <http://baywood.metapress.com/media/16ut607yqg1yrw9ydad3/contributions/b/0/4/7/b047j34r87552325.pdf>

⁸⁶⁸ Urbina, I. (2011, August 4). A tainted water well, and concern there may be more. *The New York Times*. Retrieved from <http://www.nytimes.com/2011/08/04/us/04natgas.html>

from new wells migrated into old wells, seeping into water supplies and requiring the evacuation of homes.⁸⁶⁹

- May 20, 2010 – The British Columbia Oil and Gas Commission issued a safety advisory after hydraulic fracturing caused a large “kick,” or unintentional entry of fluid or gas, into a nearby gas well. The commission reported that it knew of 18 incidents in British Columbia and one in Western Alberta in which hydraulic fractures had entered nearby gas wells. “Large kicks resulted in volumes up to 80 cubic meters [about 100 cubic yards] of fluids produced to surface. Invading fluids have included water, carbon dioxide, nitrogen, sand, drilling mud, other stimulation fluids and small amounts of gas.” These cases occurred in horizontal wells with a distance between wellbores of up to 2,300 feet. The Commission wrote, “It is recommended that operators cooperate through notifications and monitoring of all drilling and completion operations where fracturing takes place within 1000m [3,280 feet] of well bores existing or currently being drilled.” Such communication between active wells raises the potential that similar communication can occur between active wells and abandoned wells.⁸⁷⁰
- 2010 – The NYS DEC cautioned that “abandoned wells can leak oil, gas and/or brine; underground leaks may go undiscovered for years. These fluids can contaminate ground and surface water, kill vegetation, and cause public safety and health problems.” As the agency reported, “DEC has at least partial records on 40,000 wells, but estimates that over 75,000 oil and gas wells have been drilled in the State since the 1820s. Most of the wells date from before New York established a regulatory program. Many of these old wells were never properly plugged or were plugged using older techniques that were less reliable and long-lasting than modern methods.”⁸⁷¹ The agency published similar comments in 2008 and 2009.
- January 2009 – In a presentation before the Society of Petroleum Engineers, industry consultant Michael C. Vincent reported on evidence that fractures from hydraulically fractured wells can communicate with nearby oil and gas wells. In spite of numerous examples of fractures intersecting with adjacent wellbores, the industry is reluctant to publish reports documenting these cases because “such information could unnecessarily alarm regulators or adjacent leaseholders.” Vincent added, “Although computing tools have improved, as an industry we remain incapable of fully describing the complexity of the fracture, reservoir, and fluid flow regimes.” These findings raise the possibility that there could be similar communications between existing fracked wells that are fractured and abandoned wells and that operators cannot accurately predict how these will interact.⁸⁷²

⁸⁶⁹ Kusnetz, N. (2011, April 4). Danger in honeycomb of old wells. *Pittsburgh Post-Gazette*. Retrieved from <http://www.post-gazette.com/nation/2011/04/04/Danger-in-honeycomb-of-old-wells/stories/201104040149>

⁸⁷⁰ British Columbia Oil & Gas Commission. (2010, May 20). Safety advisory: Communication during fracture stimulation. Retrieved from <https://www.bcogc.ca/node/5806/download>

⁸⁷¹ New York State Department of Environmental Conservation. (2010). New York oil, gas and mineral resources 2010. Retrieved from http://www.dec.ny.gov/docs/materials_minerals_pdf/10anrpt1.pdf

⁸⁷² Vincent, M. C. (2009, January 19). Examining our assumptions – Have oversimplifications jeopardized our ability to design optimal fracture treatments? Lecture presented at Society of Petroleum Engineers hydraulic

- 2005 – M.K. Fisher, Vice President of Business Management at Pinnacle, a service of Halliburton that specializes in hydraulic fracturing, reported in an article published by the Society of Petroleum Engineers that a single fracture produced during a fracking operation in the Texas Barnett Shale had unexpectedly spread 2,500 feet laterally in two directions. He also described fractures in the Barnett Shale as “extremely complex.”⁸⁷³ These findings raise the possibility that well communication over very large distances could occur due to fractures that spread “unexpectedly.”
- October 1999 – The U.S. Department of Energy reported that there were approximately 2.5 million abandoned oil and gas wells in the U.S.⁸⁷⁴
- Early 1990s – An underground waste disposal well in McKean County, Pennsylvania, contaminated groundwater when the wastewater traveled up a nearby abandoned, unmapped, and unplugged oil well. Owners of private water wells that were contaminated by the incident eventually had to be connected to a public water system.⁸⁷⁵
- July 1989 – In the past, the investigative agency for Congress, the U.S. General Accounting Office (now the Government Accountability Office—GAO) studied oil and natural gas underground injection disposal wells and found serious cases of contamination. The agency reported that, in several cases, wastewater from oil and natural gas operations had migrated up into abandoned oil and natural gas wells, contaminating underground water supplies. The GAO found that “if these abandoned wells are not properly plugged—that is, sealed off—and have cracked casings, they can serve as pathways for injected brines [waste fluids from natural gas and oil drilling] to enter drinking water.... Because groundwater moves very slowly, any contaminants that enter it will remain concentrated for long periods of time, and cleanup, if it is technically feasible, can be prohibitively costly.”⁸⁷⁶
- December 1987 – The EPA submitted a report to Congress on oil and natural gas wastes in which the agency cautioned that abandoned wells must be plugged with cement in order to avoid “degradation” of ground and surface waters as a result of pressurized brine or injected waste from wastewater disposal wells migrating into to aquifers, rivers, or

fracturing technology conference in The Woodlands, Texas. Retrieved from <http://www.spe.org/dl/docs/2010/MikeVincent.pdf>

⁸⁷³ Fisher, M., Wright, C., Davidson, B., Steinsberger, N., Buckler, W., Goodwin, A., & Fielder, E. (2005). Integrating fracture-mapping technologies to improve stimulations in the Barnett Shale. *SPE Production & Facilities*, 20(2). doi: 10.2118/77441-PA

⁸⁷⁴ United States Department of Energy, Office of Fossil Energy. (1999, October 5). *Environmental benefits of advanced oil and gas exploration and production technology*. (Rep.). Retrieved from <http://www.netl.doe.gov/kmd/cds/disk25/oilandgas.pdf>

⁸⁷⁵ Hopey, D. (2012, January 3). Wastewater disposal wells under scrutiny following Irvin leak. *Pittsburgh Post-Gazette*. Retrieved from <http://www.post-gazette.com/news/environment/2012/01/03/Wastewater-disposal-wells-under-scrutiny-following-Irvin-leak.html>

⁸⁷⁶ United States Government Accountability Office. (1989, July 5). Drinking water: Safeguards are not preventing contamination from injected oil and gas wastes. Retrieved from <http://www.gao.gov/products/RCED-89-97>. (2, 4, Rep.).

streams.⁸⁷⁷ While the EPA did not address the potential for contamination through abandoned wells as a result of hydraulic fracturing, both hydraulic fracturing and underground injection disposal wells require underground injection of fluid under pressure, raising the potential that there is a similar risk of groundwater contamination when hydraulic fracturing occurs near abandoned wells.

- 1985 – In an investigation of 4,658 complaints due to oil and natural gas production, the Texas Department of Agriculture found that “when a water well is experiencing an oilfield pollution problem (typically, high chlorides), the pollution source is often difficult to track down. The source could be a leak in the casing of a disposal well, leakage behind the casing due to poor cement bond, old saltwater evaporation pits, or, most often, transport of contaminants through an *improperly plugged abandoned well*” (emphasis in original). The agency found more than a dozen confirmed or suspected cases in which pollutants had migrated up abandoned wells and contaminated groundwater. In one case, drilling wastewater migrated up an abandoned well a half mile away from where the wastewater was injected underground for disposal.⁸⁷⁸
- November 1978 – In a report later cited by the EPA in its 1987 report to Congress (cited above), the state of Illinois Environmental Protection Agency found that oil and natural gas wastes injected underground could migrate through abandoned oil and natural gas wells and contaminate groundwater. The agency wrote, “In old production areas, abandoned wells may pose a serious threat to ground water quality. Unplugged or improperly plugged wells provide possible vertical communication between saline and fresh water aquifers.”⁸⁷⁹

⁸⁷⁷ U.S. Environmental Protection Agency. (1987). *Report to Congress: Management of wastes from the exploration, development, and production of crude oil, natural gas, and geothermal energy* (III-47, Rep.). Retrieved from <http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=20012D4P.pdf>

⁸⁷⁸ Texas Department of Agriculture, Department of Natural Resources. (1985). *Agricultural land and water contamination: From injection wells, disposal pits, and abandoned wells used in oil and gas production* (pp. 5, 12-15). Austin, TX: Dept. of Agriculture, Office of Natural Resources.

⁸⁷⁹ Illinois Environmental Protection Agency, Water Quality Management Planning. (1978). *Illinois oil field brine disposal assessment* (pp. 44-45, Rep.).

Flood risks

Fracking exacerbates flood risks in two ways. First, massive land clearing and forest fragmentation that necessarily accompany well site preparation increase erosion, run-off, and risks for catastrophic flooding. The construction of access roads, easements for pipelines, and build-out of other related infrastructure further contribute to the problem. Compared to an acre of forest or meadow, an acre of land subject to fracking construction activity releases 1,000-2,000 times more sediment during rainstorms. In addition, in some cases, operators choose to site well pads on flood-prone areas in order to have easy access to water for fracking, to abide by setback requirements intended to keep well pads away from inhabited buildings, or to avoid productive agricultural areas.

Second, the vulnerability of fracking sites to flooding increases the known dangers of unconventional gas extraction, heightening the risks of contamination of soils and water supplies, the overflow or breaching of containment ponds, and the escape of chemicals and hazardous materials. During Hurricane Harvey flooding in Texas in 2017, Eagle Ford operators reported 31 spills at oil and gas wells, storage tanks, and pipelines. Rising sea levels, more powerful hurricanes, and increased storm surges in coastal areas, a consequence of climate change, are expected to represent an increasing threat to oil and gas infrastructure, especially along the Gulf coast. According to a 2018 study, natural gas processing plants in U.S. coastal areas are among the most vulnerable energy infrastructure to inundation by sea level rise.

- March 5, 2019 – In the aftermath of Hurricane Harvey, which brought record rainfall and widespread flooding to Houston and Galveston, the state of Texas and the U.S. Environmental Protection Agency (EPA) prohibited a National Aeronautics and Space Administration (NASA) plane “equipped with the world’s most sophisticated air samplers” to fly over chemical spills, fires, flooded storage tanks, damaged plants, and flooded Superfund sites. Instead, a single-prop plane was used by the EPA to gather information on about two dozen air pollutants, whereas the NASA jet could have analyzed more than 450. At the same time, the Texas governor began a seven-month suspension of state air pollution emissions rules. A subsequent investigation by the Associated Press and the *Houston Chronicle* showed there was “widespread, unreported pollution and environmental damage in the region. The team identified more than 100 storm-related toxic releases, including a cloud of hydrochloric acid that leaked from a damaged pipeline and a gasoline spill from an oil terminal that formed ‘a vapor cloud.’”⁸⁸⁰
- November 30, 2018 – According to the *Miami Herald*, a new Florida Power & Light gas plant, replacing an existing one, will be raised 11.5 feet “to protect from sea level rise, a growing threat caused by emissions from fossil fuel plants.” The region is expected to see 14 to 34 inches of sea level rise by 2062. Testimony at a public hearing, following an

⁸⁸⁰ Rust, S., & Sahagun, L. (2018, March 5). Post-Hurricane Harvey, NASA tried to fly a pollution-spotting plane over Houston. The EPA said no. *Los Angeles Times*. Retrieved from <https://www.latimes.com/local/california/la-me-nasa-jet-epa-hurricane-harvey-20190305-story.html>

outpouring of public opposition to the project, included objections to further investments in fossil fuel projects. “What will you tell residents when the last of their personal possessions wash out to sea and the plant that fuels that tide stands above them?”⁸⁸¹

- November 29, 2018 – Storm protections will not be coming nearly as quickly as the planned tens of billions of dollars in new natural gas processing and chemical facilities along the Texas gulf, explained a collaborative investigative article in the *Texas Tribune*. “Many of the proposed, under-construction or recently built facilities along the Texas Gulf are in areas that felt [Hurricane] Harvey’s bite.” Harvey dropped more rain than any storm on U.S. record and led to chemical spills, contaminant releases to the air, and explosions at oil, gas, and chemical facilities. “Extensive storm modeling by top Texas scientists has shown that if a hurricane hit near the southern end of Galveston Island outside Houston... storm surge would pour into the Port of Houston, dislodging thousands of storage tanks full of crude oil and hazardous chemicals.”⁸⁸²
- September 14, 2018 – In Beaver County, Pennsylvania, a landslide following heavy rains and flooding caused an explosion of a new section of Energy Transfer Partners' Revolution Pipeline one week after it was operational, according to an investigative piece in *Environmental Health News*. The explosion destroyed a house, other structures, and vehicles, and forced evacuations. A few months earlier, a TransCanada natural gas pipeline in Marshall County, West Virginia exploded due to landslide. In its recent permit application, Shell Pipeline Company identified 25 locations prone to landslides along the route of its proposed Falcon Ethane Pipeline through Pennsylvania, Ohio, and West Virginia.⁸⁸³
- September 11, 2018 – Pipeline construction guidelines are based on standards that do not account for recent changes in weather patterns, and flood risks are particularly exacerbated along the Mountain Valley Pipeline route, which passes through extraordinarily rugged terrain. In a mountainous area of Virginia, pipeline construction workers were compelled to rush preparations for catastrophic rain from Hurricane Florence in summer 2018 as the abnormally wet summer overcame efforts to prevent runoff and erosion.⁸⁸⁴

⁸⁸¹ Harris, A., & Gross, S. J. (2018, November 30). FPL to build new fossil fuel plant — and elevate it 11 feet to protect from sea rise. *Miami Herald*. Retrieved from <https://www.miamiherald.com/news/local/community/broward/article222435610.html?fbclid=IwAR3mbqV7WBYvpGOzmLpbz1R6q1gxZQJzwXQ84fmx0RBocfyG93M6bsZGws>

⁸⁸² Hopkins, J. S., & Collier, K. (2018, November 29). Surge of oil and gas flowing to Texas coastline triggers building boom, tensions. *Texas Tribune*. Retrieved from <https://www.texastribune.org/2018/11/29/oil-and-gas-surge-texas-coastline-triggers-building-boom-tensions/>

⁸⁸³ Marusic, K. (2018, September 14). 25 zones along the proposed Shell Falcon Pipeline are at risk of explosions due to landslides. *Environmental Health News*. Retrieved from <https://www.ehn.org/here-are-the-25-zones-along-the-proposed-shell-falcon-pipeline-at-risk-of-explosions-due-to-landslides-2604629860.html>

⁸⁸⁴ Schneider, G. S. (2018, September 11). Hurricane could devastate Virginia pipeline project that is already struggling with changing weather. *Washington Post*. Retrieved from https://www.washingtonpost.com/local/virginia-politics/hurricane-could-devastate-virginia-pipeline-project-that-is-already-struggling-with-changing-weather/2018/09/11/572d0ef8-b5cf-11e8-94eb-3bd52dfe917b_story.html?noredirect=on&utm_term=.194bc781a7df&wpisrc=nl_buzz&wpm=1

- August 22, 2018 –The state of Texas sought at least \$12 billion, nearly all of it coming from public funds, to build a nearly 60-mile “spine” of concrete seawalls, earthen barriers, floating gates, and steel levees on the Texas Gulf Coast. This region is home to one of the world’s largest concentrations of petrochemical facilities, including most of Texas’ 30 refineries. Facilities that would be protected by this project include those owned by the Saudi-controlled Motiva, Chevron, DuPont, and others. Scaled back from earlier proposals, the current one focused on refineries, according to the Associated Press.⁸⁸⁵
- April 28, 2018 – In their assessment of coastal energy infrastructure at risk along the Gulf Coast, scholars at Louisiana State University concluded that natural gas processing plants in the United States are particularly vulnerable to inundation by sea level rise compared to other energy infrastructure, with up to eight percent of natural gas processing capacity at risk. Tidal flooding is known to be an ancillary effect of sea level rise. Hence, apart from sea level rise itself, “storm surges and flooding from extreme weather-related events often increase the current exposure of these facilities to near-term damage.”⁸⁸⁶ Fifteen natural gas processing plants were in the potential inundation zones of the study’s various sea level rise scenarios, with nine plants projected to be inundated under all three scenarios.
- December 29, 2017 – Flooding was a central theme in an internationally focused review of energy critical infrastructures at risk from climate change. Potential flood impacts on oil and gas infrastructure take many forms: storm surge flooding damaging aboveground fuel storage tanks; flood-related soil erosion exposing buried underground oil and gas pipelines; and inundation of oil refineries. The authors noted that as climate change “leads to an increase in atmospheric moisture content, the likelihood of extreme precipitation and the risk of flooding increase with associated physical impacts” on infrastructure such as power plants and gas pipelines.⁸⁸⁷
- September 15, 2017 – Hurricane Harvey and its resulting flooding affected various parts of metropolitan Houston’s vast oil and gas operations, as well as the Eagle Ford shale region of South Texas. *Reuters* reviewed company reports to the U.S. Coast Guard on the various releases of petrochemicals around the time of Harvey’s hit and subsequent flooding. In addition to more than 22,000 barrels of crude oil, gasoline, diesel, drilling wastewater, and petrochemicals spilled from refineries, storage terminals, and other facilities in the days after the storm, 27 million cubic feet (765,000 cubic meters) of natural gas was released.⁸⁸⁸ Pipeline operators are required to report oil and gas, but not

⁸⁸⁵ Weissert, W. (2018, August 22). Big oil asks government to protect it from climate change. *Associated Press*. Retrieved from <https://apnews.com/4adc5a2a2e6b45df953ebc6b63d171>

⁸⁸⁶ Dismukes, D.E., & Narra, S. (2018) Sea-level rise and coastal inundation: A case study of the Gulf Coast energy infrastructure. *Natural Resources*, 9, 150-174. doi: 10.4236/nr.2018.94010

⁸⁸⁷ Mikellidou, C. V., Shakou, L. M., Boustras, G., & Dimopoulos, C. (2018). Energy critical infrastructures at risk from climate change: A state of the art review. *Safety Science*, 110, 110-120. Advance online publication. doi: 10.1016/j.ssci.2017.12.022

⁸⁸⁸ Flitter, E., & Valdmanis, R. (2017, September 15). Oil and chemical spills from Hurricane Harvey big, but dwarfed by Katrina. *Reuters.com*. Retrieved from <https://www.reuters.com/article/us-storm-harvey-spills/oil-and-chemical-spills-from-hurricane-harvey-big-but-dwarfed-by-katrina-idUSKCN1BQ1E8>

drilling wastewater, spills to the Texas Railroad Commission. An environmental organization retrieved and listed this data, finding 31 spills at oil and gas wells, storage tanks, and pipelines during the hurricane's flooding. The group notes that though the data contains many "produced water" spills, they are likely underreported since they are not mandatory.⁸⁸⁹ More than half the fracking rigs running in the region were estimated to have shut down. "Given that much of oil and gas activity occurs in areas only accessible via dirt roads, the heavy rainfall usually makes the movement of trucks and supplies much more difficult...The trucking and rail of sand, chemicals, and personnel to the well site will all take more time given the likely nasty condition of many Eagle Ford access roads," according to an energy analyst.⁸⁹⁰

- May 25, 2016 – The removal of photos of flood-related oil spills on a Texas state-run website appears to be an effort to hide visuals that "don't portray the energy business in a flattering light," according to the *El Paso Times* Editorial Board. The photos revealed potential environmental damage caused by flooding at fracking sites.⁸⁹¹ As earlier reported by the *El Paso Times*, many of the photos shot during Texas' recent floods "show swamped wastewater ponds at fracking sites, presumably allowing wastewater to escape into the environment—and potentially into drinking-water supplies."⁸⁹²
- May 1, 2016 – Spring floods across Texas inundated oil wells and fracking sites, tipped over storage tanks, and flushed crude oil and fracking chemicals into rivers, as documented in an Associated Press story that referenced dozens of aerial photographs showing flooded production sites along the Sabine River on the Texas-Louisiana border. (The photographs were later removed from direct public access; see above.) Past president of the American Public Health Association Walter Tsou, MD, called the situation "a potential disaster."⁸⁹³
- June 12, 2015 – At the beginning of 2015, after a month of record-breaking rainfall, Fish and Wildlife Service officials at the Hagerman National Wildlife Refuge in Texas found that floodwaters flowing through oil production well pads in the refuge had inundated dozens of jackpumps, pipelines, and other oil and gas infrastructure, leaving bubbling, oily water and a gassy stench. In 1989, the U.S. Government Accountability Office (GAO) called for "bold action" to address fossil fuel production activities incompatible

⁸⁸⁹ Environment Texas. (2017, September 12). *Report: Environmental and health concerns about oil and gas spills after Hurricane Harvey*. Retrieved from <https://environmenttexas.org/sites/environment/files/reports/Harvey%20Oil%20Gas%20Spills%20-%20Env%20TX%20-%209.22.17.pdf>

⁸⁹⁰ Wethe, D. (2017, August 31). Harvey's floods could delay 10% of U.S. fracking: Analyst. *Bloomberg L.P.* Retrieved from <https://www.bloomberg.com/news/articles/2017-08-31/harvey-s-floods-could-delay-10-percent-of-u-s-fracking-analyst>

⁸⁹¹ *El Paso Times* Editorial Board. (2016, May 25). Editorial: Hiding bad news from Texans. *El Paso Times*. Retrieved from <http://www.elpasotimes.com/story/opinion/editorials/2016/05/25/editorial-hiding-bad-news-texans/84937054/>

⁸⁹² Schladen, M. (2016, April 30). Flooding sweeps oil, chemicals into rivers. *El Paso Times*. Retrieved from <http://www.elpasotimes.com/story/news/2016/04/30/flooding-sweeps-oil-chemicals-into-rivers/83671348/>

⁸⁹³ Siron, C. (2016, May 1). Texas floods washing fracking chemicals, crude oil into rivers. *Dallas Morning News*. Retrieved from <http://thescoopblog.dallasnews.com/2016/05/texas-floods-washing-fracking-chemicals-crude-oil-into-rivers.html/>

with the mission of the refuge system. Subsequent reforms have been exceedingly slow, according to a report from *Greenwire*. In most cases, the Fish and Wildlife Service does not know how much fossil fuel is produced or spilled on refuges, and remediation efforts are inadequate. Severe weather events are expected to increase in frequency and severity as climate change progresses, amplifying flood related concerns.⁸⁹⁴

- June 20, 2014 – The *Coloradoan* reported that Noble Energy storage tanks damaged by spring flooding in Colorado dumped 7,500 gallons of crude oil, fracking chemicals, and fracking wastewater into the Cache la Poudre River, which is both a National Heritage area and a habitat for Colorado’s only self-sustaining population of wild trout. Recent high river flows had undercut the bank where the oil tank was located, which caused the tank to drop and break a valve.⁸⁹⁵
- March 2014 – An extraordinary flood that struck the Front Range of Colorado killed ten people, forced the evacuation of 18,000 more, destroyed more than 1,850 homes, and damaged roads, bridges, and farmland throughout the state. More than 2,650 oil and gas wells and associated facilities were also affected, with 1,614 wells lying directly within the flood impact zone. Many of these storm-damaged facilities and storage tanks leaked uncontrollably. In a later accounting, Matt Lepore, Director of the Colorado Oil and Gas Conservation Commission, estimated the flooding had resulted in the release to the environment of 48,250 gallons of oil or condensate and 43,479 gallons of fracking wastewater from 50 different spill sites across the state. In Colorado, more than 20,850 oil and gas wells lie within 500 feet of a river, stream, or other drainage. According to Director Lepore, setback requirements that keep drilling and fracking operations away from residential areas inadvertently encourage operators to drill in unoccupied floodplains. At the same time, oil and gas operators prefer locations close to supplies of water for use in fracking. These twin factors result in a clustering of drilling and fracking operations in low-lying areas prone to catastrophic flooding.⁸⁹⁶
- 2004-2013 – In at least six of the last ten years (2004, 2005, 2006, 2009, 2011, and 2013), several counties targeted for shale gas drilling in New York State have experienced serious flooding. These include the counties of Albany, Broome, Cattaraugus, Chautauqua, Chenango, Delaware, Erie, Greene, Madison, Orange, Otsego, Schoharie, Sullivan and Ulster. In at least five of the past 10 years (2004, 2005, 2006, 2009 and 2011), floods have exceeded 100-year levels in at least some of the counties.^{897, 898, 899, 900, 901, 902, 903}

⁸⁹⁴ Hiar, C. (2015, June 12). Wildlife refuges: Floods expose weakness in FWS's oil and gas oversight. *E&E Publishing*. Retrieved from <http://www.eenews.net/stories/1060020169>

⁸⁹⁵ Handy, R. (2014, June 20). Crude oil spills into Poudre near Windsor. *Coloradoan*. Retrieved from <http://www.coloradoan.com/story/news/local/2014/06/20/crude-oil-spills-poudre-near-windsor/11161379/>

⁸⁹⁶ Lepore, M. (2014, March). “Lessons Learned” in the front range flood of September 2013: a staff report to the commissioners of the Colorado Oil and Gas Conservation Commission. Retrieved from http://cogcc.state.co.us/Announcements/Hot_Topics/Flood2013/FinalStaffReportLessonsLearned20140314.pdf

⁸⁹⁷ Brooks, L. T. (2005). *Flood of September 18-19, 2004 in the upper Delaware River basin, New York* (Rep.). United States Geological Survey. Retrieved from <http://ny.water.usgs.gov/pubs/of/of051166/>

⁸⁹⁸ Suro, T. P., & Firda, G. D. (2006). *Flood of April 2-3, 2005, Neversink River basin, New York* (Rep.). United States Geological Survey. Retrieved from <http://pubs.usgs.gov/of/2006/1319/>

- February 7, 2013 – In its 2012 annual report to investors, oil and gas drilling company Noble Energy stated, “Our operations are subject to hazards and risks inherent in the drilling, production and transportation of crude oil and natural gas, including ... flooding which could affect our operations in low-lying areas such as the Marcellus Shale.”⁹⁰⁴
- September 7, 2011 – The New York State Department of Environmental Conservation’s (NYS DEC) draft shale gas drilling plan recommended that drilling be prohibited within 100-year floodplains but acknowledged that many areas in the Delaware and Susquehanna River basins that were affected by flooding in 2004 and 2006 were located outside of officially designated flood zones.⁹⁰⁵ In 2004, 2005, 2006, 2009, and 2011, flooding in New York exceeded 100-year levels in at least some of the counties where drilling and fracking may occur.
- 1992 – In its Generic Environmental Impact Statement (GEIS) for oil and natural gas drilling, which was predicated on conventional drilling, the NYS DEC raised concerns that storage tanks holding drilling wastewater, spent hydraulic fracturing fluid, or other contaminants could be damaged by flooding and leak. At the time, the GEIS called for at least some of these tanks to be properly secured.⁹⁰⁶ Shale gas extraction via horizontal fracking would require many more storage tanks for fracking fluids and wastewater than conventional drilling operations anticipated in 1992 when the agency estimated that oil and gas wells in the state would each require 20,000-80,000 gallons of fracking fluid.⁹⁰⁷ As of 2011, the agency anticipated that high volume, horizontally fracked shale gas wells

⁸⁹⁹ Suro, T. P., Firda, G. D., & Szabo, C. O. (2009). *Flood of June 26–29, 2006, Mohawk, Delaware and Susquehanna River basins, New York* (Rep.). United States Geological Survey. Retrieved from <http://pubs.usgs.gov/of/2009/1063/pdf/ofr2009-1063.pdf>

⁹⁰⁰ Szabo, C. O., Coon, W. F., & Nizio, T. A. (2010). *Flash floods of August 10, 2009, in the villages of Gowanda and Silver Creek, New York* (Rep.). United States Geological Survey. Retrieved from <http://pubs.usgs.gov/sir/2010/5259/pdf/SIR%202010-5259.pdf>

⁹⁰¹ Szabo, L. (2011, September 8). *Remnants of Tropical Storm Lee cause record flooding in the Susquehanna River basin* (Rep.). United States Geological Survey. Retrieved from <http://ny.water.usgs.gov/leeindex.html>

⁹⁰² Giordano, S. (2013, January 29). Several eastern counties in central New York under water after heavy flooding. *Syracuse Post-Standard*. Retrieved from http://www.syracuse.com/news/index.ssf/2013/06/several_eastern_counties_in_ce.html

⁹⁰³ New York State Department of Environmental Conservation. (2011). *Supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program, well permit issuance for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus shale and other low-permeability gas reservoirs* (2-32, 33, Rep.).

⁹⁰⁴ Noble Energy, Annual Report (Form 10-K) (Feb. 7, 2013) at 42.

⁹⁰⁵ New York State Department of Environmental Conservation. (2011). *Supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program, well permit issuance for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus shale and other low-permeability gas reservoirs* (ES-22, 2-32, 33, Rep.).

⁹⁰⁶ New York State Department of Environmental Conservation. (2011). *Supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program, well permit issuance for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus shale and other low-permeability gas reservoirs* (8-42, 8-43, 9-35, Rep.).

⁹⁰⁷ New York State Department of Environmental Conservation. (1992). *Generic environmental impact statement on the oil, gas and solution mining regulatory program* (Rep.). (9-26, Rep.). Retrieved from http://www.dec.ny.gov/docs/materials_minerals_pdf/dgeisv1ch8.pdf

in New York State would each require 2.4-7.8 million gallons of fluid—roughly 100 times the 1992 estimate.⁹⁰⁸

⁹⁰⁸ New York State Department of Environmental Conservation. (2011). *Supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program, well permit issuance for horizontal drilling and high-volume hydraulic fracturing to develop the Marcellus shale and other low-permeability gas reservoirs* (ES-8, Rep.).

Threats to agriculture, soil quality, and forests

Drilling and fracking operations pose risks to farming, soil, and forests. In California, fracking wastewater illegally injected into aquifers threatens crucial irrigation supplies to farmers in a time of severe drought. Fracking wastewater reused for irrigation and livestock watering in California's San Joaquin Valley may contain at least ten known or suspected chemical carcinogens, as well as over a dozen chemicals with no available toxicological data and many unidentified compounds currently classified as "trade secrets." Agricultural uses of wastewater, as well as flowback water spills, raise questions about direct exposure of affected soils, contamination of food crops via bioabsorption through plant roots, and impacts on livestock due to ingestion. Studies and case reports from across the country have highlighted instances of deaths, neurological disorders, aborted pregnancies, and stillbirths in farm animals that have come into contact with wastewater. Additionally, farmers have expressed concern that nearby fracking operations can hurt the perception of agricultural quality and invalidate value-added organic certification. Land use changes and transport of invasive species by drilling and fracking operations have led to documented ecological and monetary harm to soils, forests, and natural areas. In forested areas of Pennsylvania, drilling and fracking operations have greatly reduced canopy covers and thereby diminished the carbon storage capacity of photosynthesizing forest trees. Soil compaction in cleared areas is detrimental to new plant growth and encourages the growth of invasive species.

- September 15, 2018 – Drilling and fracking operations and their associated infrastructure removed a large volume forest canopy in the upper Susquehanna River basin of New York and Pennsylvania from 2006 to 2013. This loss can be considered permanent, according to U.S. Geological Survey (USGS) scientists. Using “lidar” (light detection and ranging) remote sensing technology, the research team assessed three-dimensional volumetric change of forest loss, as opposed to two-dimensional areal loss. Because trees capture carbon dioxide on the surfaces of their canopy leaves during photosynthesis, three-dimensional measurements allow for the assessment of the carbon storage capacity that is sacrificed to gas development via tree removal. The researchers found that a total of 991,326,760m³ of forest canopy was removed by oil and gas activities in the upper Susquehanna River watershed area studied. New York’s loss was “relatively low” because of the state’s fracking moratorium during the study period. The largest losses in forest volumes took place in the Pennsylvania counties of Lycoming, Tioga, Sullivan, Bradford, Wyoming, and Susquehanna. Although timber operations removed more canopy overall, that loss was concentrated in a smaller area.⁹⁰⁹
- September 7, 2018 – Cleared areas around fracking well pads in Pennsylvania state forests are subjected to soil compaction equivalent to that in parking lot construction, according to researchers quoted in a *StateImpact* article. Although not used once the well is in production, these cleared areas are not typically repaired or replanted. Further, this

⁹⁰⁹ Young, J., Maloney, K. O., Slonecker, E. T., & Milheim, L. E., & Siripoonsup, D. (2018). Canopy volume removal from oil and gas development activity in the upper Susquehanna River basin in Pennsylvania and New York (USA): An assessment using lidar data. *Journal of Environmental Management*, 222, 66-75. doi: 10.1016/j.jenvman.2018.05.041

level of compaction is detrimental to new plant growth as the soil has fewer pores to store water or gases needed for plant survival. Experimenting with repair for these areas, Penn State University soil scientist Patrick Drohan said, “A lot of our native species, especially the grasses, are very deeply rooted. So if they can get down through 20 inches of loosened soil they’re going to be able to develop really deep, nice root systems.” Though involved with these experiments and resulting step-by-step repair directions, the Pennsylvania Department of Conservation and Natural Resources is “not proposing to make any of these methods mandatory.”⁹¹⁰

- July 18, 2018 – A USGS study on the Colorado Plateau investigated vegetation cover at inactive well sites. Researchers found that on half of plugged and abandoned oil and gas well sites, the median vegetation cover after five years was 26 percent, while sites with high vegetation cover were dominated by invasive, non-native species. Using satellite-based Landsat time series analysis, the scientists looked at three to six years of vegetation regrowth at 365 well sites in Utah, Colorado, and New Mexico, drilled in 1985 or after and abandoned in 1997 or after. Vegetation recovery generally slowed over time and was related to moisture conditions year to year. Recovery was lower on abandoned well sites in shrublands or evergreen woodlands, which produced only about half the regrowth of well sites in grasslands. The grassland recovery, however, was dominated by invasive annuals such as cheatgrass and Russian thistle. There are currently over 26,000 abandoned and 63,000 active well pads on the Colorado Plateau.⁹¹¹
- July 17, 2018 – A simulation study that applied actual fracking wastewater to local soils in the Denver area investigated how fracking spills might affect the growth of crops. Spills of fracking wastewater resulted in metal contamination at environmentally relevant concentrations as well as a dramatic decrease in water infiltration rate in ways that could have “severe impact on crop production.”⁹¹² Many of the metals studied, including copper, lead, and iron, “met or approached water quality standards and could have important environmental and human health impacts.”
- April 13, 2018 – Grasslands and row crop habitats were most affected in a predictive modeling study of vegetation conversion and landscape fragmentation that would result from future drilling and associated well pad construction in the Eagle Ford Shale. The study, which used “energy production outlook” predictions, found that these impacts increased in spatial extent and magnitude as oil prices increased. The study anticipated that up to 83,000 wells would be drilled through the year 2045 and include as many as 45,500 well pads. In this scenario, between 26,485 and 70,623 hectares (65,446 to 174,513 acres) would undergo vegetative conversion. These results are consistent with findings from related studies. The authors cautioned that their model did not include

⁹¹⁰ Frazier, R. (2018, September 7). Bringing the forest back after shale gas. *StateImpact*. Retrieved from <https://stateimpact.npr.org/pennsylvania/2018/09/07/bringing-the-forest-back-after-shale-gas/>

⁹¹¹ Waller, E. K., Villarreal, M. L., Poitras, T. B., Nauman, T. W., & Duniway, M. C. (2018). Landsat time series analysis of fractional plant cover changes on abandoned energy development sites. *International Journal of Applied Earth Observation and Geoinformation*, 73, 407-419. doi: 10.1016/j.jag.2018.07.008

⁹¹² Oetjen, K., Blotvogel, J., Borch, T., Ranville, J. F., & Higgins, C. P. (2018). Simulation of a hydraulic fracturing wastewater surface spill on agricultural soil. *Science of the Total Environment*, 645, 229-234. doi: 10.1016/j.scitotenv.2018.07.043

future locations of associated infrastructure, such as surface water impoundments and compressor stations. If they were included, “doubling land-change results of this study... would result in a reasonable estimate of overall footprint of all hydrocarbon extractive infrastructure.”⁹¹³

- July 20, 2017 – Penn State University researchers identified a direct correlation between the spread of invasive, non-native plants in Pennsylvania's northern forests and specific aspects of fracking operations. Researchers surveyed 127 Marcellus Shale gas well pads and adjacent access roads in seven state forest districts in the Allegheny National Forest. The study “found that within less than a decade invasive non-native plants have spread to over half of the 127 well pads in our survey, and for the 85% of the pads that were less than 4 years old it occurred in a much shorter period of time.” Gravel shipments and mud on the tires and undercarriages of trucks carry and deposit seeds and propagules of invasive plants. “Given the fact that on average 1235 one-way truck trips delivering fracturing fluid and proppant are required to complete an unconventional well, the potential to transport invasive plant propagules is significant.”⁹¹⁴ “The spread of invasive non-native plants could have long-term negative consequences for the forest ecosystem in a region where the ubiquitous woods provide timbering revenue, wildlife habitat, and ecotourism, warns team member David Mortensen, professor of weed and applied plant ecology.”⁹¹⁵
- May 15, 2017 – By 2015, the annual ecological cost of fracking in the United States reached over \$272 million per year, according to a team of biologists from Hendrix College in Arkansas. They reached this value by estimating the impact of land-use changes on “ecosystem services,” the benefits that natural habitats provide to humans, such as carbon sequestration, flood mitigation, food security, ecotourism revenue, and genetic diversity. Authors considered this estimate to be conservative. In addition, they wrote, “[d]epending on future well-drilling rates, cumulative ecosystem services costs projected to the year 2040 range from US\$9.4 billion to US\$31.9 billion.” Their results showed, “that temperate grassland and deciduous forest are being disproportionately impacted by unconventional oil and gas development. Temperate grasslands are some of the most imperiled ecosystems in North America.” They found “considerable variation in ecosystem services costs between different plays, with Haynesville, Bakken/Three Forks, and Fayetteville showing the highest annual costs.”⁹¹⁶

⁹¹³ Wolaver, B. D., Pierre, J. P., Ikonnikova, S. A., Andrews, J. R., McDaid, G., Ryberg, W. A., . . . LaDuc, T. J. (2018). An improved approach for forecasting ecological impacts from future drilling in unconventional shale oil and gas plays. *Environmental Management*, 62(2), 323-333. doi: 10.1007/s00267-018-1042-5

⁹¹⁴ Barlow, K. M., Mortensen, D. A., Drohan, P. J., & Averill, K. M. (2017). Unconventional gas development facilitates plant invasions. *Journal of Environmental Management*, 202, 208e216. doi: 10.1016/j.jenvman.2017.07.005

⁹¹⁵ Mulhollem, J. (2017, July 20). Shale gas development spurring spread of invasive plants in Pa. forests. *PennState News*. Retrieved from <http://news.psu.edu/story/475225/2017/07/20/research/shale-gas-development-spurring-spread-invasive-plants-pa-forests>

⁹¹⁶ Moran, M. D., Taylor, N. T., Mullins, T. F., Sardar, S. S., & McClung, M. R. (2017). Land-use and ecosystem services costs of unconventional US oil and gas development. *Frontiers in Ecology and the Environment*, 15(5), 237–242. doi: 10.1002/fee.1492

- April 2, 2017 – Nearly four percent of “core forest” was lost within six years of shale gas development in Lycoming County, Pennsylvania, from 2010 to 2016. Pipelines were the largest contributor to the industry's spatial footprint and were identified as the major fragmenting feature. “Linear infrastructure” (pipelines and roads) led to 3.2 percent loss of core forest, whereas well pad infrastructure (well pad, water impoundment, compressor station, etc.) resulted in 0.9 percent loss of core forests. “Limiting loss of core forest and fragmentation is of particular importance in Pennsylvania and central Appalachia due to potential impacts to area sensitive species.”⁹¹⁷
- November 29, 2016 – A study by engineers and environmental scientists from China, the U.K., and the Republic of Korea investigated the impact of contaminated fracking flowback water on soil health, using soils from representative shale gas areas in China. They also performed a preliminary human health risk assessment of exposure to the arsenic found in such soils. The solutions they tested were representative of flowback water from various stages following a fracked well’s establishment, and their study found that the temporal change in the composition of these wastewaters “leads to different environmental implications.” They tested heavy metal mobility and bioaccessibility, finding that even though mobility was reduced by high ionic strength of flowback water, the metals maintained relatively high bioaccessibility. Soil toxicity moderately increased after a month “aging” with the flowback water treatment. Arsenic, one of the metals included in the testing, is a known human carcinogen and therefore the focus of the human health risk assessment. Results indicated “a low level of cancer risk through exposure via ingestion.”⁹¹⁸
- October 4, 2016 – A research team from Lawrence Berkeley National Laboratory, University of California Berkeley, and University of the Pacific released preliminary results from a first-ever hazard assessment of chemicals used in California oil drilling operations that reuse wastewater for livestock watering and other agricultural purposes in the San Joaquin Valley. This evaluation, compiled as a technical report by PSE Healthy Energy and Lawrence Berkeley National Laboratory, revealed that more than one-third of the 173 chemicals used are classified as trade secret and their identities are therefore unknown. Of the remainder, ten are classified as either carcinogenic or possibly carcinogenic in humans, 22 are classified by the state of California as toxic air contaminants, and 14 had no ecotoxicity or mammalian toxicity data available. “It is difficult or impossible to estimate risks to consumers, farmworkers or the environment,” the authors concluded, “when identification of chemical additives remains in trade secret form and/or lacks toxicity and environmental profile information.”⁹¹⁹

⁹¹⁷ Langlois, L. A., Drohan, P. J., & Brittingham, M. C. (2017). Linear infrastructure drives habitat conversion and forest fragmentation associated with Marcellus shale gas development in a forested landscape. *Journal of Environmental Management*, 197, 167-176. Retrieved from

<https://www.sciencedirect.com/science/article/pii/S0301479717302608?via%3Dihub>

⁹¹⁸ Chen, S. S., Suna Y., Tsang, D. C. W., Grahame, N. J. D., Ok, Y. S., Feng, Y., & Li, X.-D. (2016). Potential impact of flowback water from hydraulic fracturing on agricultural soil quality: Metal/metalloid bioaccessibility, Microtox bioassay, and enzyme activities. *Science of the Total Environment*, 579, 1419–1426. doi: 10.1016/j.scitotenv.2016.11.141

⁹¹⁹ Shonkoff, S. B. C., Stringfellow, W. T., & Domen, J. K. (2016, September). *Hazard assessment of chemicals additives used in oil field that reuse produced water for agricultural irrigation, livestock watering, and groundwater*

- June 1, 2016 – “Co-contaminant interaction effects” can occur when multiple chemicals are involved in spills of oil and gas wastewater on agricultural soils, according to a study by a Colorado State University research team. Through simulations, researchers analyzed how degradation was affected when combinations of three fracking-related organic chemicals spilled, alone or together: polyethylene glycol, a commonly used surfactant; glutaraldehyde, a biocide to prevent pipe corrosion from microbial activity; and polyacrylamide, a friction reducer. In addition to interactions between the chemicals, they analyzed the role of naturally occurring salts. Results showed that polyethylene glycol surfactants alone can break down in topsoil within 42–71 days, but, in the presence of the biocide glutaraldehyde or salt concentrations typical of fracking wastewater, their biodegradation was impeded or halted altogether. Authors emphasized that the interactions they studied account for only a fraction of the hundreds of fracking chemicals in use, but that their results “show a complex picture of co-contaminant fate and toxicity” that has, so far, been ignored in the regulatory process.⁹²⁰
- December 12, 2015 – A research team at the University of Aberdeen found high levels of selenium, molybdenum, and arsenic in rock samples collected from a region in northern England that has been targeted for fracking. The finding is important due to the possible risk that these toxic elements will be released into groundwater during shale gas operations. Selenium poisoning has occurred among Irish horses confined to pastures underlain by black shale. While small amounts of selenium are essential for metabolism, high levels (which, in the case of human consumption, is above 400 µg/day) are toxic. Possible consequences include neurotoxicity, cancer and diabetes.⁹²¹
- November 23, 2015 – Gas-related impacts on Pennsylvania farmers may include pipelines criss-crossing fields and forests, as well as jeopardization of organic certification, according to a report covering a State Agriculture Department spokesman’s presentation, on the Potter County government website. The spokesman said, “steps should be taken to steer this development in ways that diminish impact on soil quality and fragmentation.” “With trees and other vegetation being cleared from pipeline rights-of-way, he noted, it’s important for the acreage to be replanted with plant species that are beneficial to agriculture—pollinating plants, as an example.”⁹²²
- October 24, 2015 – More than 180 million gallons of wastewater from oil and gas operations spilled from 2009 to 2014, according to an Associated Press analysis of data

recharge in the San Joaquin Valley of California: Preliminary results. Retrieved from https://www.psehealthyenergy.org/wp-content/uploads/2017/04/Preliminary_Results_13267_Disclosures_FINAL-1.pdf

⁹²⁰ McLaughlin, M. C., Borch, T., & Blotvogel, J. (2016). Spills of hydraulic fracturing chemicals on agricultural topsoil: biodegradation, sorption, and co-contaminant interactions. *Environmental Science & Technology*, 50(11). doi: 10.1021/acs.est.6b00240

⁹²¹ Parnell, J., Brolly, C., Spinks, S., & Bowden, S. (2015). Selenium enrichment in Carboniferous Shales, Britain and Ireland: Problem or opportunity for shale gas extraction? *Applied Geochemistry*, 66, 82-87. doi: 10.1016/j.apgeochem.2015.12.008

⁹²² *Potter County Today*. (2015, November 23). Shale gas impact on agriculture ‘profound.’ Retrieved from <http://today.pottercountypa.net/shale-gas-impact-on-agriculture-profound/>

from leading oil- and gas-producing states (Texas, North Dakota, California, Alaska, Colorado, New Mexico, Oklahoma, Wyoming, Kansas, Utah and Montana). A *Dallas Morning News* report focused on how the resulting contamination of groundwater and soils has affected agricultural and ranching. In one case, wastewater from pits seeped beneath a cotton and nut farm near Bakersfield, California and forced the grower to remove 2,000 acres from production. In western Texas, pipeline failures and illegal dumping of frack waste contaminated ranches and pastures.⁹²³

- May 2, 2015 – The *Los Angeles Times* reported that farmers in Kern County, California purchased over 21 million gallons per day of treated oil field wastewater to use for crop irrigation. The article identified lingering questions about chemicals remaining after treatment and their potential impact both on the crops and those who consume them. Independent testing identified chemicals including acetone and methylene chloride, along with oil, in the treated irrigation water.⁹²⁴ Acetone and methylene chloride are powerful industrial solvents that are highly toxic to humans, and samples of the wastewater contained concentrations of both that were higher than those seen at oil spill disaster sites. (Chevron’s own report confirmed the presence of acetone, benzene, and xylene, though in lesser concentrations; Chevron did not appear to test for methylene chloride.⁹²⁵) Broader testing requirements involving chemicals covered under California’s new fracking disclosure regulations went into effect June 15, 2015.⁹²⁶
- April 24, 2015 – Unconventional technologies in gas and oil extraction facilitated the drilling of an average of 50,000 new fractured wells per year in North America over the past 15 years. An interdisciplinary study published in *Science* demonstrated that the accumulating land degradation has resulted in continent-wide impacts, as measured by the reduced amount of carbon absorbed by plants and accumulated as biomass. This is a robust metric of essential ecosystem services, such as food production, biodiversity, and wildlife habitat, and its loss “is likely long-lasting and potentially permanent.” The land area occupied by well pads, roads, and storage facilities built during this period is approximately three million hectares, roughly the land area of three Yellowstone National Parks. The authors concluded that new approaches to land use planning and policy are “necessary to achieve energy policies that minimize ecosystem service losses.”⁹²⁷

⁹²³ Flesher, J. (2015, October 24). Fatal flow: Brine from oil, gas drilling fouls land, kills wildlife at alarming rate. *Dallas Morning News*. Retrieved from <http://www.dallasnews.com/news/local-news/20151024-fatal-flow-brine-from-oil-gas-drilling-fouls-land-kills-wildlife-at-alarming-rate.ece>

⁹²⁴ Cart, J. (2015, May 2). Central Valley's growing concern: Crops raised with oil field water. *Los Angeles Times*. Retrieved from <http://www.latimes.com/local/california/la-me-drought-oil-water-20150503-story.html#page=1>

⁹²⁵ Amec Foster Wheeler Environment & Infrastructure, Inc. (2015, June 15). Technical report:

Reclaimed water impoundments sampling, Cawelo Water District Ponds, Kern River Oil Field, Kern County, California, Prepared for Chevron U.S.A. Inc. Retrieved from <https://drive.google.com/file/d/0B1ccgD60cwq7dWE5Y0c2ZDh5WnM/view>

⁹²⁶ Ross, D. (2015, June 19). Has our food been contaminated by Chevron's wastewater? *Truthout*. Retrieved from <http://www.truth-out.org/news/item/31470-has-our-food-been-contaminated-by-chevron-s-wastewater>

⁹²⁷ Allred, B. W., Kolby Smith, W., Tridwell, D., Haggerty, J. H., Running, S. W., Naugle, D. E., & Fuhlendorf, S. D. (2015). Ecosystem services lost to oil and gas in North America. *Science*, 348 (6233), 401-402. doi: 10.1126/science.aaa4785

- January 26, 2015 – Two Colorado scientists performed a detailed analysis of vegetative patterns—followed chronologically—over a selected group of well pads in Colorado managed by the U.S. Bureau of Land Management, including two undisturbed reference sites. They documented the disturbance of plant and soil systems linked to contemporary oil and gas well pad construction, and found that none of the oil and gas well pads included in the study returned to pre-drilling condition, even after 20-50 years. Full restoration may require decades of intensive effort.⁹²⁸
- October 14, 2014 – State documents obtained by the Center for Biological Diversity show that almost three billion gallons of fracking wastewater have been illegally dumped into central California aquifers that supply drinking water and farming irrigation. The California Water Board confirmed that several oil companies used at least nine of 11 injection wells that connect with high-quality water sources for disposal of fracking wastewater, which included high levels of arsenic, thallium, and nitrates. The California Division of Oil, Gas and Geothermal Resources has shut down 11 oil field injection wells and is scrutinizing almost 100 others for posing a “danger to life, health, property, and natural resources.” At least one farming company has sued oil producers in part for contaminating groundwater that farms use for irrigation.⁹²⁹
- September 6, 2014 – *Al Jazeera America* examined the challenges that North Dakota farmers are facing in light of wastewater spills from oil and gas development. Notably, in heavily drilled Bottineau County, some levels of chloride, from sites where an estimated 16,800-25,200 gallons of wastewater had seeped into the ground, were so high that they exceeded the levels measurable with the North Dakota Department of Health’s test strips. State records, testimonies from oil workers and various residents, and the decades-long failure of contaminated fields to produce crops indicate that wastewater spills are a significant hazard in the current fracking boom.⁹³⁰
- August 6, 2014 – The Pennsylvania Department of Environmental Protection (PA DEP) found that leaks of fracking wastewater from three impoundments contaminated soil and groundwater. The findings prompted the state to issue a violation and increase testing.⁹³¹
- August 5, 2014 – Michelle Bamberger, a veterinarian and researcher, and Robert Oswald, a professor of molecular medicine at Cornell University, published a book that describes their research into the impacts of drilling and fracking on agriculture and animal health. They detail results of 24 case studies from six gas drilling states, including follow-up on

⁹²⁸ Minnick, T. J., & Alward, R. D. (2015). Plant–soil feedbacks and the partial recovery of soil spatial patterns on abandoned well pads in a sagebrush shrubland. *Ecological Applications*, 25(1), 3-10. doi: 10.1890/13-1698.1

⁹²⁹ Dechert, S. (2014, October 14). Fracking wastewater spoils California drinking, farm supplies. *Clean Technica*. Retrieved from <http://cleantechnica.com/2014/10/14/fracking-wastewater-spoils-california-drinking-farm-supplies/>

⁹³⁰ Gottesdiener, L. (2014, September 6). In shadow of oil boom, North Dakota farmers fight contamination. *Al Jazeera America*. Retrieved from <http://america.aljazeera.com/articles/2014/9/6/north-dakota-wastewaterlegacy.html>

⁹³¹ Hopey, D. (2014, August 6). State: Fracking waste tainted groundwater, soil at three Washington County sites. *Pittsburgh Post-Gazette*. Retrieved from <http://www.post-gazette.com/local/washington/2014/08/06/Pa-finds-tainted-water-soil-at-three-Washington-County-shale-sites/stories/201408050198>

cases they previously published in the peer-reviewed literature, raising concerns about the effects of drilling and fracking on agriculture and the health of animals.⁹³²

- August 1, 2014 – At least 19,000 gallons of hydrochloric acid spilled during completion of a fracking well on an alfalfa farm in Kingfisher County, Oklahoma. The Oklahoma Corporation Commission reported concerns about rain pushing chemical runoff into a nearby creek that flows into the town of Hennessey’s water system. The responsible company, Blake Production, planned to pay for the alfalfa crop for six years. The landowner and a neighbor were pursuing litigation.⁹³³
- May 4, 2014 – In an analysis of state data from Colorado, the *Denver Post* reported that fracking related to oil and gas drilling is putting soil quality and farmlands at risk due to significant amounts of toxic fluids penetrating the soil. According to report, 578 spills were reported in 2013, which means that, on average in the state, a gallon of toxic liquid penetrates the ground every eight minutes. Colorado State University soil scientist Eugene Kelly, said that the overall impact of the oil and gas boom “is like a death sentence for soil.”⁹³⁴
- November 28, 2012 – In conjunction with the Food & Environment Reporting Network, *The Nation* reported that serious risks to agriculture caused by fracking are increasing across the country and linked these concerns to risks to human health.⁹³⁵
- January 2012 – A study of gas drilling’s impacts on human and animal health concluded that the drilling process may lead to health problems. The study reported and analyzed a number of case studies, including dead and sick animals in several states that had been exposed to drilling or hydraulic fracturing fluids, wastewater, or contaminated ground or surface water.⁹³⁶ The researchers cited 24 cases in six states where animals and their owners were potentially affected by gas drilling. In one case, a farmer separated 96 head of cattle into three areas, one along a creek where fracking wastewater was allegedly dumped and the remainder in fields without access to the contaminated creek; the farmer found that, of the 60 head exposed to the creek, 21 died and 16 failed to produce, whereas the unexposed cattle experienced no unusual health problems. In another case, a farmer reported that of 140 head of cattle exposed to fracking wastewater, about 70 died, and there was a high incidence of stillborn and stunted calves in the remaining cattle.⁹³⁷

⁹³² Bamberger, M., & Oswald, R. (2014). *The real cost of fracking: How America's shale gas boom is threatening our families, pets, and food*. Boston: Beacon Press.

⁹³³ Passoth, K. (2014, August 1). Major oil field spill in Kingfisher Co. *KOCO.com Oklahoma City*. Retrieved from <http://www.koco.com/news/major-oil-field-spill-in-kingfisher-county/27236612>

⁹³⁴ Finley, B. (2014, May 4). Colorado faces oil boom “death sentence” for soil, eyes microbe fix. *Denver Post*. Retrieved from http://www.denverpost.com/environment/ci_25692049/colorado-faces-oil-boom-death-sentence-soil-eyes

⁹³⁵ Royte, E. (2012, November 28). Fracking our food supply. *The Nation*. Retrieved from <http://www.thenation.com/article/171504/fracking-our-food-supply>

⁹³⁶ Bamberger, M., & Oswald, R. E. (2012). Impacts of gas drilling on human and animal health. *New Solutions: A Journal of Environmental and Occupational Health Policy*, 22(1), 51-77. doi: 10.2190/NS.22.1.e

⁹³⁷ Ramanujan, K. (2012, March 7). Study suggests hydrofracking is killing farm animals, pets. *Cornell Chronicle*. Retrieved from <http://www.news.cornell.edu/stories/2012/03/reproductive-problems-death-animals-exposed-fracking>

- January 2011 – U.S. Forest Service researchers reported dramatic negative effects on vegetation caused by the drilling and fracking of a natural gas well in an experimental forest in northeastern West Virginia. In June 2008, the researchers found browning of foliage near the well pad, a lack of ground foliage, and that many trees nearby had dropped their foliage. They attributed these impacts to the loss of control of the wellbore on May 29, 2008, which caused an aerial release of materials from the well. Trees showed no apparent symptoms the following summer. However, the researchers also found “dramatic impacts on vegetation” where drilling and fracking wastewater had been sprayed on the land as a disposal technique following completion of the well. Just after the spraying of approximately 60,000 gallons of wastewater at the first disposal site, the Forest Service researchers found 115 damaged trees and other evidence of harm. This figure grew to 147 trees almost a year later. At a second site, where about 20,000 gallons of wastewater was sprayed, the damage was less dramatic, yet the researchers still found “considerable leaf browning and mortality of young northern red oak seedlings.” The researchers concluded that the spraying of the drilling fluids resulted in an “extreme” dose of chlorides to the forest.⁹³⁸
- May 2010 – Pennsylvania’s Department of Agriculture quarantined 28 cows in Tioga County after the animals wandered through a spill of drilling wastewater and may have ingested some of it. The Department was concerned that beef eventually produced from the cows could be contaminated as a result of any exposure. In May 2011, only ten yearlings were still quarantined, but the farmer who owned the cows, Carol Johnson, told National Public Radio that of 17 calves born to the quarantined cows in the spring of 2011, only six survived, and many of the calves that were lost were stillborn. “They were born dead or extremely weak. It’s highly unusual,” she said, continuing, “I might lose one or two calves a year, but I don’t lose eight out of eleven.”⁹³⁹
- March 2010 – A Pennsylvania State Extension analysis of dairy farms in the state found a decline in the number of dairy cows in areas where fracking was prevalent. Pennsylvania counties that had both more than 10,000 dairy cows and more than 150 Marcellus Shale wells experienced a 16-percent decline in dairy cows between 2007 and 2010.⁹⁴⁰
- April 28, 2009 – Seventeen cows in Caddo Parish, Louisiana died within one hour after apparently ingesting hydraulic fracturing fluids spilled at a well that was being fractured. “It seemed obvious the cattle had died acutely from an ingested toxin that had drained

⁹³⁸ Adams, M. B., Edwards, P. J., Ford, W. M., Johnson, J. B., Schuler, T. M., Thomas-Van Gundy, M., & Wood, F. (2011, January). *Effects of development of a natural gas well and associated pipeline on the natural and scientific resources of the Fernow experimental forest*. United States Department of Agriculture, Forest Service. General Technical Report NRS-76. Retrieved from http://www.fs.fed.us/nrs/pubs/gtr/gtr_nrs76.pdf

⁹³⁹ Phillips, S. (2011, September 27). Burning questions: Quarantined cows give birth to dead calves. *StateImpact*. Retrieved from <http://stateimpact.npr.org/pennsylvania/2011/09/27/burning-questions-quarantined-cows-give-birth-to-dead-calves/>

⁹⁴⁰ Penn State Extension. (2010, March). *Pennsylvania dairy farms and Marcellus shale, 2007–2010* (Rep.). Retrieved from <http://cce.cornell.edu/EnergyClimateChange/NaturalGasDev/Documents/PA%20Dairy%20Farms%20and%20Marcellus%202007%20to%202010.pdf>

from the ‘fracking’ operation going on at the property,” Mike Barrington, a state veterinarian said in a document obtained from the state Department of Environmental Quality by the *Times-Picayune*.^{941, 942}

- August 1977 – A paper in the *Journal of Arboriculture* described how natural gas leaks in soil can damage plants and crops. The paper notes that vegetation dies in the vicinity of natural gas leaks. Due to the oxidation of methane by methane-consuming bacteria, gas leaks drive down the oxygen concentration to extremely low levels and cause carbon dioxide concentration to rise. The resulting low oxygen concentration is the greatest contributing factor in the death of trees and other vegetation near natural gas leaks.⁹⁴³

⁹⁴¹ Schleifstein, M. (2011, March 27). Haynesville natural gas field is the most productive in the U.S. *The Times-Picayune*. Retrieved from http://www.nola.com/politics/index.ssf/2011/03/haynesville_natural_gas_field.html

⁹⁴² KSLA. (2009, April 28). Cows in Caddo Parish fall dead near gas well. *KSLA News*. Retrieved from <http://www.ksla.com/Global/story.asp?S=10268585>

⁹⁴³ Davis, S. H., Jr. (1977). The effect of natural gas on trees and other vegetation. *Journal of Arboriculture*, 3(8), 153-154.

Threats to the climate system

Natural gas is not a climate-friendly fuel. Methane, which escapes from all parts of the natural gas extraction and distribution system, is a powerful greenhouse gas that traps 86 times more heat than carbon dioxide over a 20-year time frame. According to the best available evidence, fuel-switching that replaces coal with natural gas to generate electricity offers no clear climate benefits and likely represents a step backwards. As is now documented in many studies, fugitive methane emissions from U.S. drilling and fracking operations, storage, and ancillary infrastructure are higher than previously supposed. A significant proportion of these leaks are not preventable through engineering fixes. Indeed, some represent intentional venting during routine maintenance or during attempts to control pressure and prevent explosions during malfunctions. Venting takes place at all points along the supply chain, from well pads, pipelines, and compressor stations to liquefied natural gas (LNG) export terminals. A 2018 analysis of methane emissions from the U.S. oil and gas supply chain that used a combination of measurement methodologies found leakage rates 60 percent higher than reported by the U.S. Environmental Protection Agency (EPA) and concluded that natural gas is just as damaging as coal for the climate over a 20-year time frame. Collectively, a range of studies disprove the claim that natural gas is a transitional “bridge” fuel that can lower greenhouse gas emissions while renewable energy solutions are developed.

A sharp rise in global atmospheric methane concentrations began in 2007 and has accelerated since 2014. The causes for this spike are not yet fully understood and likely include both biogenic sources (livestock, agriculture, wetlands, landfills, forest fires) and fossil fuel sources. As both satellite and ground measurements reveal, U.S. methane emissions are responsible for 30-60 percent of the recent upsurge in global atmospheric methane concentrations. Most of this excess methane appears to represent fugitive emissions from U.S. oil and gas operations.

Many lines of evidence point to the important role of unconventional oil and gas extraction in driving greenhouse gas emissions upward. These include the atmospheric pattern of increased methane concentrations directly over intensively fracked areas of the United States; sharp upticks in global methane and co-occurring ethane levels that correspond to the advent of the U.S. fracking boom; and documentation of large pulses of methane released from storage facilities and other “super-emitting” sites. A major study from the National Aeronautics and Space Administration (NASA) in 2017 found that methane from biomass sources, such as fires, decreased over the time period 2001-2016 while fossil fuel sources of methane increased. Further, the widely touted claim that the U.S. fracking boom has contributed to recent declines in carbon dioxide emissions in the United States has been invalidated by research showing that almost all of the reductions in CO₂ emissions between 2007 and 2009 were the result of economic recession rather than coal-to-gas fuel switching. Other lines of research show that expanded use of natural gas impedes rather than encourages investments in, and deployment of, renewable energy infrastructure. In sum, fracking, as a major driver of rising methane emissions, is incompatible with climate stability and the goal of rapid decarbonization that it requires.

- March 12, 2019 – Using aircraft, a team of researchers from multiple universities and institutions estimated emissions from both coal mines and shale gas wells in southwestern Pennsylvania. For coal, their results largely aligned with EPA estimates. However, for natural gas wells, emissions were five times higher than EPA figures. Because the volume of gas extracted per well is higher than in other shale basins, production-scaled methane emissions were still comparatively low, with carbon dioxide emissions from combustion remaining the dominant source of greenhouse gas emissions.⁹⁴⁴
- March 7, 2019 – Methane is a very strong greenhouse gas, with 120 times the power to trap heat than an equivalent amount of carbon dioxide. However, methane persists in the atmosphere for an average of only 12.4 years whereas carbon dioxide can linger for a century or more. Using a combination of approaches, a London team assessed the contribution of natural gas extraction to future greenhouse gas emissions in the United States, taking into account timing as well as magnitude of emissions and changing prices. They found that methane emitted further into the future—and therefore closer to the year where climate stabilization needs to take place—has a disproportionately large bearing on the overall climate impact of drilling and fracking activities, with long-lived gas fields having the most effect. “A key finding of this study is that the environmental and economic consequences of emissions are likely to rise with the age of a field, thus exposing long-lived assets to the greatest potential losses....Overall, our results suggest that future cumulative greenhouse gas emissions from existing US [gas] fields have a significant short-medium climate impact.” The authors recommend carbon pricing as a strategy to shorten the lifetime of long-lived gas fields. They also report that 40 percent of carbon dioxide output from natural gas is directly related to drilling activities.⁹⁴⁵
- February 28, 2019 – Australia’s LNG export industry contributed significantly to rising carbon emissions from that country in the 12 months prior to September 2018, according to Australia’s National Greenhouse Gas Inventory. Emissions from power plants fell during this same time period as the result of a 31 percent jump in renewable energy serving eastern Australia. These declines, however, were more than offset by soaring increases in industrial and fugitive emissions from Australia’s LNG plants.⁹⁴⁶ LNG exports rose by one fifth in 2018.⁹⁴⁷ This jump represents the third consecutive year of

⁹⁴⁴ Barkley, Z. R., Lauvaux, T., Davis, K. J., Deng, A., Fried, A., Weibring, P., . . . Dickerson, R. R. (2018). Estimating methane emissions from underground coal and natural gas production in southwestern Pennsylvania. *Geophysical Research Letters*, 46, 4531-4540. doi: 10.1029/2019GL082131

⁹⁴⁵ Crow, D. J. G., Balcombe, P., Brandon, N., & Hawkes, A. D. (2019). Assessing the impact of future greenhouse gas emissions from natural gas production. *Science of the Total Environment*, 668, 1242-1258. doi: 10.1016/j.scitotenv.2019.03.048

⁹⁴⁶ Commonwealth of Australia Department of Environment and Energy. (2018). *Quarterly update of Australia’s National Greenhouse Gas Inventory: September 2018*. Retrieved from <https://www.environment.gov.au/climate-change/climate-science-data/greenhouse-gas-measurement/publications/quarterly-update-australias-national-greenhouse-gas-inventory-sept-2018>

⁹⁴⁷ Hannam, P. (2019, February 28). Annual emissions keep rising as gas jump counters power sector drop. *Sydney Morning Herald*. Retrieved from <https://www.smh.com.au/environment/climate-change/annual-emissions-keep-rising-as-gas-jump-counters-power-sector-drop-20190228-p510wu.html>

rising greenhouse gas emissions from Australia. The expansion in LNG production and export was identified as the major contributor to this trend.⁹⁴⁸

- February 27, 2019 – An international team investigated the climate and the public health harms attributable to fossil fuel combustion. Their global model estimated an avoidable excess mortality rate of 3.61 million deaths per year from air pollution alone. Air pollution also chemically reacts with dust to create aerosols that disrupt the hydrologic cycle and impede rainfall patterns. If fossil fuel burning ended, not only would deaths due to air pollution be avoided but additional lives would be saved as water and food security improved in densely populated areas of India, northern China, and central America. In sum, “a rapid phaseout of fossil fuel-related emissions and major reductions of other anthropogenic sources are needed to save millions of lives, restore aerosol-perturbed rainfall patterns, and limit global warming to 2 C°.”⁹⁴⁹
- February 12, 2019 – In southeastern Saskatchewan, Canada, conventional gas and oil drilling takes place side by side with unconventional drilling via fracking. In a first study of its kind, a St. Francis Xavier University research team directly compared methane emissions from both types of co-located wells. By conducting truck-based air sampling downwind from 645 conventional wells and 289 unconventional wells, the team found that 28 percent of conventional wells leaked methane compared to 32 percent of fracked wells. The bigger difference was in measures of mean emission intensities from the wells that were leaking. Leaking fracked wells emitted nearly three times as much methane (59 cubic meters of methane per day) as leaking conventional wells (20 cubic meters of methane per day). “Our results showed that unconventional sites in southeastern Saskatchewan emit about as often as nearby conventional sites, but with somewhat greater severity.”⁹⁵⁰
- February 5, 2019 – A team led by University of Maryland researchers conducted aircraft sampling in 2015 to assess leakage from drilling and fracking operations in the southwestern Marcellus Shale. Coalbeds were the likely source of more than 70 percent of the emitted methane. Of the methane that likely arose from shale gas wells, the estimated mean emission rate was 1.1 percent of the total natural gas extraction. These results were consistent with (but at the low end of) estimates determined by previous observational studies in this region. They indicate that the climate impact of natural gas combustion falls below that of coal. Nevertheless, the full range includes values up to 3.5

⁹⁴⁸ Cox, L., (2018, May 14). Gas boom fuels Australia’s third straight year of rising emissions. *Guardian*. Retrieved from <https://www.theguardian.com/environment/2018/may/14/gas-fuels-australias-third-straight-year-of-rising-emissions>

⁹⁴⁹ Lelieveld, J., Klingmüller, K., Pozzer, A., Burnett, R. T., Haines, A., & Ramanathan, V. (2019). Effects of fossil fuel and total anthropogenic emission removal on public health and climate. *Proceedings of the National Academy of Sciences*, 116(15), 7192-7197. doi: 10.1073/pnas.1819989116

⁹⁵⁰ Baillie, J., Risk, D., Atherton, E., O’Connell, E., Fougère, C., Bourlon, E., & MacKay, K. (2019). Methane emissions from conventional and unconventional oil and gas production sites in southeastern Saskatchewan, Canada. *Environmental Research Communications*, 1(1), 01003. doi: 1088/2515-7620/ab01f2

percent, which falls above the break-even point with coal over a 20-year time span.⁹⁵¹

- February 5, 2019 – Sampling air from remote locations all over the world, an international team of atmospheric scientists confirmed a sharp rise in global atmospheric methane. This spike began in 2007 and has accelerated since 2014. The causes for the increase are not fully understood. The research team also documented, over the same time period, a shift in the carbon isotope ratio, which may signal a shift in the relative proportions of emissions from different sources. (These various methane sources include, for example, gas leaks, microbes, livestock, landfills, biomass burning.) Alternatively—or additionally—it may signal a decline in the oxidative capacity of the atmosphere, which breaks apart methane molecules. A change in the rate of methane destruction can also change the carbon isotope ratio. Either way, a sharp, ongoing increase in global methane concentrations was not predicted by the future greenhouse gas scenarios that were incorporated into the targets of the Paris Agreement. If the current increase continues, the goals of that treaty could be out of reach. “There is now urgent need to reduce methane emissions, especially from the fossil fuel industry... anthropogenic methane emissions are relatively very large and thus offer attractive targets for rapid reduction, which are essential if the Paris Agreement aims are to be attained.”⁹⁵²
- February 4, 2019 – Permafrost is soil that remains frozen year-round. If it thaws, microbes turn the carbon contained in the soil into carbon dioxide and methane. Because such a vast amount of carbon is held in permafrost, warming Arctic temperatures may release a large pulse of climate-destabilizing methane and so trigger an uncontrolled positive feedback loop. A study by an international team looked at the fate of permafrost under different scenarios of greenhouse gas mitigation, including some in which no progress is made toward decreasing fossil fuel-based emissions and others in which the targets of the Paris Agreement are met. In their analysis, the team determined the highest level of natural methane emissions that can be released from the Arctic by 2100. This level is considerably lower than likely anthropogenic methane emission levels over the same time period, which indicates that human-made emissions can be reduced sufficiently to limit methane-causing climate warming by 2100 even if the permafrost undergoes an uncontrolled emission feedback—but only if a committed, global effort to reduce fossil fuel use takes place very soon.⁹⁵³ In a press release about this research, one of the authors of the study, Lena Höglund-Isaksson, said, “It is important to put the two estimates alongside each other to point out how important it is to urgently address methane emissions from human activities, in particular through a phase out of fossil fuels. It is important for everyone concerned about global warming to know that humans are the main source of methane emissions and that if we can control humans’ release of

⁹⁵¹ Ren, X., Hall, D. L., Vinciguerra, T., Benish, S. E., Stratton, P. R., Ahn, D., . . . Dickerson, R. R. (2019).

Methane emissions from the Marcellus Shale in Southwestern Pennsylvania and Northern West Virginia based on airborne measures. *Journal of Geophysical Research Atmospheres*, 124, 1862-1878. doi: 10.1029/2018JD029690

⁹⁵² Nisbet, E. G., Manning, M. R., Dlugokencky, E. J., Fisher, R. E., Lowry, D., Michel, S. E., . . . White, J. W. C. (2019). Very strong atmospheric methane growth in the four years 2014-2017: Implications for the Paris Agreement. *Global Biogeochemical Cycles*, 33(3), 318-342. doi: 10.1029/2018GB006009

⁹⁵³ Christensen, T. R., Arora, V. K., Gauss, M., Höglund-Isaksson, L., & Parmentier, F.-J. W. (2019). Tracing the climate signal: Mitigation of anthropogenic methane emissions can outweigh a large Arctic natural emission increase. *Scientific Reports*, 9, 1146. doi: 10.1038/s41598-018-37719-9

methane, the problem of methane release from the thawing Arctic tundra is likely to remain manageable.”⁹⁵⁴

- December 4, 2018 – Research firm Rystad Energy reported that gas flaring in the west Texas Permian Basin has doubled since 2017. Oil wells in the region pump out large volumes of associated natural gas. Without pipelines to bring the gas to burner tips, and in order to maintain the rapid pace of oil drilling, operators simply waste the gas—worth more than \$1 million per day—by burning it off in flare stacks. Flaring permits are limited to 45 days but are now routinely extended for up to six continuous months.⁹⁵⁵
- November 23, 2018 – In a report commissioned by the Obama administration in 2016, the U.S. Geological Survey (USGS) provided estimates on greenhouse gas emissions associated with the extraction and combustion of fossil fuels produced from federal lands. Between 2005 and 2014, fully one-quarter of all U.S. carbon emissions come from fossil fuels that were extracted from public lands. The report found that forests on federal lands can offset some of these emissions but only by 15 percent. Fossil fuels are extracted from public lands in 28 states with more than half the total carbon emissions coming from Wyoming.^{956, 957}
- October 29, 2018 – The Basin Methane Reconciliation Study was a large-scale field investigation that brought together more than 80 scientists from multiple institutions. They examined why different methods of accounting for methane emissions from natural gas drilling sites vary so widely across the United States. The study took place in 2015 in Arkansas’ Arkoma Basin and utilized both bottom-up and top-down approaches, which is to say, measurements were taken on the ground at selected facilities as well as in the atmosphere over the region, via aircraft. This type of concurrent dual analysis had never been attempted before. The study revealed spikes of high emissions that occur during daytime maintenance operations, as when, for example, liquids are being removed from a well and natural gas is freely vented into the air for the duration of that process. The high temporal variability and episodic nature of methane emissions likely explain the persistent gap between the two accounting methods and mean that researchers who attempt to determine how much methane is escaping from drilling and fracking operations require “detailed activity data, unfettered and unbiased site access, and time-resolved operations data.” This type of study necessarily requires cooperation with

⁹⁵⁴ International Institute for Applied Systems Analysis. (2019, February 6). Diffusing the methane bomb: We can still make a difference [Press release]. Retrieved from

<https://www.sciencedaily.com/releases/2019/02/190206104538.htm>

⁹⁵⁵ Blum, J. (2018, December 4). Permian Basin gas flaring has nearly doubled in a year. *Houston Chronicle*. Retrieved from <https://www.houstonchronicle.com/business/energy/article/Record-Permian-gas-flaring-has-nearly-doubled-in-13443024.php>

⁹⁵⁶ Merrill, M. D., Sleeter, B. M., Freeman, P. A., Liu, J., Warwick, P. D., & Reed, B. C. (2018). Federal lands greenhouse gas emissions and sequestration in the United States—Estimates for 2005–14. *U.S. Geological Survey Scientific Investigations Report 2018–5131*. doi: 10.3133/sir20185131

⁹⁵⁷ Aton, A. (2018, November 27). Fossil fuel extraction on public lands produces one quarter of U.S. emissions. *E&E News*. Retrieved from <https://www.scientificamerican.com/article/fossil-fuel-extraction-on-public-lands-produces-one-quarter-of-u-s-emissions/>

industry employees.⁹⁵⁸

- August 1, 2018 – The Groningen natural gas field in the northern Netherlands is one of Europe’s major gas fields where extraction, gas processing, and gas storage all take place. It is also a region with intensive agriculture and cattle operations. An international research team investigated methane emissions there with the intent of distinguishing between methane from fossil fuel sources and methane arising from livestock, wetlands, and agriculture. Using both ground and aircraft measurements, the researchers determined that emissions from oil and gas operations account for 20 percent of regional methane, with the remainder from biogenic sources. That figure for fossil fuel sources is, nevertheless, ten times higher than the 1.9 percent that was estimated by previous inventories. Ground-based measurements at extraction, processing, and storage sites found low emission rates compared to gas production facilities in the United States. Production volume was a poor predictor of emission rates. Even wells with no production still had emissions.⁹⁵⁹
- August 1, 2018 – California’s climate goals call for an 80 percent reduction in emissions by 2050. With this goal in mind, a Lawrence Berkeley National Laboratory team set out to estimate what fraction of California’s greenhouse gas emissions represent methane emissions from residential homes, including leakage from gas pipes, stovetops, combustion appliance pilot lights, and forced air furnaces. Total methane emissions from California homes represent 15 percent of the total emissions from the natural gas sector in California and represent two percent of the state’s total methane emissions, as calculated in the 2015 state inventory. The team also found that emissions from pilot lights constitute a significant fraction as do flames in domestic hot water heaters. “While methane emissions from houses are small compared to most sources, California’s ambitious goals...suggest value in testing and repairing obvious leaks in residential gas lines, modernizing combustion appliances to move away from pilot lights, and gradually increasing the use of non-fossil fuel energy sources for residential space and hot water heating and cooking.”⁹⁶⁰
- July 10, 2018 – In 2015, as part of a follow-up study, a research team used helicopters to measure methane emission patterns at 353 well pads in North Dakota’s Bakken Shale that had been surveyed in the same way in 2014. In the interim, 21 newly producing well pads were added to the sampling area. They found that the individual well pads that emitted methane in 2014 were far more likely to be still emitting in 2015 than would be expected by chance alone. The reasons for this persistent leaking were not identified but potentially

⁹⁵⁸ Vaughn, T. L., Bell, C. S., Pickering, C.K., Schwietzke, S., Heath, G. A., Pétron, G., ... & Nummedal, D. (2018). Temporal variability largely explains top-down/bottom-up difference in methane emission estimates from a natural gas production region. *Proceedings of the National Academy of Sciences*, 115(46), 11712-11717. doi: 10.1073/pnas.1805687115

⁹⁵⁹ Yacovitch, T. I., Neisinger, B., Herndon, S. C., Denier van der Gon, H., Jonkers, S., Hulskotte, J., . . . Zavala-Araiza, D. (2018). Methane emissions in the Netherlands: The Groningen field. *Elementa: Science of the Anthropocene*, 6(57). doi: 10.1525/elementa.308

⁹⁶⁰ Fischer, M. L., Chan, W. R., Jeong, S., & Zhu, Z. (2018). *Natural gas methane emissions from California homes*. California Energy Commission, CEC-500-2018-021. Retrieved from <https://www.energy.ca.gov/2018publications/CEC-500-2018-021/CEC-500-2018-021.pdf>

include tanks without vapor recovery systems, overpressurization, undersized flaring systems, stuck or clogged valves, and “poorly designed equipment.” Altogether, researchers quantified 33 plumes of methane and ethane arising from these well pads.⁹⁶¹

- June 21, 2018 – An analysis of methane leaks from the U.S. oil and gas supply chain found that natural gas is just as damaging as coal for the climate over a 20-year time frame. This study combined on-the-ground measurements of leaks at selected facilities (bottom-up methods) with data collected from the atmosphere via aircraft (top-down methods). Based on the results, the authors estimated that roughly 2.3 percent of all the natural gas extracted in the United States escapes into the air. This estimated level of leakage was 60 percent higher than the EPA’s estimate of 1.4 percent. The authors believe their emissions estimate is the more accurate because they used helicopters to capture episodic releases of large plumes of methane caused by “abnormal operating conditions” and “failure-prone systems” that were likely missed by the sampling methods used for EPA’s greenhouse gas inventory. Liquid storage tank hatches and vents were the source of most of acute incidents.⁹⁶²
- December 20, 2017 – A major study led by NASA researchers concluded. that fossil fuel sources are driving the sharp uptick in global atmospheric concentrations of methane since 2006. Using satellite measurements and isotopic analysis, the team showed that methane from biomass sources, such as fires, decreased over the time period 2001-2016 while fossil fuel sources of methane increased. These findings helped reconcile conflicting results from other previous studies.⁹⁶³
- October 17, 2017 – Using planes, an international team of researchers measured regional airborne methane and ethane emission rates from the Alberta oil and gas fields in Canada. They compared these results to emissions reported by the industries themselves, as part of an accounting system that requires operators to report flaring and venting volumes, and found large discrepancies. Based on the amounts of methane and ethane detected in the atmosphere above the oil and gas fields, the reported industry emissions in this region should be 2.5 ± 0.5 times higher. Such large discrepancies between actual methane emissions and industry-provided data represent a “reporting gap” and present a critical challenge when determining policy. Proposed regulations in Canada currently call for reducing methane emissions from Canadian fracking operations by 45 percent. However, these data indicate that most of the methane emissions from these operations arise from

⁹⁶¹ Englander, J. G., Brandt, A. R., Conley, S., Lyon, D. R., & Jackson, R. B. (2018). Aerial interyear comparison and quantification of methane emission persistence in the Bakken Formation of North Dakota, USA. *Environmental Science & Technology*, 52(15), 8946-8953. doi: 10.1021/acs.est.8b01665

⁹⁶² Alvarez, R. A., Zavala-Araiza, D., Lyon, D. R., Allen, D. T., Barkley, Z. R., Brandt, A. R., . . . Hamburg, S. P. (2018). Assessment of methane emissions from the U.S. oil and gas supply chain. *Science*, 361(6398): 186-188. doi: 10.1126/science.aar7204

⁹⁶³ Worden, J. R., Bloom, A. A., Pandey, S., Jiang, Z., Worden, H. M., Walker, T. W., . . . Röckmann, R. (2017). Reduced biomass burning emissions reconcile conflicting estimates of the post-2006 atmospheric methane budget. *Nature Communications*, 2227. doi: 10.1038/s41467-017-02246-0

fugitive leaks that are not being measured at all and/or from episodes of unreported venting.⁹⁶⁴

- July 18, 2017 – A team of 15 climate scientists led by James Hansen at Columbia University conducted a study on the growth rate of greenhouse gas climate forcing, which has accelerated by 20 percent in the past decade. (Climate forcing is the difference between the amount of the sun’s energy that is absorbed by the Earth and amount that radiates back into space.) The authors note that methane (CH₄) is the largest climate-forcing gas after carbon dioxide. With an atmospheric lifetime of only about ten years, “there is potential to reduce climate forcing rapidly if CH₄ sources are reduced.” However, “there is a danger of increased leakage with expanded shale gas extraction.” Noting that the speed of ice sheet melting and sea level rise are difficult to predict, the authors assert that targets for limiting global warming should aim to keep global temperatures close to the preindustrial Holocene range rather than allow them to rise to those found during the prior Eemian period, when sea levels were 6-9 meters higher than today. Such targets require immediate phase-out of fossil fuel emissions, along with profound changes in farming and forestry practices. A delay in taking these measures to minimize irreversible climate impacts means that the next generation will be required to undertake risky, expensive, large-scale CO₂ extraction practices, such as carbon capture. “If high fossil fuel emissions continue, a great burden will be placed on the young. . . . Continued high fossil fuel emissions unarguably sentences young people to either a massive, implausible cleanup or growing deleterious climate impacts or both.”⁹⁶⁵
- July 8, 2017 – An investigative report from the Inter Press Service News Agency examined the climate impacts of methane emissions from Mexico, which is sixth among the world’s nations in technically recoverable shale gas reserves (after China, Argentina, Algeria, the United States, and Canada). Mexico’s current energy policy, introduced in 2014, emphasizes the exploitation of shale gas using fracking. Using data from the state-owned energy company Petroleos Mexicanos (PEMEX), the Inter Press Service story documents that as of 2017, more than 900 wells, located in six of Mexico’s 32 states, have been drilled and fracked. High volumes of methane are emitted during venting, and methane emissions have been increasing sharply. In 2016, the total methane emissions from Mexico’s PEMEX Exploration and Production operations were 641,517 metric tons, 38 percent higher than the previous year. According to researcher Ramón Torres, of the National Autonomous University of Mexico, who is quoted in the story, “Current regulations are based on best practices, but the philosophy of environmental protection has been abandoned. Exploitation is deepening inequities in a negative way, such as environmental impact. It is irresponsible to auction reserves without a proper evaluation of environmental and social impacts.”⁹⁶⁶

⁹⁶⁴ Johnson, M. R., Tyner D. R., Conley, S., Schwietzke, S., & Zavala-Araiza, D. (2017). Comparisons of airborne measurements and inventory estimates of methane emissions in the Alberta upstream oil and gas sector. *Environmental Science & Technology*, 51(21), 13008–13017. doi: 10.1021/acs.est.7b03525

⁹⁶⁵ Hansen, J., Sato, M., Kharecha, P., von Schuckmann, K., Beerling, D. J., Cao, J. . . . Ruedy, R. (2017). Young people’s burden: Requirement of negative CO₂ emissions. *Earth System Dynamics*, 8, 577-616. doi: 10.5194/esd-8-577-2017

⁹⁶⁶ Godoy, E. (2017, July 8). Mexico’s methane emissions threaten the environment. *Inter Press Service News Agency*. Retrieved from <http://www.ipsnews.net/2017/07/mexicos-methane-emissions-threaten-environment/>

- June 19, 2017 – A study that measured methane emissions from various components of drilling and fracking equipment on well pads located in four different shale basins in Colorado, Utah, Arkansas, and Wyoming found widely varying results. In Colorado and Utah, a small percentage of well pads leaked the vast majority of methane, whereas leakage was more equitably distributed among wells in Wyoming. The research team also found variations that were dependent on oil/gas/water content as well as on the numbers of wells per well pad. In sum, emissions from well pads contributed significantly to basin-wide methane emissions but varied depending on location. [Note: the authors identify XTO Energy as a cost share partner in this study.]⁹⁶⁷
- April 18, 2017 – San Juan Basin in the four-corner region of Utah, Arizona, New Mexico, and Colorado, is one of the largest coal-bed methane producing regions in North America. Between 2003 and 2015, natural gas production declined, and yet, as revealed by atmospheric sampling from aircraft flying over the basin, methane emissions did not decrease during this same time period. These results confirm earlier findings from a satellite study that also showed no declines in regional methane concentrations in spite of significant declines in natural gas production. According to the authors, the likely explanation for the region’s persistent, elevated methane levels is increased oil drilling in the basin.⁹⁶⁸
- February 9, 2017 – Using ground-based monitoring methods, a team led by Drexel University researchers monitored a range of emissions, including methane, in two intensively drilled regions of the Marcellus Shale basin in Pennsylvania. The goal was to understand the concentrations and sources of relevant air pollutants that had previously been reported as impacts of drilling and fracking operations. Airborne methane concentrations were higher in southwestern Pennsylvania as compared to northeastern Pennsylvania. The authors conclude that urban-like levels of air pollutants in rural Pennsylvania are likely due to emissions from oil and gas operations in the Marcellus Shale basin.⁹⁶⁹
- January 9, 2017 – A modeling study found that short-lived greenhouse gases, such as methane, contribute to thermal expansion of the ocean over much longer time scales than their brief atmospheric lifetimes might otherwise predict. “Actions taken to reduce

⁹⁶⁷ Robertson, A. M., Edie, R., Snare, D., Soltis, J., Field, R. A., Burkhart, M. D., ... Murphy, S. M. (2017).

Variation in methane emission rates from well pads in four oil and gas basins with contrasting production volumes and compositions. *Environmental Science & Technology*, 51(15), 8832–8840. doi: 10.1021/acs.est.7b00571

⁹⁶⁸ Smith, M. L., Gvakharia, A., Kort, E. A., Sweeney, C., Conley, S. A., Faloon, I., ... Wolter, S. (2017). Airborne quantification of methane emissions over the four corners region. *Environmental Science & Technology*, 51(10), 5832–5837. doi: 10.1021/acs.est.6b06107

⁹⁶⁹ Goetz, J. D., Avery, A., Werden, B., Floerchinger, C., Fortner, E. C., Wormhoudt, J., . . . DeCarlo, P. F. (2017) Analysis of local-scale background concentrations of methane and other gas-phase species in the Marcellus Shale. *Elementa: Science of the Anthropocene*, 5(1). doi: <https://doi.org/10.1525/elementa.182>

emissions of short-lived gases could mitigate centuries of additional future sea-level rise.”⁹⁷⁰

- December 12, 2016 – As part of the interdisciplinary Global Carbon Project, a consortium of scientists undertook a meta-analysis that synthesizes many hundreds of individual studies in order to better understand the global methane cycle. Integrating atmospheric measurements with ground-based data, the researchers found more uncertainty in the emissions from natural sources than from human activities. For the 2003–2012 decade, global methane emissions were 558 teragrams per year (range of 540–568), with 60 percent of global methane emissions attributed to anthropogenic sources of all kinds and with a significant contribution (likely at least 39 percent) from oil and gas production operations.⁹⁷¹
- December 12, 2016 – An editorial published in *Environmental Research Letters* by an international team of scientists urges immediate attention to quantify and reduce methane emissions. “Unlike CO₂, atmospheric methane concentrations are rising faster than at any time in the past two decades and, since 2014, are now approaching the most greenhouse-gas-intensive scenarios.” The authors present methods of evaluating anthropogenic and biogenic sources of methane, as from agricultural practices and project future methane emissions.⁹⁷²
- November 8, 2016 – The government of Scotland released a report confirming that the pursuit of unconventional oil and gas extraction would make more difficult the nation’s goal of meeting its climate targets on greenhouse gas emissions.⁹⁷³
- November 1, 2016 – A life cycle analysis of greenhouse gas emissions from fracking operations in the Marcellus Shale region found that upstream activities associated with the use and transportation of chemicals, water, and sand mining contributed relatively lower emissions than downstream phases of the fracking process, which include gas combustion, methane leakage, venting, and flaring.⁹⁷⁴
- October 5, 2016 – A new inventory of worldwide methane emissions from various sources finds that methane emissions from the fossil fuel industry are 20-60 percent

⁹⁷⁰ Zickfeld, K., Solomon, S., & Gilford, D. M. (2017) Centuries of thermal sea-level rise due to anthropogenic emissions of short-lived greenhouse gases. *Proceedings of the National Academy of Sciences*, 114(4), 657-662. doi: 10.1073/pnas.1612066114

⁹⁷¹ Saunio, M., Bousquet, P., Poulter, B., Peregon, A., Ciais, P., Canadell, J. G., ... Zhu, Q. (2016). The global methane budget 2000–2012. *Earth System Science Data*, 8, 697–751. doi: 10.5194/essd-8-697-2016

⁹⁷² Saunio, M., Jackson, R. B., Bousquet, P., Poulter, B., & Canadell, J.G. (2016). The growing role of methane in anthropogenic climate change. *Environmental Research Letters*, 11, 120207. doi: 10.1088/1748-9326/11/12/120207

⁹⁷³ Committee on Climate Change. (2016, November 8). Scottish unconventional oil and gas: Compatibility with Scottish greenhouse gas emissions targets. Retrieved from <http://www.gov.scot/Resource/0050/00509324.pdf>

⁹⁷⁴ Sibrizzi, C., & LaPuma, P. (2016). An assessment of life cycle greenhouse gas emissions associated with the use of water, sand, and chemicals in shale gas production of the Pennsylvania Marcellus Shale. *Journal of Environmental Health*, 79(4), 8-15. Retrieved from <https://www.neha.org/node/58673>

higher than previously thought.⁹⁷⁵ This discovery, based on isotopic fingerprinting of methane sources, has prompted researchers to call for revisions to current climate prediction models and for a renewed emphasis on reducing methane emissions as a necessary tool for combating climate change.⁹⁷⁶

- September 26, 2016 – In ratifying the Paris Climate Agreement, the United States pledged to reduce its greenhouse gas emissions 26-28 percent by 2025 as compared to 2005 levels. A research team from Lawrence Berkeley National Laboratory found that the United States is on track to miss this target, in large part because of soaring methane emissions.^{977, 978}
- September 12, 2016 – Using isotopic analysis and archived air samples collected from 1977 to 1998, as well as more contemporary data, a team of researchers from Oregon presented “strong evidence” that methane emissions from fossil fuel sectors were approximately constant in the 1980s and 1990s but then increased significantly between 2000 and 2009. Over the same time period, methane emissions from biomass burning, rice cultivation, and wetlands decreased. These results contradict the findings of earlier studies that used atmospheric ethane as a marker for methane and had concluded that fugitive fossil fuel emissions fell during much of that period. (More recent studies show that ethane emissions are increasing again.)^{979, 980, 981}
- July 11, 2016 – A group of 130 environmental and health organizations signed a formal complaint with the Inspector General of the U.S. Environmental Protection Agency (EPA) about a pivotal 2013 study that was published in the *Proceedings of the National Academies of Sciences* and which was led by University of Texas chemist David T. Allen. The letter accused Allen of “systemic fraud, waste, and abuse” for his reliance on an inaccurate measurement device that was known to underestimate methane levels.

⁹⁷⁵ Schwietzke, S., Sherwood, O. A., Bruhwiler, L. M. P., Miller, J. B., Etiope, G., Dlugokencky E. J., . . . Tans, P. P. (2016). Upward revision of global fossil fuel methane emissions based on isotope database. *Nature*, 538. 88-91. doi: 10.1038/nature19797

⁹⁷⁶ Vaughan, A. (2016, October 5). Fossil fuel industry’s methane emissions far higher than thought. *The Guardian*. Retrieved from <https://www.theguardian.com/environment/2016/oct/05/fossil-fuel-industrys-methane-emissions-far-higher-than-thought>

⁹⁷⁷ Greenblatt, J. R., & Wei, M. (2016). Assessment of the climate commitments and additional mitigation policies of the United States. *Nature Climate Change*, 6, 1090-93. doi: 10.1038/nclimate3125

⁹⁷⁸ Mooney, C. (2016, September 26). The U.S. is on course to miss its emissions goals, and one reason is methane. *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/energy-environment/wp/2016/09/26/the-u-s-is-on-course-to-miss-its-emissions-goals-and-one-reason-is-methane/?utm_term=.80df24676a21

⁹⁷⁹ Rice, A. L., Butenhoff, C. L., Teama, D. G., Röger, F. H., Khalil, M. A. K., & Rasmussen, R. A. (2016). Atmospheric methane isotopic record favors fossil sources flat in 1980s and 1990s with recent increase. *Proceedings of the National Academy of Sciences*, 113(39). 10791–10796. doi: 10.1073/pnas.1522923113

⁹⁸⁰ Harvey, C. (2016, September 13). Scientists may have solved a key mystery about the world’s methane emissions. *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/energy-environment/wp/2016/09/13/the-answer-to-the-global-methane-mystery-fossil-fuels-a-study-finds/?utm_term=.64a94b9abf4e

⁹⁸¹ von Kaenel, C. (2016, September 13). Debate rises over real source of higher methane emissions. *Scientific American*. Retrieved from <https://www.scientificamerican.com/article/debate-rises-over-real-source-of-higher-methane-emissions/>

Partially funded by the oil industry, Allen's study reported very low methane emission rates as part of a large survey of 190 drilling and fracking sites across the nation. That flawed study was influential, said complainants, in preventing EPA from recognizing the magnitude of methane leakage from drilling and fracking operations.⁹⁸² (See also the entry below for March 24, 2015.)

- June 17, 2016 – A comparative assessment of emerging methods for measuring methane emissions from different sources recommends combining analytic methods with chemical mass balance (CMB) methods. The CMB system is currently used in the Barnett Shale oil and gas production region in Texas as an approach to tracing methane emissions back to their sources.⁹⁸³
- May 25, 2016 – As part of the first field study to directly measure methane emissions from the heavily drilled Bakken Shale formation in northwestern North Dakota, a team led by atmospheric chemist Jeff Peischl at NOAA flew research aircraft over the region in May 2014. The researchers derived a methane emission rate of 275,000 tons of methane per year, which is similar to the rate of methane leakage in the Front Range area of Colorado but significantly lower than previous studies of the Bakken area that relied on satellite remote sensing data during an earlier time period (2006-2011). Analyzing the chemical composition of air samples, the NOAA team determined that almost all of the methane originated with oil and gas operations, rather than with natural or agricultural sources, and estimated a leakage rate of 4.2-8.4 percent.⁹⁸⁴ Scaled to production, this emission rate is slightly lower than that estimated by EPA in its recently revised inventory.^{985, 986} (See April 15, 2016 entry below.)
- April 15, 2016 – In its 21st annual greenhouse gas inventory, which includes 2014 data, the EPA increased its leakage assessment from oil and gas operations by 34 percent. For oil production alone, the EPA more than doubled its estimates of methane emissions. Further, in an admission that the agency had been historically underestimating methane leaks, the EPA also retroactively increased estimates of past emissions from the fossil

⁹⁸² Johnson, J. (2016, July 11). Pivotal study on methane leaks from U.S. oil and natural gas wells under fire. *Chemical & Engineering News*. Retrieved from <http://cen.acs.org/articles/94/i28/Pivotal-study-methane-leaks-US.html>

⁹⁸³ Allen, D. (2016). Attributing atmospheric methane to anthropogenic emission sources. *Accounts of Chemical Research*, 49, 1344–1350. doi: 10.1021/acs.accounts.6b00081

⁹⁸⁴ Peischl, J., Karion, A., Sweeney, C., Kort, E. A., Smith, M. L., Brandt, A. R., . . . Ryerson, T. B. (2016). Quantifying atmospheric methane emissions from oil and natural gas production in the Bakken shale region of North Dakota. *Journal of Geophysical Research: Atmospheres*, 121. doi: 10.1002/2015JD024631

⁹⁸⁵ National Oceanic and Atmospheric Administration. (2016, May 16). *North Dakota's Bakken oil and gas field leaking 275,000 tons of methane per year* [Press release]. Retrieved from <http://www.noaa.gov/news/north-dakota-s-bakken-oil-and-gas-field-leaking-275000-tons-of-methane-year>

⁹⁸⁶ MacPherson, J. (2016, May 11). A new study says the oil-producing region of North Dakota and Montana leaks 275,000 tons of methane annually. *U.S. News & World Report*. Retrieved from <http://www.usnews.com/news/science/articles/2016-05-11/study-bakken-oil-field-leaks-275-000-tons-of-methane-yearly>

fuel sector as expressed in prior inventories.^{987, 988} In an accompanying news release, the agency said, “Data on oil and gas show that methane emissions from the sector are higher than previously estimated. The oil and gas sector is the largest emitting-sector for methane and accounts for a third of total U.S. methane emissions.”⁹⁸⁹ Past EPA inventories had identified livestock as the number one source of U.S. methane. These annual inventories fulfill the EPA’s obligations under the United Nations Framework Convention on Climate Change, signed and ratified by the United States in 1992, and attempt to identify and quantify U.S. anthropogenic sources and sinks of greenhouse gases for the time period 1990 and forward. The upward revision in both past and current inventories is a reflection of changing methodologies for measuring methane leaks.⁹⁹⁰ Older methods included the incorporation of “bottom-up” data supplied by the oil and gas industry, without attention to high-emitting or super-emitting sources or possible sources of error introduced by flawed measuring equipment. In addition, the use of a Global Warming Potential multiplier of 25 for methane, which is based on a 100-year time horizon, rather than 86 for a 20-year time horizon, has come under sustained criticism given the urgency of the climate crisis.^{991, 992}

- April 7, 2016 – Since 2009, corresponding to the advent of the U.S. shale gas boom, North American ethane emissions have increased by 5 percent per year. This trend represents a reversal of a previous multi-decade decline (mid-1980s until the end of the 2000s) in the abundance of atmospheric ethane that had been attributed to the reduction of fugitive emissions from fossil fuel sources. These are the findings of an international research team, which analyzed remote sensing data gathered by the Network for the Detection of Atmospheric Composition Change at globally distributed ground-based sites. Ethane is a volatile organic compound (VOC) that readily reacts with nitrogen oxides in the presence of sunlight to create ground-level ozone (smog). Also a potent greenhouse gas, ethane is co-released along with methane from drilling and fracking sites. The source of two-thirds of the ethane in Earth’s atmosphere is leakage from natural gas wells and pipelines. Because ethane is co-emitted with methane and can serve as a marker for it, this documentation of a sharp, recent uptick in atmospheric ethane is part of a larger body of evidence suggesting that U.S. drilling and fracking operations are

⁹⁸⁷ U.S. Environmental Protection Agency. (2016, April 15). *Inventory of U.S. greenhouse gas emissions and sinks: 1990-2014*. Retrieved from <https://www.epa.gov/sites/production/files/2016-04/documents/us-ghg-inventory-2016-main-text.pdf>

⁹⁸⁸ Johnson, J. (2016, April 25). Oil, natural gas operations now top U.S. methane emitters. *Chemical & Engineering News*. Retrieved from <http://cen.acs.org/articles/94/i17/Oil-natural-gas-operations-top.html?type=paidArticleContent>

⁹⁸⁹ U.S. Environmental Protection Agency. (2016, April 15). EPA publishes 21st annual U.S. greenhouse gas inventory [Press release]. Retrieved from <https://www.epa.gov/newsreleases/epa-publishes-21st-annual-us-greenhouse-gas-inventory>

⁹⁹⁰ Mooney, C. (2016, April 15). The U.S. has been emitting a lot more methane than we thought, says EPA. *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/energy-environment/wp/2016/04/15/epa-issues-large-upward-revision-to-u-s-methane-emissions/?utm_term=.eca9c599ff09

⁹⁹¹ Sumner, T. (2016, April 14). EPA underestimates methane emissions. *ScienceNews*. Retrieved from <https://www.sciencenews.org/article/epa-underestimates-methane-emissions>

⁹⁹² Profeta, T. (2016, March 3). Study, EPA spotlight methane emissions from oil and gas industry. *National Geographic*. Retrieved from <http://voices.nationalgeographic.com/2016/03/03/study-epa-spotlight-methane-emissions-from-oil-and-gas-industry/>

driving up global methane levels.⁹⁹³ (See also entry dated June 13, 2016 in Air Pollution section].)

- April 5, 2016 – A research team using infrared cameras and helicopters demonstrated that between 1 and 14 percent of oil and gas well pads surveyed were high emitters of hydrocarbons and VOCs, with the greatest number observed in oil producing areas and in areas with horizontal drilling.⁹⁹⁴ While some emissions were intentional or part of routine maintenance operations, fugitive, unplanned releases (as from malfunctioning equipment) were also common, as were combustion emissions (as from flares and compressor engine exhaust). Tank vents and hatches were the origin of the vast majority (>90 percent) of detected large emission sources, deeply undercutting the assumption in the EPA’s Oil & Gas Emission Estimation Tool of 100 percent capture efficiency by tank control systems. While emissions tended to be higher during the first few months of well production, predicting which wells or other sources would become high emitters was not possible. The lead author, speaking to *InsideClimate News*, concluded that the work “really demonstrates the importance of things like continuous detection or frequent monitoring to find these high emission sites.”⁹⁹⁵
- March 10, 2016 – Attempting to explain a methane plateau between 1999 and 2006 within otherwise almost continuously increasing levels of atmospheric methane since the dawn of the industrial revolution, an international team of atmospheric scientists reconstructed the global history of methane and used isotopic carbon fingerprinting to parse the sources of its emission. Thermogenic emissions were assumed to result from fossil-fuel sources, while biogenic sources were assumed to arise from wetlands and agricultural operations. Based on a geographic distribution of methane revealed by remote sensing, the authors concluded that agricultural emissions, especially increases in livestock inventories and rice cultivation, were the most likely drivers of observed global methane increases from 2006 to 2014.⁹⁹⁶ These results stand in contrast to other contemporaneous and recent studies that have supplied evidence for the role of oil and gas extraction in the recent upsurge in atmospheric methane.⁹⁹⁷ (See entry for February 16, 2016 below.)

⁹⁹³ Franco, B., Mahieu, E., Emmons, L. K., Tzompa-Sosa, Z. A., Fischer, E. V., Sudo, K., . . . Walker, K. A. (2016). Evaluating ethane and methane emissions associated with the development of oil and natural gas extraction in North America. *Environmental Research Letters*, 11. doi: 10.1088/1748-9326/11/4/044010

⁹⁹⁴ Lyon, D. R., Alvarez, R. A., Zavala-Araiza, D., Brandt, A. R., Jackson, R. B., & Hamburg, S. P. (2016). Aerial surveys of elevated hydrocarbon emissions from oil and gas production sites. *Environmental Science & Technology*, 50, 4877–4886. doi: 10.1021/acs.est.6b00705

⁹⁹⁵ McKenna, P. (2016, April 8). Researchers find no shortcuts for spotting wells that leak the most methane. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/07042016/big-methane-leaks-superemitters-oil-gas-production-climate-change-edf>

⁹⁹⁶ Schaefer, H., Fletcher, S. E. M., Veidt, C., Lassey, K. R., Brailsford, G. W., Bromley, T. M., . . . White, J. W. C. (2016, March 10). A 21st century shift from fossil-fuel to biogenic methane emissions indicated by ¹³CH₄. *Science*. doi: 10.1126/science.aad2705

⁹⁹⁷ McKenna, P. (2016, March 10). The mystery of the global methane rise: Asian agriculture or U.S. fracking? *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/10032016/mysterious-global-methane-rise-asian-agriculture-or-us-fracking>

- February 16, 2016 – A Harvard-led team used both satellite retrievals and surface observations to estimate that methane emissions in the United States increased by more than 30 percent over the past twelve years. These findings, which contradict the 10 percent decline reported by the EPA, suggest that the United States could be responsible for 30-60 percent of the recent global spike in atmospheric methane.^{998, 999} Since 2015, research on atmospheric methane has frequently relied on an “inverse method” to optimize emission estimates by combining “bottom-up” and “top-down” data, yet data from different sources have not yielded consistent estimates of methane emissions and levels. Three major sources (Wecht et al. [2014], Miller et al. [2013], and Turner et al. [2015]) all found maximum emissions in the South Central United States, with spatial overlaps that made separating livestock sources from oil and gas sources difficult. Taking into account the time period investigated by differing studies reveals an increasing trend in methane emissions, with an increase of 38 percent from 2004 to 2011, a period of greatly increasing drilling activity. This trend is confirmed by analyzing temporal trends in satellite data. While this account still differs from the EPA’s inventory in 2014 showing a 3 percent decrease in oil and gas emissions over that same time period, the EPA’s data presumed better control of measured leaks, which may not correlate with better control of overall emissions.
- January 29, 2016 – Working in the Marcellus Shale Basin, a Carnegie Mellon research team compared methane emissions from older conventional gas wells (those that were vertically drilled) and newer, unconventional gas wells (those that combined fracking with horizontal drilling). Measured by facility, the mean emission rate for unconventional wells was 23 times higher than that of conventional wells. This difference, in part, was attributed to the larger size of unconventional well pads, which, typically, have multiple wells per pad, more ancillary equipment, and produce more gas. When corrected for production, the conventional wells leaked more—that is to say, they lost a comparably larger fraction of methane per unit of production—likely due to “unresolved equipment maintenance issues.” All together, the authors concluded, these new emissions data show that the recently instituted Pennsylvania Department of Environmental Protection’s (PA DEP) methane emissions inventory substantially underestimates facility-level methane emissions. Five unconventional well sites included in this study leaked 10-37 times more methane than estimated in the state inventory.¹⁰⁰⁰
- January 25, 2016 – Cornell University scientists introduced an innovative methodology for assessing potential climate impacts of alternative choices and used it to demonstrate that emissions of the two most important greenhouse gases (carbon dioxide and methane), calculated as time-integrated radiative forcing, are lower with heat pump water heaters than any other means of heating water. Further, their calculations showed that

⁹⁹⁸ Turner, A. J., Jacob, D. J., Benmergui, J., Wofsy, S. C., Maasackers, J. D., Butz, A., . . . Biraud, S. C. (2016). A large increase in U.S. methane emissions over the past decade inferred from satellite data and surface observations. *Geophysical Research Letters*, 43. doi: 10.1002/2016GL067987

⁹⁹⁹ Magill, B. (2016, February, 16). Study ties U.S. to spike in global methane emissions. *Climate Central*. Retrieved from <http://www.climatecentral.org/news/us-60-percent-of-global-methane-growth-20037>

¹⁰⁰⁰ Omara, M., Sullivan, M. R., Li, X., Subramanian, R., Robinson, A. L., & Presto, A. A. (2016). Methane emissions from conventional and unconventional natural gas production sites in the Marcellus Shale Basin. *Environmental Science & Technology*, 50. doi: 10.1021/acs.est.5b05503

heat pump water heaters powered by coal-generated electricity achieve greater net climatic benefit than heaters powered by natural gas, while even greater benefits may be achieved by combining heat pump water heaters with electricity generated by renewable sources. The authors proposed and justified a methane emission rate of 3.8 percent for conventional shale gas, which is therefore offered as a lower bound for future, tightly controlled methane emissions from unconventional gas activities. The authors also made their web-based tool for evaluating the greenhouse gas footprint of reference and alternative technologies and its source code available to the public (at <http://www.eeb.cornell.edu/howarth/methane/tool.htm>).¹⁰⁰¹

- December 22, 2015 – To reconcile troubling divergences in published estimates of methane emissions, in which “top-down” estimates, based on atmospheric or satellite sampling, often exceed “bottom-up” estimates, based on ground-level sampling or individual source reports, researchers used a combination of repeated mass balance measurements plus ethane fingerprinting to improve top-down estimates and incorporated a more complete and detailed count of facilities to improve bottom-up estimates.¹⁰⁰² The results, as demonstrated in the Barnett Shale oil and gas-producing region of Texas, revealed a convergence of estimates to within 10 percent for fossil methane and 0.1 percent for total methane, with predicted methane emissions 90 percent larger than those estimated by the EPA’s Greenhouse Gas Inventory. Exclusion of additional problematic studies might have resulted in even greater convergence and higher estimates.¹⁰⁰³ The agreement between top-down and bottom-up estimates demonstrates that well-designed surveys using either approach can be useful, with spatially resolved bottom-up estimates pointing toward production sites as the source of 53 percent of emissions, compressor stations 31 percent of emissions, and processing plants 13 percent of emissions. The Barnett shale emission rate of 1.5 percent calculated in this study is low enough (less than 3 percent) to suggest that gas fired electricity production in this region causes less climate forcing than coal-fired electricity, but it is high enough (greater than 1 percent) to argue against the conversion of diesel powered freight trucks to compressed natural gas. Gas production practices and heavier activity in other basins may lead to higher emission rates, as may the storage and long-distance or very long-distance transmission of natural gas.
- December 22, 2015 – Writing for *Environment & Energy Publishing*, journalist Gayathri Valdyanathan reported on efforts by climate scientists to convince the United Nations to stop expressing the heat-trapping potential of methane over a 100-year time frame and instead use a twenty-year time frame when generating global warming potential, the conversion factor that allows policymakers to compare methane’s ability to trap heat with that of carbon dioxide. Methane is a far more potent heat-trapping gas than is carbon

¹⁰⁰¹ Hong, B., & Howarth, R. W. (2016). Greenhouse gas emissions from domestic hot water: Heat pumps compared to most commonly used systems. *Energy Science & Engineering*, 4(2), 123-133. doi: 10.1002/ese3.112

¹⁰⁰² Zavala-Araiza, D., Lyon, D. R., Alvarez, R. A., Davis, K. J., Harriss, R. Herndon, S. C., . . . Hamburg, S. P. (2015). Reconciling divergent estimates of oil and gas methane emissions. *Proceedings of the National Academies of Science*, 112(51), 15597-15602. doi: 10.1073/pnas.1522126112

¹⁰⁰³ Song, L. (2015, December 7). Texas fracking zone emits 90% more methane than EPA estimated. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/07122015/methane-emissions-texas-fracking-zone-90-higher-epa-estimate>

dioxide, but it is also shorter lived. By convention, policymakers have used a 100-year time frame when calculating global warming potentials. However, there is no scientific reason to do so, and many scientific critics argue that choosing this time scale veils the true climate impacts of natural gas and “makes the gas appear more benign than it is.”¹⁰⁰⁴

- November 25, 2015 – Using reports from countries and companies with proved reserves of recoverable oil, natural gas, and coal, an analysis published in *Global Environmental Change* shows that full production of these resources would use up 160 percent of the world’s estimated remaining carbon budget (designed to restrict anthropogenic climate change to equal to or less than 2° C). While 76 percent of reserves are owned by states or state entities, the relatively smaller amount of reserves owned by investors poses the greater immediate threat, since those companies are more likely poised to produce, refine, and deliver fossil fuels to global markets in the near term. However, exploitation of existing proved reserves controlled by the private sector alone does not lead to warming above the 2° limit, if it is not accompanied by exploration for and development of new reserves. Future considerations of fossil fuel use should focus not only on reducing private sector contributions but also on reducing contributions from countries that have historically dominated or currently dominate emissions, and especially nation-states with large undeveloped reserves.¹⁰⁰⁵
- November 9, 2015 – Including data available through 2014, the World Meteorological Organization (WMO) reported that globally averaged levels of carbon dioxide, methane, and nitrous oxide reached new highs in 2014, with values, respectively, “143%, 254% and 121% of pre-industrial (1750) levels.”^{1006, 1007} While the atmospheric increase in carbon dioxide has slowed, methane and nitrous oxide levels continue to increase. Measurements from the WMO’s Global Watch Programme point to wetlands in the tropics and anthropogenic sources at mid-latitudes of the northern hemisphere as the sources of increased methane over the past decade.
- October 8, 2015 – As a foundation for policy recommendations, Cornell University biogeochemist Robert Howarth summarized and analyzed the evidence documenting the magnitude of methane emissions related to oil and gas development in the United States since 2007. With estimated emission rates ranging from 3.8-12 percent, the high radiative forcing of methane over a twenty-year period prevents natural gas from serving as a bridge fuel. Instead of further investments in natural gas, Howarth proposes a rapid transition to electric powered vehicles for transportation, high-efficiency heat pumps for space and water heating, and imposition of a methane tax that is roughly 86 times higher

¹⁰⁰⁴ Vaidyanathan, G. (2015, December 22). Recalculation of leaking methane impacts may affect natural gas market. *E&E Publishing, LLC*. Retrieved from <http://www.eenews.net/stories/1060029873>

¹⁰⁰⁵ Heede, R., & Oreskes, N. (2015). Potential emissions of CO₂ and methane from proved reserves of fossil fuels: An alternative analysis. *Global Environmental Change*, 36. Advance online publication. Retrieved from <http://dx.doi.org/10.1016/j.gloenvcha.2015.10.005>

¹⁰⁰⁶ World Meteorological Organization. (2015, November 9). The state of greenhouse gases in the atmosphere based on global observations through 2014. *Greenhouse Gas Bulletin*, 11. Retrieved from http://scifun.chem.wisc.edu/news/ghg-bulletin_2015.pdf?id=8495

¹⁰⁰⁷ Miles, T. (2015, November 9). CO₂ levels hit record high for 30th year in a row. *Scientific American*. Retrieved from <https://www.scientificamerican.com/article/co2-levels-hit-record-high-for-30th-year-in-a-row/>

than currently proposed carbon taxes, which typically address only carbon dioxide.¹⁰⁰⁸ Howarth also noted that the EPA “has seriously underestimated the importance of methane emissions in general—and from shale gas in particular.”¹⁰⁰⁹

- August 4, 2015 – A developer of high flow sampling technology determined that a commonly used instrument to quantify methane leakage has unreliable sensors and malfunctions in ways that vastly underreport emissions by factors of three to five. More than 40 percent of the compiled national methane inventory may be affected by this measurement failure, according to the author of this study.¹⁰¹⁰ The implications of this discovery for our understanding of system-wide methane leakage rates from drilling and fracking operations are not known, but they do call into question the results of at least one major study of methane emissions that relied on this device for collecting data. This is the second of two studies that finds that the primary tool approved by the EPA for measuring and reporting emissions of methane fails to function properly when used as directed by the manufacturer. (See also entry below dated March 24, 2015.)
- July 21, 2015 – An international team of researchers investigated the claim that the fracking boom, which has dramatically increased supplies of natural gas in the United States, is the main driver of the modest decline in carbon dioxide emissions since 2007. Conventional wisdom, as expressed by the Third National Climate Assessment of the U.S. Global Change Research Program, attributes the drop in emissions to a shift away from carbon dioxide-intensive coal and toward natural gas in power plants. But this team analyzed the sources of change in carbon dioxide emissions and, using a tool called input-output structural decomposition analysis, documented that the economic downturn, not fuel switching in the power sector, was the explanation for declining carbon dioxide emissions since 2007. The single biggest impact on U.S. emissions was changes in the volume of goods and services consumed. Between 2007 and 2013, driven by a huge drop in the volume of capital investment, emissions associated with capital formation decreased by almost 25 percent. During the same period, emissions related to household consumption decreased by 11 percent.¹⁰¹¹
- July 7, 2015 – A scientific opinion piece by Environmental Defense Fund researchers involved in a group of 11 studies on methane emissions in Texas’ Barnett Shale provided an overview and orientation to new research that either measured or estimated methane emissions from oil and gas operations. Research from both top-down estimates (based on measuring atmospheric methane or related compounds at regional or larger scales) and bottom-up measurements (made directly from components or at ground level near

¹⁰⁰⁸ Howarth, R. W. (2015). Methane emissions and climatic warming risk from hydraulic fracturing and shale gas development: implications for policy. *Energy and Emission Control Technologies*, 3, 45-54. doi: <https://dx.doi.org/10.2147/EECT.S61539>

¹⁰⁰⁹ Hauser, A. (2015, October 21). Two studies highlight risks of fracking-released methane. *Weather.com*. Retrieved from <https://weather.com/science/environment/news/studies-highlight-risks-of-methane-from-fracking>

¹⁰¹⁰ Howard, T. (2015). University of Texas study underestimates national methane emissions at natural gas production sites due to instrument sensor failure. *Energy Science & Engineering*. Advance online publication. doi: 10.1002/ese3.81

¹⁰¹¹ Feng, K., Davis, S. J., Sun, L., & Hubacek, K. (2015). Drivers of the US CO₂ emissions 1997-2013. *Nature Communications*, 6. doi: 10.1038/ncomms8714

studied sites) demonstrated that methane emissions from oil and gas operations in the Barnett Shale region exceeded the emissions expected from the EPA's greenhouse gas inventory, which relies on industry self-reporting and excludes many compressor stations. The new research detailed the importance of addressing high-emitting landfills and natural gas facilities ("super-emitters") and malfunctioning equipment in efforts to control ongoing methane emissions.¹⁰¹²

- May 28, 2015 – A comprehensive working paper from the New Climate Economy initiative of the Global Commission on the Economy and Climate at Stockholm Environment Institute found that the experience in the United States of substituting natural gas for oil was unlikely to be replicated around the globe and probably will not provide climate benefits unless coupled with strict controls on methane leakage, limits on total energy use, and policies to prevent the displacement of non-fossil fuel energy by methane. Citing multiple studies of the net climate impact of "more abundant, cheaper natural gas supplies," the Commission concluded that "both globally and for the United States, the increase in emissions from the scale effect [from increased energy consumption boosted by cheap natural gas and loss of potentially more expensive lower carbon approaches] fully offsets the emission benefits from the substitution effect, net of methane leakage."^{1013, 1014}
- March 24, 2015 – A University of Cincinnati researcher and independent engineers documented that the Bacharach Hi-Flow Sampler (BHFS)—one of the only tools approved by the EPA for measuring and reporting emissions of methane from natural gas transmission, storage, and processing facilities—failed to function properly when used as indicated by the manufacturer. The BHFS, unless recalibrated daily and running revised software (or taking measurements in a nearly pure methane environment, which is exceedingly rare in the field), misreported high levels of natural gas by as much as an order of magnitude lower than actual concentration. A reanalysis of 2011 results from the City of Fort Worth Air Quality Study revealed at least seven instances for which the BHFS indicated sample concentrations at or below 5 percent when more reliable canister methane readings indicated concentrations that ranged from 6.1 percent to 90.4 percent. Inaccurate measurements like these can contribute to the discrepancy between "top-down" and "bottom-up" measurements of methane, with ground-level measurements from the BHFS potentially producing reports of falsely low emissions.¹⁰¹⁵ This study was followed by another that further documented malfunctions in the BHFS device and called

¹⁰¹² Harriss, R., Alvarez, R.A., Lyon, D., Zavala-Araiza, D., Nelson, D., & Hamburg, S.P. (2015). Using multi-scale measurements to improve methane emission estimates from oil and gas operations in the Barnett Shale Region, Texas. *Environmental Science & Technology*, 49, 7524-7526. doi: 10.1021/acs.est.5b02305

¹⁰¹³ Lazarus, M., Tempest, K., Klevnäs, P., & Korsbakken, J. I. (2015) Natural gas: Guardrails for a potential climate bridge. Stockholm Environment Institute. Retrieved from <http://www.sei-international.org/mediamanager/documents/Publications/Climate/NCE-SEI-2015-Natural-gas-guardrails-climate-bridge.pdf>

¹⁰¹⁴ Evans, S. (2015, June 2). The climate benefits of a gas bridge are unlikely to be significant. *Climate Spectator*. Retrieved from <http://www.businessspectator.com.au/article/2015/6/2/policy-politics/climate-benefits-gas-bridge-are-unlikely-be-significant>

¹⁰¹⁵ Howard, T., Ferrara, T., & Townsend-Small, A. (2015). Sensor transition failure in the high flow sampler: Implications for methane emission inventories of natural gas infrastructure. *Journal of the Air & Waste Management Association*, 65(7), 856-862. doi: 10.1080/10962247.2015.1025925

into question the results of a landmark 2013 survey of methane emissions at 190 drilling and fracking sites across the United States. That 2013 survey, from the University of Texas, relied on the BHFS device for collecting data and found very low leakage rates.¹⁰¹⁶ (See also entry above dated August 4, 2015.)

- March 20, 2015 – A team led by Bruno Franco from the University of Liege in Belgium discovered an abrupt uptick in ethane levels at a mountaintop station in the Swiss Alps that is far removed from local pollution sources.¹⁰¹⁷ In a later comment about this discovery, Franco said, “Since 2009, we observed increases of 5% per year here—it was completely unexpected.”¹⁰¹⁸ The team attributed the trend reversal to the natural gas boom in North America. Ethane is released together with methane from drilling and fracking operations and serves as a proxy for it. (See also the entry above for April 7, 2016.)
- March 9, 2015 – With specialized equipment in a mobile van, University of Colorado, NOAA, Environmental Defense Fund, and independent researchers continuously measured methane and ethane from public roads at sites downwind of potential emission sources, such as natural gas production wellheads, processing plants, and compressor stations. The sampling method and modeling allowed capture of multiple “accidental” plumes, acquired during long drives across the study region between planned measurements near large facilities. Sampling was not random but documented a large number of facilities with low methane emission rates (equal to or less than 10 kg/hr), with a smaller yet important number of facilities showing much higher emissions. Although the largest measured emission in this study (1,360 kg/hr) corresponded to approximately \$1.2 million in lost revenue per year, the authors noted that, in this industry, the “leak fraction” or “proportional loss” levels they documented would generally translate into only a small proportion of lost revenue, probably not sufficient to prompt strong energy-sector self-regulation.¹⁰¹⁹
- March 1, 2015 – Using a simulation model, the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, writing for Germany’s Federal Environmental Agency, found that shale gas was not a cheap option to reduce global greenhouse gas emissions. Multiple comparison simulations found that shale gas availability, especially in the short-term, tends to lead to higher emissions due to lower energy prices inducing higher use. The net result is higher costs to achieve compliance

¹⁰¹⁶ Allen, D. T., Torres, V. M., Thomas, J., Sullivan, D.W., Harrison, M., Hendler, A., . . . Seinfeld, J. H. (2013). Measurements of methane emissions at natural gas production sites in the United States. *Proceedings of the National Academy of Sciences*, 110, 17768–17773. doi: 10.1073/pnas.1304880110

¹⁰¹⁷ Franco, B., Bader, W., Toon, G. C., Bray, C., Perrin, A., Fischer, E. V., . . . Mahieu, E. (2015). Retrieval of ethane from ground-based FTIR solar spectra using improved spectroscopy: recent burden increase above Jungfrauoch. *Journal of Quantitative Spectroscopy and Radiative Transfer*, 160, 36–49. <http://dx.doi.org/10.1016/j.jqsrt.2015.03.017>

¹⁰¹⁸ Environmental Research Web. (2016, May 23). Ethane emissions back on the rise. Retrieved from <http://environmentalresearchweb.org/cws/article/news/65093>

¹⁰¹⁹ Yacovitch, T. I., Herndon, S. C., Pétron, G., Kofler, J., Lyon, D., Zahniser, M. S., & Kolb, C. E. (2015). Mobile laboratory observations of methane emissions in the Barnett Shale Region. *Environmental Science & Technology*, 49, 7889–7895. doi: 10.1021/es506352j

with climate targets. In this model, shale gas was also found to compete in an unhelpful way with renewable energy sources, resulting in reduced use of renewable energy sources and reduced investment in energy efficiency measures.¹⁰²⁰

- January 8, 2015 – Using a single integrated modeling program that incorporates detailed estimates of the world’s reserves of oil, gas, and coal and is consistent with a wide variety of prior modeling approaches, University College London researchers demonstrated that, around the world, “a third of oil reserves, half of gas reserves and over 80 per cent of current coal reserves should remain unused from 2010 to 2050” in order to meet a target of less than or equal to a 2 degree Celsius rise in global temperature. In addition, “development of resources in the Arctic and any increase in unconventional oil production are incommensurate with efforts to limit average global warming” below the 2 degree threshold. Calling for a “stark transformation” of our understanding of fossil fuel availability, the authors noted that, in a climate-constrained world, fears of scarcity of fossil fuels must be superseded by a commitment to preventing overuse of existing resources and reserves.¹⁰²¹
- November 26, 2014 – Stanford University and independent researchers compared coal and natural gas for power generation and concluded that the question of “whether natural gas plants are better than coal plants cannot be answered in the general case.” During the period of plant operation, “natural gas plants can produce greater near-term warming than coal plants, with the same power output.” They found that over time, natural gas plants can produce some reduction in near-term warming, but only if life cycle methane leakage rates are low and power plant efficiency is high. Relative to coal, there is the potential that “deployment of natural gas power plants could both produce excess near-term warming (if methane leakage rates are high) and produce excess long-term warming (if the deployment of natural gas plants today delays the transition to near-zero emission technologies).”¹⁰²²
- October 23, 2014 – Adding to the debate about natural gas and climate change, a multi-center, international research team used a sophisticated, integrated approach to the global energy-economy-climate systems question and found no climate benefit to natural gas over other fossil fuels. As summarized by the editor of *Nature*,

The development of hydraulic fracturing technologies has led to rapid growth in the use of natural gas as an energy source. Some evidence has suggested that this growing adoption of natural gas might lead a reduced greenhouse gas burden and consequent mitigation of climate change. This collaboration between five energy–

¹⁰²⁰ Kersting, J., Duscha, V., Schleich, J., & Keramidias, K. (2015). The impact of shale gas on the costs of climate policy. Environmental Research of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety. Retrieved from https://www.umweltbundesamt.de/sites/default/files/medien/378/publikationen/climate_change_03_2015_the_impact_of_shale_gas_1.pdf

¹⁰²¹ McGlade, C., & Ekins, P. (2015). The geographical distribution of fossil fuels unused when limiting global warming to 2°C. *Nature*, 517, 187-190. doi: 10.1038/nature14016

¹⁰²² Zhang, X., Myhrvold, N. P., & Calideira, K. (2014). Key factors for assessing climate benefits of natural gas versus coal electricity generation. *Environmental Research Letters*, 9. doi: 10.1088/1748-9326/9/11/114022

climate modelling teams show that instead—under a scenario of abundant natural gas availability—increased consumption will have little or no impact on climate change.” The authors concluded, “although market penetration of globally abundant gas may substantially change the future energy system, it is not necessarily an effective substitute for climate change mitigation policy.”¹⁰²³

- October 6, 2014 – Utilizing satellite data for the Bakken and Eagle Ford formations, scientists from Germany, the United Kingdom, and the University of Maryland confirmed that higher “top-down” estimates of fugitive methane leaks from oil and gas fields (which are obtained via tall tower flask samples, aircraft measurements, and road surveys) are more accurate than lower “bottom-up” estimates (which are obtained by summing emissions from different types of known sources at sites provided by participating utility companies). According to “bottom-up” estimates, the average U.S. leakage rate ranges from 1.2-2.0 percent. But satellite data show much higher leakage rates: 10.1 percent (\pm 7.3 percent) and 9.1 percent (\pm 6.2 percent), for the Bakken and Eagle Ford formations, respectively. These higher estimates indicate that current inventories likely underestimate fugitive emissions and call into question any immediate climate benefit from switching from coal to natural gas. Similar results were seen for the Marcellus shale region, but as a result of technical and geographical limitations, the authors declined to quantify their results, pending future studies with enhanced equipment.¹⁰²⁴
- September 24, 2014 – According to a paper published by scientists from the University of California and Stanford University, “... without strong limits on [greenhouse gas] emissions or policies that explicitly encourage renewable electricity, abundant natural gas may actually slow the process of decarbonization, primarily by delaying deployment of renewable energy technologies.” The study builds on previous research by examining natural gas in a range of supply curves, with a tested economic model, and across three different types and levels of climate policy. Researchers found that abundant natural gas, even with low rates of methane leakage, does little to reduce—and may increase—greenhouse gases. They conclude that delaying deployment of renewable energy technologies “may actually exacerbate the climate change problem in the long term.”¹⁰²⁵
- September 2, 2014 – Analyzing the level of greenhouse gas emissions attributable to electricity from natural-gas-fired power plants and coal-fired power plants, economist Chris Busch and physicist Eric Gimon conclude that, over short time frames and at high rates of leakage, natural gas offers little benefit compared to coal and could exacerbate global warming. Although Busch and Gimon acknowledge that natural gas offers some reductions in greenhouse gas emissions over longer time frames, they point out that such

¹⁰²³ McJeon, H., Edmonds, J., Bauer, N., Clarke, L., Fisher, B., Flannery, B., . . . Tavoni, M. (2013). Limited impact on decadal-scale climate change from increased use of natural gas. *Nature*, 514, 482–485. doi: 10.1038/nature13837

¹⁰²⁴ Schneising, O., Burrows, J. P., Dickerson, R. R., Buchwitz, M., Reuter, M., & Bovensmann, H. (2014). Remote sensing of fugitive methane emissions from oil and gas production in North American tight geologic formations. *Earth's Future*, 2(10), 548–558. doi: 10.1002/2014EF000265

¹⁰²⁵ Shearer, C., Bistline, J., Inman, M., & Davis, S. J. (2014). The effect of natural gas supply on US renewable energy and CO2 emissions. *Environmental Research Letters*, 9. doi: 10.1088/1748-9326/9/9/094008

reductions are not large enough for natural gas to play an expanded role in efforts to manage emissions. They conclude that under the best of circumstances, natural gas-fired electric power offers a modest benefit toward abating climate change, while if poorly developed (i.e., with extensive methane leaks, estimated by these authors to be on the order of 4 percent or higher), or if used to displace energy efficiency or renewable energy, natural gas could seriously contribute to increased greenhouse gas emissions.¹⁰²⁶

- August 5, 2014 – Reporting in *Scientific American*, the science news organization Climate Central outlined the natural gas-related factors that threaten any ability to achieve climate goals through the proposed Clean Power Plan. “No one has any idea how much methane is leaking from our sprawling and growing natural gas system. This is a major problem, because without a precise understanding of the leak rate natural gas could actually make climate change worse.” Referring to an interactive Climate Central tool that runs various methane leakage scenarios, the article notes that, even given modest leak rates and an aggressive transition, “we could still end up with little or no climate benefits by 2030 after an enormous financial and political investment in natural gas.”¹⁰²⁷
- July 25, 2014 –EPA’s Office of Inspector General reports that the agency “has placed little focus and attention on reducing methane emissions from pipelines in the natural gas distribution sector.” According to this report, the EPA acknowledged in 2012 that leaks from natural gas pipelines “accounted for more than 13 million metric tons of carbon dioxide equivalent emissions,” are almost 100 percent methane, and represent more than 10 percent of total methane emissions from natural gas systems in the United States. Nevertheless, as report went on to note, the EPA does not have the partnerships in place to begin controlling methane leaks, such as with the Pipeline and Hazardous Materials Safety Administration, nor has it conducted a comprehensive analysis of emissions factors, relying instead on a 1996 study with a “high level of uncertainty.”¹⁰²⁸
- May 15, 2014 – A recent review of existing data on life cycle emissions of methane from natural gas systems concluded that, as a strategy for addressing climate change, natural gas is a “bridge to nowhere.” The review found that, over a 20-year time frame, natural gas is as bad as or worse than coal and oil as a driver of climate change.¹⁰²⁹ Referencing this review and other recent studies, *Bloomberg Business News* reported that the EPA has underestimated the impact of methane leakage resulting from the production, transmission, and distribution of natural gas and is using outdated estimates of methane’s

¹⁰²⁶ Busch, C. & Gimon, E. (2014). Natural gas versus coal: Is natural gas better for the climate. *The Electricity Journal*, 27(7), 97-111.

¹⁰²⁷ Climate Central. (2014, August 5). Methane leak rate proves key to climate change goals. *Scientific American*. Retrieved from <http://www.scientificamerican.com/article/methane-leak-rate-proves-key-to-climate-change-goals/>

¹⁰²⁸ U.S. Environmental Protection Agency Office of Inspector General. (2014, July 25). *Improvements needed in EPA efforts to address methane emissions from natural gas distribution pipelines*. Report No. 14-P-0324. Retrieved from <http://www.epa.gov/oig/reports/2014/20140725-14-P-0324.pdf>

¹⁰²⁹ Howarth, R. W. (2014). A bridge to nowhere: Methane emissions and the greenhouse gas footprint of natural gas [Abstract]. *Energy Science & Engineering*. doi: 10.1002/ese3.35

potency compared to more recent estimates from the Intergovernmental Panel on Climate Change (IPCC).¹⁰³⁰

- April 25, 2014 – A reassessment of the heat-trapping potential of greenhouse gases revealed that current methods of accounting underestimate the climate-damaging impact of methane pollution from all sources, including drilling and fracking operations.¹⁰³¹
- April 14, 2014 – A study from researchers at Purdue University, NOAA, Cornell University, University of Colorado at Boulder, and Pennsylvania State University, published in *Proceedings of the National Academy of Sciences* found very high levels of methane emissions above many wells being drilled at fracking sites in Pennsylvania. Levels were 100-1,000 times above the estimates of federal regulators, who have always assumed very low methane emissions as wells are drilled.^{1032, 1033}
- February 26, 2014 – The United Nations’ top environmental official, Achim Steiner, argued that the shale gas rush is “a liability” in efforts to slow climate change and that a switch from coal to natural gas is delaying critical energy transition to renewables.¹⁰³⁴
- February 13, 2014 – A major study in *Science* by Stanford University, Massachusetts Institute of Technology, and the U.S. Department of Energy found that methane leaks negate any climate benefits of natural gas as a fuel for vehicles, and that the EPA is significantly underestimating methane in the atmosphere.¹⁰³⁵ Lead author Adam R. Brandt told the *New York Times*, “Switching from diesel to natural gas, that’s not a good policy from a climate perspective.”¹⁰³⁶ This study also concluded that the national methane leakage rate is likely between 3.6 and 7.2 percent of production.

¹⁰³⁰ Childers, A. (2014, May 9). EPA underestimates fracking's impact on climate change. *Bloomberg*. Retrieved from <http://www.bloomberg.com/news/2014-05-09/epa-underestimates-fracking-s-impact-on-climate-change.html>

¹⁰³¹ Edwards, M. R., & Trancik, J. E. (2014). Climate impacts of energy technologies depend on emissions timing. *Nature Climate Change*, 4, 348-352. doi: 10.1038/NCLIMATE2204

¹⁰³² Caulton, D. R., Shepson, P. B., Santoro, R. L., Sparks, J. P., Howarth, R. W., Ingraffea, A. R., . . . Miller, B. R. (2014). Toward a better understanding and quantification of methane emissions from shale gas development. *Proceedings of the National Academy of Sciences of the United States of America*. doi: 10.1073/pnas.1316546111

¹⁰³³ Banjee, N. (2014, April 14). EPA drastically underestimates methane released at drilling sites. *Los Angeles Times*. Retrieved from <http://www.latimes.com/science/sciencenow/la-sci-sn-methane-emissions-natural-gas-fracking-20140414,0,2417418.story>

¹⁰³⁴ Goldenberg, S. (2014, February 26). Achim Steiner: Shale gas rush “a liability” in efforts slow climate change. *Guardian*. Retrieved from <http://www.theguardian.com/environment/2014/feb/26/achim-steiner-shale-gas-rush-climate-change-energy>

¹⁰³⁵ Brandt, A. R., Heath, G. A., Kort, E. A., O'Sullivan, F., Petron, G., Jordaan, S. M., . . . Harriss, R. (2014). Methane leaks from North American natural gas systems. *Energy and Environment*, 343(6172), 733-735. doi: 10.1126/science.1247045

¹⁰³⁶ Davenport, C. (2014, February 13). Study finds methane leaks negate benefits of natural gas as a fuel for vehicles. *The New York Times*. Retrieved from <http://www.nytimes.com/2014/02/14/us/study-finds-methane-leaks-negate-climate-benefits-of-natural-gas.html?smid=tw-share>

- January 15, 2014 – As reported by the *Guardian*, a new study by BP concluded that shale gas “...will not cause a decline in greenhouse gases” and will do little to cut carbon emissions.¹⁰³⁷
- December 30, 2013 – An analysis of fracking-related truck transportation in the Susquehanna River Basin in Pennsylvania found that greenhouse gas emissions from frack water and waste hauling operations were 70-157 metric tons of CO₂ equivalent per gas well.¹⁰³⁸
- November 11, 2013 – In a letter to California Governor Jerry Brown, twenty of the nation’s top climate scientists warned that pro-fracking policies will worsen climate disruption and harm California’s efforts to be a leader in reducing greenhouse gas emissions. The letter called on Governor Brown to place a moratorium on fracking.¹⁰³⁹ On November 21, 2013, a group of Governor Brown’s former policy and campaign advisors made a similar request in light of concerns about the effects of fracking on climate change and water pollution.¹⁰⁴⁰
- October 18, 2013 – A team of researchers from multiple institutions including Harvard, the University of Michigan, and NOAA reported that methane emissions due to drilling activities in the south-central U.S. may be almost five times greater than reported by the world’s most comprehensive methane inventory. “These results cast doubt on the US EPA’s recent decision to downscale its estimate of national natural gas emissions by 25-30 percent,” the authors wrote.¹⁰⁴¹ As the *New York Times* reported, “The analysis also said that methane discharges in Texas and Oklahoma, where oil and gas production was concentrated at the time, were 2.7 times greater than conventional estimates. Emissions from oil and gas activity alone could be five times greater than the prevailing estimate.”¹⁰⁴²
- October 18, 2013 – A major study spearheaded by Stanford University’s Energy Modeling Forum concluded that fracking and the shale gas revolution will have no long-

¹⁰³⁷ Harvey, F., & Macalister, T. (2014, January 16). BP study predicts greenhouse emissions will rise by almost a third in 20 years. *The Guardian*. Retrieved from http://www.theguardian.com/business/2014/jan/15/bp-predicts-greenhouse-emissions-rise-third?CMP=tw_t_gu

¹⁰³⁸ Gilmore, K. R., Hupp, R. L., & Glathar, J. (2014). Transport of Hydraulic Fracturing Water and Wastes in the Susquehanna River Basin, Pennsylvania. *Journal of Environmental Engineering*, 140. doi: 10.1061/(ASCE)EE.1943-7870.0000810

¹⁰³⁹ Rogers, P. (2013, November 12). Top climate scientists call for fracking ban in letter to Gov. Jerry Brown. *San Jose Mercury News*. Retrieved from http://www.mercurynews.com/ci_24509392/top-climate-scientists-call-fracking-ban-letter-gov

¹⁰⁴⁰ McNary, S. (2013, November 21). Former advisors to Gov. Brown request fracking ban. *Southern California Public Radio*. Retrieved from <http://www.scp.org/blogs/politics/2013/11/21/15248/former-advisors-to-gov-brown-request-fracking-ban/>

¹⁰⁴¹ Miller, S. M., Wofsy, S. C., Michalak, A. M., Kort, E. A., Andrews, A. E., Biraud, S. C., . . . Sweeney, C. (2013). Anthropogenic emissions of methane in the United States. *Proceedings of the National Academy of Sciences*, 110(50), 20018-20022. doi: 10.1073/pnas.1314392110

¹⁰⁴² Wines, M. (2013, November 25). Emissions of methane in U.S. exceed estimates, study finds. *The New York Times*. Retrieved from http://www.nytimes.com/2013/11/26/us/emissions-of-methane-in-us-exceed-estimates-study-finds.html?_r=0

term climate benefit. The study brought together a working group of about 50 experts and advisors from companies, government agencies, and universities, and modeling teams from 14 organizations. The study also found that build-out of infrastructure for fracking and natural gas will discourage efforts to conserve energy and boost efficiency. The study did not examine methane leaks in order to weigh in on the short-term climate impacts of natural gas.¹⁰⁴³

- October 11, 2013 – As reported in the *Guardian*, key climate scientists argued that the growth in fracking across the United States is hurting the United States’ credibility on climate change.¹⁰⁴⁴
- October 2, 2013 – Updated measurements from the IPCC determined that methane is even worse for the climate than previously thought. The IPCC determined that methane is 34 times more potent as a greenhouse gas in the atmosphere than CO₂ over a 100-year timeframe, and 86 times more potent over a 20-year timeframe.¹⁰⁴⁵
- September 27, 2013 – The IPCC formally embraced an upper limit on greenhouse gases for the first time, warning that the world will exceed those levels and face irreversible climatic changes in a matter of decades unless steps are taken soon to reduce emissions. The IPCC reported that humanity faces a “carbon budget”—a limit on the amount of greenhouse gases that can be produced by industrial activity before irreversible, damaging consequences—of burning about a trillion metric tons of carbon. The world is on track to hit that by around 2040 at the current rate of energy consumption.¹⁰⁴⁶
- August 12, 2013 – A *New Scientist* review of the science on fracking and global warming concluded that fracking could accelerate climate change rather than slow it.¹⁰⁴⁷
- May 28, 2013 – A research team led by Jeff Peischl, an associate scientist at NOAA and the Cooperative Institute for Research in Environmental Sciences, estimated that methane leakage from Los Angeles-area oil and gas operations was about 17 percent.^{1048, 1049}

¹⁰⁴³ Huntington, H. (2013). Changing the game? Emissions and market implications of new natural gas supplies. *Energy Modeling Forum, 1*. Retrieved from <https://emf.stanford.edu/publications/emf-26-changing-game-emissions-and-market-implications-new-natural-gas-supplies>

¹⁰⁴⁴ Magill, B. (2013, October 11). Fracking hurts US climate change credibility, say scientists. *Guardian*. Retrieved from <http://www.theguardian.com/environment/2013/oct/11/fracking-us-climate-credibility-shale-gas>

¹⁰⁴⁵ IPCC. (2013). *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T. F., D. Qin, G.-K. Plattner, M. Tignor, S. K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex & P. M. Midgley (eds.)]. Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press. doi: 10.1017/CBO9781107415324.

¹⁰⁴⁶ Gillis, J. (2013, September 27). U.N. climate panel endorses ceiling on global emissions. *The New York Times*. Retrieved from <http://www.nytimes.com/2013/09/28/science/global-climate-change-report.html?pagewanted=all>

¹⁰⁴⁷ Pearce, F. (2013, August 12). Fracking could accelerate global warming. *New Scientist*. Retrieved from <http://www.newscientist.com/article/dn24029-fracking-could-accelerate-global-warming.html#.UpEWqsQ3uSo>

¹⁰⁴⁸ Peischl, J., Ryerson, T. B., Brioude, J., Aikin, K. C., Andrews, A. E., Atlas, E., . . . Parrish, D. D. (2013). Quantifying sources of methane using light alkanes in the Los Angeles basin, California. *Journal of Geophysical Research: Atmospheres, 118*(10), 4974-4990. doi: 10.1002/jgrd.50413

¹⁰⁴⁹ Ogburn, S. (2014, May 15). Solving the Case of California’s Extra Methane. *Scientific American Global RSS*. Retrieved from <http://www.scientificamerican.com/article/solving-the-case-of-californias-extra-machine/>

- May 2013 – A group of scientists and journalists studying climate change, led by energy systems analyst Eric Larson of Princeton University and the news organization Climate Central, reported that the often-purported 50 percent climate advantage of natural gas over coal is unlikely to be achieved over the next three to four decades given methane leaks and other factors.¹⁰⁵⁰ The 50 percent claim is based on the fact that natural gas produces half as much carbon dioxide when burned than coal, but it ignores the significant greenhouse gas impacts of methane leakage that occurs throughout the life cycle of natural gas production, transmission, and distribution.
- January 2, 2013 – A NOAA study found methane emissions from oil and gas fields in Utah to be as high as nine percent of production. These levels are considered extremely damaging to the climate.¹⁰⁵¹
- November 2012 – A review by the United Nations Environment Programme found that emissions from fracking, as well as other unconventional natural gas extraction methods, could increase global warming in the short-term and be comparable to coal over a 100-year timeframe.¹⁰⁵²
- November 2012 – The International Energy Agency (IEA) found that a large natural gas boom—even with improvements in place to reduce leakage—would eventually lead to greenhouse gas concentrations of 650 parts per million and a global temperature rise of 3.5 degrees Celsius, far exceeding the 2 degree Celsius limit which is critical to avoid the most severe effects of climate change.¹⁰⁵³
- May 29, 2012 – The *Guardian* summarized a special report on natural gas by the IEA: “A ‘golden age of gas’ spurred by a tripling of shale gas from fracking and other sources of unconventional gas by 2035 will stop renewable energy in its tracks if governments do not take action.”¹⁰⁵⁴
- February 2012 – A study published in *Environmental Research Letters* found that the carbon dioxide emitted from the burning of natural gas—even neglecting the impacts of methane leakage—contributes significantly to greenhouse gas emissions that are driving climate change.¹⁰⁵⁵

¹⁰⁵⁰ Larson, E. D. (2013). Natural gas & climate change. *Climate Central*. Retrieved from <http://assets.climatecentral.org/pdfs/NaturalGas-and-ClimateChange.pdf>

¹⁰⁵¹ Tollefson, J. (2013). Methane leaks erode green credentials of natural gas. *Nature*, 493(7430), 12. doi: 10.1038/493012a

¹⁰⁵² Global Environmental Alert Service. (2012). Gas fracking: Can we safely squeeze the rocks? United Nations Environmental Programme. Retrieved from http://www.unep.org/pdf/UNEP-GEAS_NOV_2012.pdf

¹⁰⁵³ World Energy Outlook 2012, (November 2012). *Golden Rules for a Golden Age of Natural Gas—World Energy Outlook Special Report on Unconventional Gas*, International Energy Agency. Retrieved from <http://www.iea.org/publications/freepublications/publication/name,27408,en.html>

¹⁰⁵⁴ Harvey, F. (2012, May 29). 'Golden age of gas' threatens renewable energy, IEA warns. *Guardian*. Retrieved from <http://www.theguardian.com/environment/2012/may/29/gas-boom-renewables-agency-warns>

¹⁰⁵⁵ Myhrvold, N. P., & Caldeira, K. (2012). Greenhouse gases, climate change and the transition from coal to low-carbon electricity. *Environmental Research Letters*, 7(1). doi: 10.1088/1748-9326/7/1/014019

- February 7, 2012 – A NOAA study of Colorado gas fields measured methane emissions of about four percent, a significant percentage that could be very damaging to the climate.¹⁰⁵⁶
- December 29, 2011 – As reported by the *New York Times*, levels of methane in the atmosphere have been steadily rising since 2007—coinciding with the onset of the fracking boom and posing a serious threat to the Earth’s climate.¹⁰⁵⁷
- October 2011 – A study from the National Center for Atmospheric Research concluded that substituting the use of natural gas for coal will increase, rather than decrease, the rate of global warming for many decades.¹⁰⁵⁸
- July 6, 2011 – According to the U.S. Energy Information Administration and other research, significant amounts of methane are leaking from aging gas pipelines and infrastructure.¹⁰⁵⁹
- April 2011 – A comprehensive analysis of the greenhouse gas footprint of natural gas from shale formations found that between 3.6 percent to 7.9 percent of the methane from natural gas production wells escapes into the atmosphere, rather than being combusted, thereby undermining any climate benefits of gas over coal as a source of energy.^{1060, 1061}

¹⁰⁵⁶ Tollefson, J. (2012, February 7). Air sampling reveals high emissions from gas field. *Nature*. Retrieved from <http://www.nature.com/news/air-sampling-reveals-high-emissions-from-gas-field-1.9982>

¹⁰⁵⁷ Gillis, J. (2011, December 29). The puzzle of rising methane. *The New York Times*. Retrieved from <http://green.blogs.nytimes.com/2011/12/29/the-puzzle-of-rising-methane/>

¹⁰⁵⁸ Wigley, T. M. (2011). Coal to gas: The influence of methane leakage. *Climatic Change*, 108(3), 601-608. doi: 10.1007/s10584-011-0217-3

¹⁰⁵⁹ McKenna, P. (2011, July 6). Thousands of gas leaks under Boston and San Francisco. *New Scientist*. Retrieved from <http://www.newscientist.com/article/mg21128203.800-thousands-of-gas-leaks-under-boston-and-san-francisco.html#.UpEbbMQ3uSp>

¹⁰⁶⁰ Howarth, R. W., Santoro, R., & Ingraffea, A. (2011). Methane and the greenhouse-gas footprint of natural gas from shale formations. *Climatic Change*, 106(4), 679-690. doi: 10.1007/s10584-011-0061-5

¹⁰⁶¹ Howarth, R. W., Santoro, R., & Ingraffea, A. (2012). Venting and leaking of methane from shale gas development: Response to Cathles et al. *Climatic Change*, 113(2), 537-549. doi: 10.1007/s10584-012-0401-0

Threats from fracking infrastructure

The infrastructure for drilling and fracking operations is complex, widespread, and poses its own risks to public health and the climate. Beginning where silica sand is mined and processed and ending where gas is burned or liquefied for export, infrastructure includes pipelines, compressor stations, dehydrators, processing plants, flare stacks, gas-fired power plants, and storage depots through which oil or gas is moved, filtered, pressurized, warehoused, refined, and vented. It also includes injection wells and recycling facilities that dispose and treat the prodigious amounts of liquid waste that fracking generates. Air pollution is produced at every stage of the process. [Note: harm from flare stacks is included in Air Pollution and is not taken up in the sub-sections that follow.]

Sand mining and processing

In the Upper Midwest, the boom in silica sand mining threatens both air and water quality. It has transformed rural areas into industrialized zones and introduced complex public health risks that are not well understood. Silica dust is a well-known cause of both lung cancer and silicosis. Precise exposures to downwind communities remain uncertain. Until recently, the center of frack sand mining was western Wisconsin. However, sand mines in the Permian Basin of west Texas now provide one quarter of the total U.S. supply of frack sand. Texas sand is considered inferior to Wisconsin sand, which is crush-resistant and ideally shaped to prop open fractures to allow oil and gas to flow up the borehole. However, Texas sand is up to 50 percent cheaper as it does not incur the cost of rail transport to reach the booming Permian Basin oil wells.

- March 7, 2019 – The Minnesota Supreme Court announced that it would hear oral arguments on the legality of Winona County’s ban on the mining of silica sand for use in fracking operations. A Winona County judge, as well as a Minnesota Court of Appeals, sided against Minnesota Sands, LLC and ruled in favor of the county legislature.¹⁰⁶² The ban prohibits mining sand for industrial purposes but allows mining for construction purposes. The county has argued that it is within its rights to protect the health of its citizens. Its original ordinance, passed on November 22, 2016, was the first countywide ban in the nation on the extraction of silica sand for use in drilling and fracking operations. It became the subject of a lawsuit by Minnesota Sands on the grounds that the ordinance violates the federal Commerce Clause of the U.S. Constitution.^{1063, 1064}

¹⁰⁶² Winona Daily News Staff, & Associated Press. (2019, March 7). Challenge to Winona County’s frac sand ban to be heard by state Supreme Court next month. *Winona Daily News*. Retrieved from https://www.winonadailynews.com/news/local/challenge-to-winona-county-s-frac-sand-ban-to-be/article_bd2474ea-e6a7-5f9f-8108-c957de307aad.html

¹⁰⁶³ Rogers, C. (2018, October 31). Supreme Court takes frac sand case. *Winona Post*. Retrieved from <http://www.winonapost.com/Article/ArticleID/61409/Supreme-Court-takes-frac-sand-case>

¹⁰⁶⁴ Browning, D. (2018, July 30). Appeals court upholds Winona County ban on frac sand mining. *Star-Tribune*. Retrieved from <http://www.startribune.com/minnesota-appeals-court-upholds-winona-county-ban-on-frac-sand-mining/489529801/>

- December 27, 2018 – Wisconsin’s frack sand mining industry had a volatile year in 2018. Mines that had closed in 2016 due to market downturns reopened on news of increased drilling activity. However, later in the year, the price for sand dropped dramatically as sand mines opened in Texas to serve fracking operations in the nearby Permian Basin. Wisconsin sand companies then closed mines again, with one company laying off 37 employees.¹⁰⁶⁵
- July 17, 2018 – As part of an industry-funded study, a research team retrospectively assessed the silica dust exposure among workers in the industrial sand industry, which includes sand used for fracking. Workers who went on to develop silicosis had significantly more exposure to silica dust than those who did not. Results showed decreases in exposure throughout the industry over time, driven in part by the establishment of workplace regulations in the 1970s that helped accelerate silica dust control programs. Adjustment for use of respiratory protection showed only modest reductions in estimated exposures.¹⁰⁶⁶
- May 11, 2018 – The dunes sagebrush lizard in western Texas is imperiled because of booming demand for frack sand. “It’s really a new threat and it just sort of came in all at once and really has the potential to wipe out a lot of lizard habitat, if not controlled,” said a petition to the U.S. Fish and Wildlife Service that urged the agency to add the dunes sagebrush lizard to the endangered species list.¹⁰⁶⁷ Sand mines in the Permian Basin of west Texas now provide one quarter of the total U.S. supply of frack sand. Texas sand is up to 50 percent cheaper than Wisconsin sand as it does not incur the cost of rail transport to reach the booming Permian Basin oil wells, although it is considered inferior to Wisconsin sand, which is crush-resistant and ideally shaped to prop open fractures to allow oil and gas to flow up the borehole.¹⁰⁶⁸
- August 7, 2017 – A University of Iowa team evaluated the impact of frack sand mining and processing on the concentration of particulate matter in the air of surrounding communities. Sampling in 17 homes located within 800 meters from sand mining activities, the team found that, overall, particulate matter and silica concentrations were lower than regulations and guidelines established to prevent silicosis but spiked when winds blew over the facility. They concluded that particulate matter levels from fracking sand mining and processing were “unlikely to cause chronic adverse health conditions.” Sampling for this study, which took place in 2014, did not consider the impact of living

¹⁰⁶⁵ Kremer, R. (2018, December 27). 2018 was a roller-coaster year for Wisconsin’s frac sand industry. *Wisconsin Public Radio*. Retrieved from <https://www.wpr.org/2018-was-roller-coaster-year-wisconsins-frac-sand-industry>

¹⁰⁶⁶ Rando, R. J., Vacek, P. M., Glenn R. E., Kwon, C. W., & Parker, J. E. (2018). Retrospective assessment of respirable quartz exposure for a silicosis study of the industrial sand industry. *Annals of Work Exposures and Health*, 62(8), 1021-1032. doi: 10.1093/annweh/wxy064

¹⁰⁶⁷ Krebs, N. (2018, May 11). In west Texas, fracking companies face a tough challenger—the dunes sagebrush lizard. *Texas Standard*. Retrieved from <https://www.texasstandard.org/stories/in-west-texas-fracking-companies-face-a-tough-challenger-the-dunes-sagebrush-lizard/>

¹⁰⁶⁸ Wethe, D. (2018, July 10). Why this sand from Texas is suddenly worth \$80 a ton. *Bloomberg*. Retrieved from <https://www.yahoo.com/news/why-sand-texas-suddenly-worth-134140942.html>

near multiple adjacent frack sand operations. The industry in western Wisconsin has expanded considerably since that time.¹⁰⁶⁹

- November 25, 2017 – In Minnesota, a district judge upheld Winona County’s ban on the mining, processing, and loading of frack sand. In her decision, the judge referenced public health and safety threats, fragility of the water quality in the area, and evidence for harm from sand mines in other areas. Winona is the first county in the United States to pass a countywide ban on frack sand extraction. Efforts to replicate the ban are now ongoing in neighboring counties.^{1070, 1071}
- July 5, 2016 – The Wisconsin Department of Natural Resources (DNR) released a *Strategic Analysis for Public Review* of the state’s industrial sand mining industry that downplayed environmental health effects from air pollution. There are 128 industrial sand mine facilities in Wisconsin, including the mines themselves and processing and rail loading facilities. The DNR identified airborne particulate matter as a primary concern for industrial sand mining facilities and said that air quality monitors in western Wisconsin have not detected a problem.¹⁰⁷² Researchers, organizations, and the native community involved in monitoring impacts of the frack sand industry challenged these findings, pointing to lack of data collection on the most dangerous kind of particulate matter called PM2.5, which represents fine particles that are less than 2.5 microns in width. These critics noted that the U.S. Environmental Protection Agency (EPA) had previously expressed concerns about the DNR’s approach to regulating PM2.5.¹⁰⁷³ Regarding groundwater, the report described elevated levels of several metals in wastewater holding ponds at the sand mines, presenting a risk to groundwater quality.
- March 25, 2016 – The Occupational Safety and Health Administration (OSHA) amended its existing standards for occupational exposure to respirable crystalline silica, “having determined that employees exposed to respirable crystalline silica at the previous permissible exposure limits face a significant risk of material impairment to their health.”¹⁰⁷⁴ Key provisions include the reduction of the permissible exposure limit to 50 micrograms per cubic meter of air, averaged over an 8-hour shift. The standards cover many industries with some having two years to comply; the hydraulic fracturing industry

¹⁰⁶⁹ Peters, T. M., O’Shaughnessy, P. T., Grant, R., Altmaier, R., Swanton, E., Falk, J., . . . Thorne, P. S. (2017). Community airborne particulate matter from mining for sand used as hydraulic fracturing proppant. *Science of the Total Environment*, 609, 1475-1482. doi: 10.1016/j.scitotenv.2017.08.006

¹⁰⁷⁰ McKinney, M. (2017, November 25). Judge’s ruling on Winona County ban of frac sand mining stirs interest. *Minneapolis Star-Tribune*. Retrieved from <http://www.startribune.com/judge-s-ruling-on-winona-county-frac-sand-ban-stirs-interest/459974433/>

¹⁰⁷¹ Rogers, C. (2017, November 22). District court upholds county frac sand ban. *Winona Post*. Retrieved from <http://www.winonapost.com/Article/ArticleID/57056/District-court-upholds-county-frac-sand-ban>

¹⁰⁷² Wisconsin Department of Natural Resources. (2016). *Industrial sand mining in Wisconsin: Strategic analysis for public review*. Retrieved from <http://dnr.wi.gov/topic/EIA/documents/ISMSA/ISMSA.pdf>

¹⁰⁷³ Hubbuch, C. (2016, July 6). DNR releases frac sand analysis to immediate criticism from environmental group. *LaCrosse Tribune*. Retrieved from http://lacrossetribune.com/news/local/dnr-releases-frac-sand-analysis-to-immediate-criticism-from-environmental/article_bce8ea56-fff1-52ae-97cb-c67cfb120a1f.html

¹⁰⁷⁴ Occupational Safety and Health Administration. (2016, March 25). Occupational exposure to respirable crystalline silica. *Federal Register*. Retrieved from <https://www.federalregister.gov/articles/2016/03/25/2016-04800/occupational-exposure-to-respirable-crystalline-silica>

is allowed an additional five-year extension for engineering controls, until June 23, 2021.¹⁰⁷⁵ The *New York Times* reported that safety experts have advocated for a tightening of silica exposure standards for the past forty years but that “progress was stymied for decades by resistance from affected companies and regulatory inaction.” The article reported that many oil and gas companies in particular were not meeting the current silica exposure standard. The new rules, when fully in effect, are estimated to save 600 lives and prevent 900 new cases of silicosis per year.¹⁰⁷⁶

- March 1, 2016 – University of Wisconsin anthropologist Thomas Pearson conducted in-depth interviews examining the impact of frack sand mining on sense of community, quality of life, and place in nearby residents. His findings indicated that the sudden influx of this heavy extractive industry has eroded residents’ sense of place and belonging and that these experiences are rarely taken into account by policymakers. Residents report “significant anxiety and stress from truck traffic, noise, light pollution, and uncertainty about environmental health impacts,” and distress caused by drastic changes to long-familiar landscapes over which they have no control. Pearson concluded that policymakers should pay closer attention to the uneven distribution of benefits and costs and “recognize that the costs go beyond quantifiable economic or environmental impacts.”¹⁰⁷⁷
- January 29, 2016 – The Institute for Wisconsin’s Health, Inc. released its Health Impact Assessment (HIA) on frack sand mining operations in western Wisconsin, prepared with the participation of 15 local and tribal health departments. According to the report, the HIA was a collaborative effort. The scope of the report was limited to the potential for community-level health effects of industrial sand mining in western Wisconsin. Regarding air quality, the report concluded that health effects from the impact of industrial sand mining on community-level air quality related to particulate matter are unlikely, and that it was also unlikely that community members would be exposed to respirable crystalline silica from industrial sand mining as currently regulated. Regarding water quality, the report concluded that contamination is possible; however, health effects were unlikely. Quality of life effects were likely, but variable.¹⁰⁷⁸ Though it was a “Level 1 Partner” for the report, the Ho-Chunk Nation responded to the HIA with criticism, writing, “we are disappointed with the conclusions drawn in the report, particularly in the section on air quality impacts, and we believe a more robust assessment of the air quality impacts is required before such conclusions can be drawn.” They wrote that the HIA failed to provide an accurate and complete analysis of the health threats posed by this

¹⁰⁷⁵ Occupational Safety and Health Administration. (2016, March 25). OSHA's Final Rule to protect workers from exposure to respirable crystalline silica. United States Department of Labor, Washington, DC. Retrieved from <https://www.osha.gov/silica/>

¹⁰⁷⁶ Meier, B. (2016, March 24). New rules aim to reduce silica exposure at work sites. *The New York Times*. Retrieved from http://www.nytimes.com/2016/03/24/business/new-rules-aim-to-reduce-silica-exposure-at-work-sites.html?_r=1

¹⁰⁷⁷ Pearson, T. (2016). Frac sand mining and the disruption of place, landscape, and community in Wisconsin. *Human Organization*, 75(1), 47-58. doi: <http://dx.doi.org/10.17730/0018-7259-75.1.47>

¹⁰⁷⁸ Boerner, A., Young, N., & Young, D. (2016). *Health impact assessment of industrial sand mining in western Wisconsin*. Institute for Wisconsin’s Health, Inc., Madison, WI. Retrieved from http://www.instituteforwihealth.org/uploads/1/2/7/8/12783470/iwhi_industrial_sand_w_covers.pdf

industry because of the limited scope, and “minimal discussion about fine particulate matter (or PM_{2.5}), which likely presents the biggest threat from industrial sand mining operations.¹⁰⁷⁹ As reported by Rochester, Minnesota’s *Post-Bulletin*, Crispin Pierce, director of University of Wisconsin-Eau Claire’s environmental public health program, “believes the study ignored important air quality data collected by university students at sand mining sites at Bloomer, New Auburn and Augusta during the past 18 months,” which he described as “the only work that looked at these fine particles.”¹⁰⁸⁰

- November 6, 2015 – According to findings from a pilot study led by Crispin Pierce (see entry above), levels of fine particulate matter (PM_{2.5}) are not being adequately measured near frack sand operations. Air monitors set up by Pierce and his team consistently showed higher readings than detections measured by Wisconsin’s DNR.¹⁰⁸¹ In some instances, PM_{2.5} levels exceeded the EPA guideline of 12 micrograms per cubic meter of air. In an accompanying news story, Pierce noted that the state’s air quality data largely comes from industry itself. “‘The DNR so far has continued to shy away from doing their own monitoring,’ he said. ‘The monitoring I’ve seen so far is inadequate. People aren’t looking at PM_{2.5}, and they really should be—from unbiased sources.’”¹⁰⁸²
- October 15, 2015 – *InsideClimate News* reported on the response of nearby communities to the “bust” cycle of the frack sand industry in Wisconsin and Minnesota. Reactions reported included ongoing concerns that the industry does not provide permanent economic prosperity. Municipalities and community organizations are using the lull to advance protections in advance of a possible upturn: “Towns in the region are also trying to strengthening their local zoning ordinances, such as adding rules to limit industrial noise and light pollution. In other cases, communities are trying to oust pro-sand advocates from office.”¹⁰⁸³
- June 30, 2015 – Because the amount of sand used per fracking well has increased, demand for silica sand by the oil and gas industry is still growing even though new drilling activity has taken a downturn. A global investment bank reported that fracking operations now require an average of 4.2 million pounds of sand per well. A few years

¹⁰⁷⁹ Ho-Chunk Nation. (2016, March 9). *Concerns about air quality impacts and human health remain after release of industrial sand mining Health Impact Assessment* [Press release]. Retrieved from <http://midwestadvocates.org/assets/resources/Frac%20Sand%20Mining/20160309HoChunkHIARelease.pdf>

¹⁰⁸⁰ Lindquist, E. (2016, February 4). Report downplays frac sand link to health troubles. *Post-Bulletin*. Retrieved from http://www.postbulletin.com/news/local/report-downplays-frac-sand-link-to-health-troubles/article_b3023c6c-fe74-5028-a7a4-6238fa035eaa.html

¹⁰⁸¹ Walters, K., Jacobson, J., Kroening, Z., & Pierce, C. (2015). PM_{2.5} Airborne particulates near frac sand operations. *Journal of Environmental Health* 78, 8-12.

¹⁰⁸² Schuessler, R. (2015, November 6). Wisconsin locals fear dust from mines for fracking sand even as boom wanes. *Aljazeera America*. Retrieved from <http://america.aljazeera.com/articles/2015/11/6/wisconsin-locals-fear-frac-sand-mining.html>

¹⁰⁸³ Hirji, Z. (2015, October 15). In fracking downturn, sand mining opponents not slowing down. *InsideClimate News*. Retrieved from <http://insideclimatenews.org/news/14102015/fracking-struggles-sand-mining-opponents-momentum-Minnesota-Wisconsin>

ago, silica sand comprised 9.5 percent of fracking fluid but now is closer to 20 percent. Further “rising intensity” of sand use is expected.¹⁰⁸⁴

- June 15, 2015 – An investigative report by *EnergyWire* documented self-reported health impacts among residents of southwestern Wisconsin who live near silica sand mining operations that service the fracking industry. Exposure to silica dust is a proven cause of silicosis and lung cancer. (See further entries on silica sand exposure among workers in the section, “Occupational Health and Safety Hazards.”) Residents near frack sand mine operations reported exposure to dust pollution and respiratory problems. Air monitoring data from the Wisconsin DNR showed that none of the state’s 63 active sand mines were in violation for particulate matter, but, as the author noted, the state measured particles only 10 micrometers in diameter or larger.¹⁰⁸⁵ Below this diameter, crystalline silica particles are small enough to bypass the body’s natural clearance mechanisms and are likely to lodge deep in the lungs where they can initiate scarring, autoimmune reactions, and tumor formation.¹⁰⁸⁶

Pipelines and compressor stations

There are more than 300,000 miles of natural gas transmission pipelines in the United States. They are serviced, every 40 to 100 miles, by compressor stations that maintain the pressure of the gas flowing through them. (Pump stations do the same for oil pipelines.) Compressor stations and pipelines are significant sources of air pollutants, including benzene and formaldehyde, constituting potential health risks to those living nearby while offering no economic benefits. Instead, they are associated with loss of tax revenue and economic development for the communities where they are sited and which they traverse. Pipelines and compressor stations vent methane into the atmosphere as part of routine maintenance operations and represent a climate risk. They are also accident prone. The Medical Society of the State of New York, the Massachusetts Medical Society, and the American Medical Association have each called for comprehensive health impact assessments regarding the health and safety risks associated with natural gas pipelines, which include fires, explosions, and leaks.

- March 4, 2019 – *E&E News* investigated accidents involving “gathering lines,” which are small diameter pipelines that carry oil or gas from wellheads to processing facilities. Nationally, there are 450,000 miles of gathering lines. However, only high-pressure gathering lines in urban areas are regulated, and these represent only 18,000 miles of

¹⁰⁸⁴ Chapa, S. (2015, June 30). Demand for sand: frac sand use per well goes up amid low oil prices. *San Antonio Business Journal*. Retrieved from <http://www.bizjournals.com/sanantonio/blog/eagle-ford-shale-insight/2015/06/demand-for-sand-frac-sand-use-per-well-goes-up.html>

¹⁰⁸⁵ King, P. (2015, June 15). Frac sand towns question whether rules protect them against silica pollution. *EnergyWire*. Retrieved from <http://www.eenews.net/stories/1060020192>

¹⁰⁸⁶ U.S. Department of Labor, Occupational Safety and Health Administration. (n.d.) Dust and its control. Retrieved from https://www.osha.gov/dsg/topics/silicacrystalline/dust/chapter_1.html

pipeline. The Pipeline and Hazardous Materials Safety Administration (PHMSA) has no rules for the rest. Nor do most states. Hence, it is not known how many fatalities have occurred due to explosions of gathering lines because no records are kept in rural areas. Rural gathering lines “don't have to be marked, built to standards or regularly inspected. Unlike for transmission lines, operators don't have to have emergency response plans for when they leak or explode.”¹⁰⁸⁷

- February 20, 2019 – During a polar vortex on January 30, 2019, a compressor station at an underground gas storage depot in Macomb County, Michigan was destroyed by an explosion after an equipment malfunction triggered emergency venting of gas. The extremely low temperatures prevented the methane plume from dispersing, and high winds pushed it along the ground until the gas encountered heat from another compressor station and exploded. The resulting gas shortage necessitated a statewide emergency call to residents and businesses to voluntarily turn down thermostats and reduce natural gas use. General Motors in Flint suspended operations for three days.¹⁰⁸⁸
- January 1, 2019 – As part of the planned Atlantic Bridge pipeline project, which will ferry fracked natural gas from New Jersey through New England and into Canada, Calgary-based Enbridge Inc. (formerly Spectra Energy) applied to site a 7,700-horsepower compressor station in Weymouth, Massachusetts, south of Boston. The Enbridge compressor station in Weymouth would maintain pipeline pressure needed to push the gas north to Maine and Canada. In 2016, the company offered the town \$47 million to drop its opposition to the plan, which would place the compressor station in a port area immediately adjacent to densely populated neighborhood, the highly utilized Fore River lift bridge, a power plant, a sewage pumping station, and a gas metering station. Instead, residents and local political leaders rejected this offer and demanded a Health Impact Assessment (HIA). Ordered by Governor Charlie Baker in July 2017 and released in January 2019, this study received considerable criticism from the public health community due to its deviation from standard HIA methodologies. The HIA showed that the Fore River Basin already suffered from levels of benzene, formaldehyde, and other air toxics that exceeded state guidelines for these carcinogens while concluding that adding another source of these same pollutants would have negligible impact on residents' health.^{1089, 1090} Shortly thereafter, the Massachusetts Department of Environmental Protection issued an air quality permit for the compressor station. This decision—and the HIA's conclusion on which it was based—was immediately contested

¹⁰⁸⁷ Lee, M., & Soraghan, M. (2019, March 4). Deadly pipelines, no rules. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060123021>

¹⁰⁸⁸ LeBlanc, B. (2019, February 20). Consumers CEO: Two natural gas plants still down after Jan. 30 fire. *Detroit News*. Retrieved from <https://www.detroitnews.com/story/news/local/michigan/2019/02/20/consumers-energy-two-plants-still-down-after-fire-emergency-appeal/2928041002/>

¹⁰⁸⁹ The Massachusetts Department of Environmental Protection, the Massachusetts Department of Public Health, & the Metropolitan Area Planning Council. (2019, January 1). Health Impact Assessment of a proposed natural gas compressor station in Weymouth, MA. Retrieved from <https://www.mass.gov/files/documents/2019/02/14/Health-Impact-Assessment-Weymouth-Final-Report.pdf>

¹⁰⁹⁰ Trufant, Jessica. (2019, January 11). Regulators issue air permit for Weymouth compressor station. *The Patriot Ledger*. Retrieved from <https://www.patriotledger.com/news/20190111/regulators-issue-air-permit-for-weymouth-compressor-station>

by independent public health researchers. In February 2019, Greater Boston Physicians for Social Responsibility (GBPSR) issued their own report on the health risks of the Weymouth compressor that outlined their concerns about the safety and emergency response hazards associated with the proposed compressor and rejected the “no health impact” conclusion of the HIA. While the HIA acknowledged that the residents of the Fore River Basin already experienced excess rates of lung disease, heart disease, and cancer, the GBPSR report argued that disproportionately health-burdened people “require greater, not lesser, environmental safeguards”^{1091, 1092} At this writing, the air quality permit, which was greenlighted by the HIA’s findings, is under appeal before the Massachusetts Department of Environmental Protection.

- December 18, 2018 – “Given that many pipelines transport volatile, flammable, or toxic oil and liquids, and given the potential consequences of a successful physical or cyber-attack, pipeline systems are attractive targets for terrorists, hackers, foreign nations, criminal groups, and others with malicious intent,” according to a report from the U.S. Government Accountability Office that urged the U.S. Department of Homeland Security’s Transportation Security Administration (TSA) to address weaknesses in its management of pipeline security. TSA oversees the physical security and cybersecurity of the more than 2.7 million miles of gas, oil, and hazardous liquid pipelines in the United States.¹⁰⁹³
- December 14, 2018 – The California Public Utilities Commission (CPUC) took action against Pacific Gas and Electric Company (PG&E) for what CPUC said are systemic violations of rules to prevent damage to natural gas pipelines during excavation activities. PG&E had been noncompliant with the law pertaining to the locating and marking of natural gas distribution pipelines, as well as related requirements to inform construction personnel and private persons on the location of PG&E’s underground pipes and other natural gas infrastructure in a timely and accurate manner.^{1094, 1095, 1096}
- December 10, 2018 – The Atlantic Coast Pipeline is a 600-mile project led by Dominion Energy that would extend from West Virginia to eastern North Carolina. Construction was halted when the U.S. Court of Appeals stayed a permit from the U.S. Fish and

¹⁰⁹¹ Greater Boston Physicians for Social Responsibility. (2019, February 7). Health risks of a proposed compressor station in Weymouth, Massachusetts. Retrieved from https://d279m997dpfwgl.cloudfront.net/wp/2019/02/GB-PSR-Report-on-Health-Risks-of-Proposed-Weymouth-Compressor-Station_Feb-7-2019.pdf

¹⁰⁹² Trufant, Jessica. (2019, February 7). Doctors’ group challenges report on Weymouth compressor station. Retrieved from <https://www.patriotledger.com/news/20190207/doctors-group-challenges-report-on-weymouth-compressor-station>

¹⁰⁹³ U.S. Government Accountability Office (GAO). (2018, December 18). *Critical infrastructure protection: Actions needed to address significant weaknesses in TSA’s Pipeline Security Program management*. GAO-19-48. Retrieved from <https://www.gao.gov/products/GAO-19-48>

¹⁰⁹⁴ California Public Utilities Commission (CPUC). (2018, December 14). Order instituting investigation and order to show cause. Retrieved from <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M246/K120/246120841.PDF>

¹⁰⁹⁵ California Public Utilities Commission (CPUC). (2018, December 14). CPUC opens case against PG&E for potential natural gas safety violations. Retrieved from <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M250/K897/250897740.PDF>

¹⁰⁹⁶ Gonzales, R. (2018, December 14). PG&E falsified gas pipeline safety records, regulators say. *NPR*. Retrieved from <https://www.npr.org/2018/12/14/677003961/pg-e-falsified-gas-pipeline-safety-records-regulators-say>

Wildlife Service that had authorized building the pipeline in critical habitat for four endangered species: the Indiana bat, the rusty-patched bumblebee, the clubshell mussel, and a shrimp-like crustacean called the Madison Cave isopod.¹⁰⁹⁷

- November 15, 2018 – An *E&E News* analysis of interstate pipeline enforcement found that interstate pipelines have caught fire or exploded 137 times since 2010. In 90 percent of those disasters, no fines were levied by PHMSA (the federal agency that directly regulates 350,000 miles of pipelines, more than 400 natural gas storage facilities, and 26 liquefied natural gas facilities). PHMSA’s reluctance to levy fines is a direct result of federal pipeline laws, which were largely drafted after 1994 when deregulation was a federal priority.¹⁰⁹⁸
- November 1, 2018 – A Russian team used a cartographic model to assess the potential impact on health and environment of compressor station emissions during scheduled outages and repairs. They described a method of gas flow redistribution that would obviate the need for large-scale venting of methane into the atmosphere.¹⁰⁹⁹
- October 11, 2018 – Overpressurizing a natural gas distribution system while replacing aging pipelines triggered 80 simultaneous natural gas explosions in Massachusetts’ Merrimack Valley on September 13, 2018. One teenager was killed, 23 were injured, 130 buildings were destroyed or damaged, and thousands evacuated from communities in Lawrence, Andover, and North Andover. The explosions cost Columbia Gas more than \$1 billion.¹¹⁰⁰
- September 10, 2018 – A landslide triggered by four days of intense rain caused a pipeline explosion that burned down a house in Beaver County, Pennsylvania and prompted evacuations. This pipeline, built by Energy Transfer Partners (which merged with Sunoco in 2017), was part of the Mariner 2 East Pipeline that is intended to carry the liquid hydrocarbon, ethane, to coastal ports where it will be exported for plastics manufacturing abroad. In western Pennsylvania, ethane co-occurs with methane in the shale bedrock and is released during fracking operations.^{1101, 1102, 1103}

¹⁰⁹⁷ Murawski, J. (2018, December 10). Atlantic Coast Pipeline construction halts as court reviews 4 endangered species. *Raleigh News and Observer*. Retrieved from <https://www.newsobserver.com/news/business/article222856155.html>

¹⁰⁹⁸ Soraghan, M. (2018, November 15). No penalties for 90% of pipeline blasts. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060106253>

¹⁰⁹⁹ Strizhenok, A. V., & Korelskiy, D. S. (2019). Estimation and reduction of methane emissions at the scheduled and repair outages of gas-compressor units. *Journal of Ecological Engineering*, 20(1), 46-51. Advance online publication. Retrieved from <https://doi.org/10.12911/22998993/93943>

¹¹⁰⁰ National Transportation Safety Board. (2018, October 11). Preliminary report pipeline: Over-pressure of a Columbia Gas of Massachusetts low-pressure natural gas distribution system. Retrieved from <https://www.nts.gov/investigations/AccidentReports/Pages/PLD18MR003-preliminary-report.aspx>

¹¹⁰¹ Mamula, K., & Litvak, A. (2018, September 10). Officials believe landslide may have triggered massive gas pipeline explosion in Beaver County. *Pittsburgh Post-Gazette*. Retrieved from <http://www.post-gazette.com/local/west/2018/09/10/gas-explosion-in-center-township-Beaver-County/stories/201809100067>

¹¹⁰² Litvak, A. (2018, October 27). Pipeline ruptures bring new scrutiny to Pennsylvania geology. *Pittsburgh Post-Gazette*. Retrieved from

- August 10, 2018 – A joint investigation by the *Charleston Gazette-Mail* and *ProPublica* found that pipeline operators continue to break environmental rules, and state and federal agencies continue to clear roadblocks to allow these projects to move forward despite serious unanswered questions.¹¹⁰⁴
- July 25, 2018 – The Attorneys General of six states (Massachusetts, Rhode Island, New Jersey, Maryland, Illinois, Washington) and the District of Columbia submitted comments to the Federal Energy Regulatory Commission (FERC) on how the Commission should revise its approach to certifying new natural gas transportation facilities. They recommended that the Commission assess need on a comprehensive, regional basis; consider environmental harm, including climate impacts that consider the social costs of carbon; and more heavily weigh the harm of eminent domain. They urged better incorporation of state and local land use policies. And they recommended that the Commission no longer issue partial notices to proceed with construction when rehearing requests are pending.¹¹⁰⁵
- May 24, 2018 – The Office of the Inspector General at the Department of Energy audited FERC’s Natural Gas Certification Process. It found that FERC lacked a consistent process for tracking public comments on proposed pipeline projects, suggesting that all comments might not be reviewed. “In the absence of a consistent methodology, we did not verify to what degree comments received by FERC were considered, aggregated, and reflected in the environmental documents or final orders for the certificate applications during our review,” the report concluded. “The lack of a consistent methodology could increase the risk that FERC may not address significant and impactful public comments in the environmental document or final order.”^{1106, 1107}
- May 16, 2018 – A team of researchers in Alberta, Canada investigated how noise from natural gas compressor stations and oil wells affected the behavior and communication of

<https://apnews.com/2e0005ec7db342a290199a4d8464b5a0?fbclid=IwAR0URr9dtHnpoe7YkokfOOVDUcyVdmeXejjUgVSIaYoY5gZH6Olm394NMkU>

¹¹⁰³ Litvak, A. (2018, September 14). Who gets to say where it's safe to build a pipeline? *Pittsburgh Post-Gazette*. Retrieved from <https://www.post-gazette.com/business/powersource/2018/09/14/Who-gets-to-say-where-it-s-safe-to-build-a-pipeline-natural-gas-beaver-county-explosion-DEP-Pennsylvania/stories/201809140058>

¹¹⁰⁴ Mishkin, K., & Ward Jr., K. (2018, August 10). What happens when a pipeline runs afoul of government rules? Authorities change the rules. *ProPublica*. Retrieved from <https://www.propublica.org/article/west-virginia-halted-mountain-valley-pipeline>

¹¹⁰⁵ Comments of the Attorneys General of Massachusetts, Illinois, Maryland, New Jersey, Rhode Island, Washington, and the District of Columbia. FERC Docket PL18-1-000. (2018, July 25). Certification of New Interstate Natural Gas Facilities. Retrieved from <https://www.mass.gov/files/documents/2018/07/26/Multistate%20Comments-FERC%201999%20PL%20Policy%20Review.pdf>

¹¹⁰⁶ McKenna, P. (2018, May 31). Public comments on pipeline plans may be slipping through cracks at FERC, audit says. *Inside Climate News*. Retrieved from <https://insideclimatenews.org/news/31052018/public-comments-oil-gas-pipelines-ferc-review-energy-department-inspector-general-audit>

¹¹⁰⁷ The Office of the Inspector General at the Department of Energy. (2018, May 24). *The Federal Energy Regulatory Commission’s Natural Gas Certification Process*. Audit Report: DOE-OIG-18-33. Retrieved from <https://www.energy.gov/ig/downloads/audit-report-doe-oig-18-33>

Savannah sparrows (*Passerculus sandwichensis*). The results showed that alarm responses and feeding visits were impaired by noise-producing infrastructure. Savannah sparrows were less vigilant when provisioning nestlings and distracted from their reproductive tasks when in the vicinity of compressor stations. “Our observation that Savannah sparrows are less responsive to anti-predator signals in the vicinity of natural gas compressor stations is of conservation concern and adds to a growing body of evidence that noisy anthropogenic structures have the potential to negatively affect birds by interfering with acoustic communication.”¹¹⁰⁸ Previous research in the same region found that the Savannah sparrow altered its song structure and song features when exposed to noise from oil and gas infrastructure, including compressor stations, and that these noise-altered songs were less effective at provoking responses from other birds.¹¹⁰⁹¹¹¹⁰ Similarly, researcher working in the San Juan Basin of New Mexico found that chronic noise from drilling and fracking operations, including compressor stations, affected levels of stress hormones in songbirds and masked critical acoustic cues in ways that decreased the birds’ ability to survive and reproduce.^{1111, 1112}

- April 26, 2018 – Studies that investigate the health impacts of drilling and fracking activities typically incorporate the distance between participants’ home addresses and well pads and do not consider potential exposures to emissions from other ancillary pieces of infrastructure. A study led by Johns Hopkins University researchers working in Pennsylvania attempted to develop exposure metrics for air emissions from compressor stations, flare stacks, and impoundments. The research team identified 457 compressor stations in Pennsylvania and 1419 compressor station engines. Data on compressor stations engines were not available electronically, and only 361 stations could be confirmed as operational. The team found that compressor engines, impoundments, and flaring events are all potential sources of emissions related to drilling and fracking that have not previously been accounted for in epidemiological studies “in part because data are not readily available. The value of including these additional sources of information on [fracking], particularly in health studies, remains unknown.”¹¹¹³

¹¹⁰⁸ Antze, B., & Koper, N. (2018). Noisy anthropogenic infrastructure interferes with alarm responses in Savannah sparrows (*Passerculus sandwichensis*). *Royal Society Open Science*, 5, 172168. doi: 10.1098/rsos.172168

¹¹⁰⁹ Warrington, M. H., Curry, C. M., Antze, B., & Koper, N. (2018). Noise from four types of extractive energy infrastructure affects song features of Savannah Sparrows. *The Condor: Ornithological Applications*, 120(1), 1-15. Advance online publication. Retrieved from <https://bioone.org/journals/the-condor/volume-120/issue-1/CONDOR-17-69.1/Noise-from-four-types-of-extractive-energy-infrastructure-affects-song/10.1650/CONDOR-17-69.1.short>

¹¹¹⁰ Curry, C. M., Des Brisay, P. G., Rosa, P., & Koper, N. (2018). Noise source and individual physiology mediate effectiveness of bird songs adjusted to anthropogenic noise. *Scientific Reports*, 8(1), 3942. doi: 10.1038/s41598-018-22253-5

¹¹¹¹ Kleist, N. J., Guralnick, R. P., Cruz, A., Lowry, C. A., & Francis, C. D. (2018). Chronic anthropogenic noise disrupts glucocorticoid signaling and has multiple effects on fitness in an avian community. *PNAS*, 115(4), E648-E657. doi: 10.1073/pnas.1709200115

¹¹¹² University of Colorado at Boulder. (2018, January 8). Noise from oil and gas operations stresses birds, hinders reproduction. *AAAS EurekAlert*. Retrieved from https://www.eurekalert.org/pub_releases/2018-01/uoca-nfo010318.php

¹¹¹³ Koehler, K., Ellis, J. H., Casey, J. A., Manthos, D., Bandeen-Roche, K., Platt, R., & Schwartz, B. S. (2018). Exposure assessment using secondary data sources in unconventional natural gas development and health studies. *Environmental Science & Technology*, 52, 6061-6069. doi: 10.1021/acs.est.8b00507

- April 26, 2018 – Pipelines are inspected and cleaned through a process called pigging, in which devices are placed inside, and travel through, the pipe. Pigs can be used to force water or air through a pipeline, check for obstructions, detect leaks, scrape debris from the pipe wall, prevent corrosion, or apply coatings. Pigging is necessarily accompanied by venting of hydrocarbon gases into the air, including methane. A federal settlement acknowledged that the use of the maintenance pigging technique is a major source of harmful emissions in pipeline systems carrying fracked gas extracted from shale that also contains other hydrocarbons, such as natural gas liquids. “The settlement between the U.S. Department of Justice, Environmental Protection Agency and Pennsylvania Department of Environmental Protection and two MarkWest subsidiaries ... alleges the company failed to apply for or comply with air pollution permits. As a result, the company unlawfully vented hundreds of tons of natural gas and volatile organic compounds.”¹¹¹⁴
- October 12, 2017 – Researchers at University of Albany’s Institute for Health and the Environment prepared a 300-page technical report on the health effects of the emissions from 18 natural gas compressor stations in New York State. The team found that, collectively, these sites released 40 million pounds of 70 different contaminants over a seven-year period, making natural gas compressor stations the seventh largest point source of air pollution in the state. By volume, the largest emissions were nitrogen oxides, carbon monoxide, volatile organic compounds (VOCs), formaldehyde, and particulate matter. Exposure to these chemicals is linked to cancer, as well as cardiovascular, neurological, and developmental disorders. The authors noted, “The potential health impacts of the large volumes of pollutants generated by natural gas compressor stations have not been addressed, let alone answered, by those arguing for their construction and expansion.”¹¹¹⁵
- October 11, 2017 – A study of airborne methane emissions from assorted components of natural gas infrastructure in California, including compressor stations and storage facilities, confirmed earlier studies in finding widely variable leakages. The results suggested that a significant fraction of the methane emitted from storage facilities may, in fact, be escaping from their associated compressor stations.¹¹¹⁶
- July 17, 2017 – A comprehensive investigation of the pipeline approval process by the Center for Public Integrity, *StateImpact Pennsylvania*, and National Public Radio found that FERC, which is charged with ensuring the public’s interest, routinely assesses need based on company filings and functions as an agency captured by industry interests, concluding, “at every turn, the agency’s process favors the pipeline companies.” The

¹¹¹⁴ Patterson, B. (2018, April 26). MarkWest agrees to pay millions in federal settlement over 'pig' emissions. *West Virginia Public Broadcasting*. Retrieved from <https://www.wvpublic.org/post/markwest-agrees-pay-millions-federal-settlement-over-pig-emissions#stream/0>

¹¹¹⁵ Russo, P. N., & Carpenter, D. O. (2017, October 12). *Health effects associated with stack chemical emissions from NYS natural gas compressor stations, 2008-2014*. Retrieved from https://www.albany.edu/about/assets/Complete_report.pdf

¹¹¹⁶ Mehrotra, S., Faloona, I., Suard, M., Conley, S., & Fischer, M. L. (2017). Airborne methane emission measurements for selected oil and gas facilities across California. *Environmental Science & Technology* 51(21), 12981–12987. doi: 10.1021/acs.est.7b03254

result, according to this analysis of more than 500 pipeline cases, is that the financial interests of the gas industry, and not market demand or public necessity, is driving the ongoing pipeline build-out. In some cases, utility companies have complex financial ties to the pipeline companies that service them.¹¹¹⁷ Continuing this investigation, *InsideClimate News* then reviewed several large, new pipeline proposals in the Marcellus and Utica Shale regions, focusing on joint ventures and interlocking financial relationships between customers (state-regulated utilities) and suppliers (pipeline companies). Affiliate agreements that allow parent companies of utilities to seek federal certificates for interstate pipelines—which typically allow a 14 percent return on equity—contribute to the ongoing frenzy of pipeline construction even when natural gas demand is flat. Existing pipelines, the investigation noted, run at only slightly more than half capacity.¹¹¹⁸

- July 12, 2017 – A Canadian study found that oil and gas infrastructure, including compressor stations, contributes to habitat fragmentation and increases parasitism by cowbirds on Savannah sparrow nests in the Northern Great Plains. Populations of North American grassland songbirds, including the Savannah sparrow, are declining precipitously, mostly due to habitat loss and degradation. These results suggest that “brood parasitism associated with oil and natural gas infrastructure may result in additional pressures that reduce the productivity of this declining grassland songbird.”¹¹¹⁹
- May 16, 2017 – An analysis of records from state agencies revealed that low-pressure flow lines at oil and gas well sites are responsible for more than 7,000 spills, leaks, and accidents since 2009. Flow lines carry oil, gas, or wastewater from scattered pieces of equipment within a production site. Other than in New Mexico, operators are not required to report gas leaks from flow lines. A fatal explosion in April 2017 in a Firestone, Colorado home built on top of an oil field was triggered when an abandoned flow line seeped gas into a basement where it ignited. Two people were killed and one person was badly injured. Soon after, Colorado Governor John Hickenlooper ordered a statewide review of all oil and gas lines located near occupied buildings. Preliminary data showed that 16,000 wells across Colorado have flow lines that lie within 1,000 feet of homes. Corrosion is a leading cause of flow line failures.^{1120, 1121}

¹¹¹⁷ Lombardi, K., & Hopkins, J. S. (2017, July 17). Natural gas building boom fuels climate worries, enrages landowners. *NPR.org*. Retrieved from

<http://www.npr.org/2017/07/17/536708576/natural-gas-building-boom-fuels-climate-worries-enrages-landowners>

¹¹¹⁸ McKenna, P. (2007, August 3). Pipeline payday: How builders win big, whether more gas is needed or not. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/02082017/natural-gas-pipeline-boom-corporate-profit-bubble-limited-demand-climate-emissions>

¹¹¹⁹ Bernath-Plaisted, J., Nenner, H., & Koper, N. (2017). Conventional oil and natural gas infrastructure increases brown-headed cowbird (*Molothrus ater*) relative abundance and parasitism in mixed-grass prairie. *Royal Society Open Science*, 4(7), 170036. doi: 10.1098/rsos.170036

¹¹²⁰ Soraghan, M. (2017, May 16). Flow lines cited in more than 7K spills. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060054568>

¹¹²¹ Lee, M. (2017, June 12). Fatal explosion threatens more upheaval over drilling in Colo. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060055846>

- February 15, 2017 – A team of researchers from University of Texas investigated emissions from natural gas compressor stations throughout Pennsylvania and New York. They found that compressors emitted highly variable plumes of methane that spread downwind and were measurable a full mile away at levels that could expose nearby residents, especially during temperature inversions. The researchers concluded, “Our data indicate that compressor stations are likely sources of methane emissions and presumably co-emitted air contaminants, and can sporadically/episodically emit methane at relatively high levels...if such facilities are to be permitted to release specified amounts of contaminants, those amounts should be actively measured and verified. Without measurement there can be no assurance that permit conditions are being met.”¹¹²²
- November 30, 2016 – A CityLab investigation used data from the Pipeline and Hazardous Materials Safety Administration to map all significant U.S. pipeline accidents between 1986 and 2016 and concluded, “wherever pipelines are extended, deadly accidents will follow.” Pipeline accidents over the past 30 years have resulted in 548 deaths, more than 2,500 injuries, and over \$8.5 billion in damages. Accidents are particularly common in Texas and Louisiana.¹¹²³
- July 5, 2016 – The National Energy Board, Canada’s pipeline watchdog, gave two of Canada’s largest pipeline companies six months to fix severe deficiencies in pipelines, ultimately issuing an emergency safety order in February 2016. Newly released federal documents showed that Texas-based Kinder Morgan and Alberta-based Enbridge were both looking into the use of defective parts purchased from Thailand-based Canadoil Asia that recently went bankrupt. U.S. regulators warned of these deficiencies eight years prior. At least one Canadian pipeline with defective materials exploded during that period.¹¹²⁴
- June 10, 2016 – EPA Region 2 submitted comments to FERC on Docket Nos. PFI6-3, Eastern System Upgrade Project, which includes new natural gas compressor stations in Hancock and Highland, New York. The EPA submission suggested an analysis of whether this project was needed; clarification of what is meant by a loop system; evaluation of alternatives; a comprehensive analysis of cumulative, indirect, and secondary impacts; information on greenhouse gas emissions and climate change impacts; a Health Impact Assessment; the inclusion of all pollution prevention practices; and a consideration of environmental justice concerns.¹¹²⁵ The company agreed to provide funding toward a health study but wished to retain the ability to determine the

¹¹²² Payne, B. F., Ackley, R., Wickler, A. P., Hildenbrand, Z., Carlton, Jr., D. D., & Schug, K. A. (2017). Characterization of methane plumes downwind of natural gas compressor stations in Pennsylvania and New York. *Science of the Total Environment*, 580, 1214-21. doi: 10.1016/j.scitotenv.2016.12.082

¹¹²³ Joseph, G. (2016, November 30). 30 years of oil and gas pipeline accidents, mapped. *CityLab*. Retrieved from <https://www.citylab.com/environment/2016/11/30-years-of-pipeline-accidents-mapped/509066/>

¹¹²⁴ De Souza, M. (2016, July 5). How Canada’s pipeline watchdog secretly discusses ‘ticking time bombs’ with industry. *National Observer*. Retrieved from <http://www.nationalobserver.com/2016/07/05/news/how-canada%E2%80%99s-pipeline-watchdog-secretly-discusses-ticking-time-bombs-industry>

¹¹²⁵ EPA Region 2. (2016, June 10). Docket Nos. PFI6-3, Eastern System Upgrade Project (comments). Retrieved from https://elibrary.ferc.gov/idmws/file_list.asp?document_id=14468753

study parameters.¹¹²⁶ Skeptical of the health study's funding and parameters, residents and potentially impacted towns objected to the company's dismissal of the towns' laws prohibiting the construction and operation of heavy industrial use facilities. The Deputy Supervisor of one of the affected towns "said he was encouraged by the federal Environmental Protection Agency's comments on the project's preliminary federal application. He said the EPA concerns were 'the same as ours.'"¹¹²⁷

- April 27, 2016 – In its report on two natural gas pipeline expansion projects in Appalachia, the Institute for Energy Economics and Financial Analysis demonstrated that the Atlantic Coast and Mountain Valley pipelines are “emblematic of the risks that such expansion creates for ratepayers, investors and landowners.” The report concluded that pipelines out of the Marcellus and Utica region are being overbuilt, putting ratepayers at risk of paying for excess capacity, landowners at risk of losing their property to unnecessary projects, and investors at risk of loss. The report stated that FERC facilitates this building of excess pipeline capacity and its approach for assessing need is insufficient.¹¹²⁸
- April 22, 2016 – The federal Agency for Toxic Substances and Disease Registry (ATSDR) released a report on air quality near a natural gas compressor station in Brooklyn Township, Susquehanna County, Pennsylvania, finding levels of fine particulate matter (PM2.5) at levels that can damage human health in those with long-term exposure. Evaluating data from an 18-day EPA field air monitoring event, the report found that the average ambient 24-hour PM2.5 concentration observed at one residence (19 µg/m3) was higher than the nearest regional National Ambient Air Quality Standards (NAAQS) monitoring station (12.3 µg/m3) in Scranton, PA, over the same period. ATSDR concluded that there was evidence that long-term exposure to PM2.5 at the levels found can cause an increase in mortality, respiratory problems, hospitalizations, preterm births, and low birth weight. The agency said that in the short term, exposure could be harmful to sensitive populations, such as those with respiratory problems or heart disease. The agency recommended that sensitive individuals monitor air quality and limit activity accordingly, and that the PA DEP work to reduce other sources of PM and its precursors.¹¹²⁹
- April 3, 2016 – The Southwest Pennsylvania Environmental Health Project issued a *Technical Report* in response to the January 29, 2016 federal ATSDR report on the Brigich compressor station in Chartiers Township, Washington County, Pennsylvania.

¹¹²⁶ Mayer, F. (2016, April 27). Millennium to pay for health study. *River Reporter*. Retrieved from <http://www.riverreporter.com/news/4302/2016/04/27/millennium-pay-health-study>

¹¹²⁷ Julse, D. (2016, June 22). Highland concerned about study underfunding. *River Reporter*. Retrieved from <http://www.riverreporter.com/news/4302/2016/06/22/highland-concerned-about-study-underfunding>

¹¹²⁸ Kunkel, C., & Sanzillo, T. (2016). *Risks associated with natural gas pipeline expansion in Appalachia*. The Institute for Energy Economics and Financial Analysis. Retrieved from http://ieefa.org/wp-content/uploads/2016/04/Risks-Associated-With-Natural-Gas-Pipeline-Expansion-in-Appalachia-_April-2016.pdf

¹¹²⁹ Agency for Toxic Substances and Disease Registry. (2016, April 22). *Health Consultation: Brooklyn Township PM2.5, Brooklyn Township, Susquehanna County, Pennsylvania*. U.S. Department of Health and Human Services, Atlanta, GA. Retrieved from http://www.atsdr.cdc.gov/HAC/pha/BrooklynTownship/BrooklynTwnsp_pm2-5_HC_Final_04-22-2016_508.pdf

ATSDR detected chemicals that had been reported at gas sites previously, and this confirmation of their presence provided “an important acknowledgement that neighbors of such facilities are being exposed (often at very close range) to chemicals that bring with them the possibility of short- and long-term health effects.” The report stated that, in conjunction with the monitoring work of the EPA, ATSDR “provided a solid set of data.” However, due to the limitations of the methodologies available to them, the authors were “concerned that there was, in the end, an underestimate of risk to community members.”¹¹³⁰

- April 1, 2016 – Kinder Morgan, the largest energy infrastructure company in North America, suspended construction of a \$1 billion pipeline project that would have carried gasoline and diesel fuel across the southeastern United States. Construction was suspended after landowners protested the seizure of their property, a Georgia Superior Court judge upheld a decision denying a certificate that would have allowed the company to use eminent domain, and the state legislature passed legislation to block the property seizure.¹¹³¹
- March 26, 2016 – According to a Boston University-led study, fugitive emissions from urban natural gas pipeline systems were the largest anthropogenic source of the greenhouse gas methane in the United States and contribute to the risk of explosions in urban environments, with 15 percent of leaks qualifying as potentially explosive.¹¹³² “All leaks must be addressed, as even small leaks cannot be disregarded as ‘safely leaking,’” concluded the report authors. In an interview with *InsideClimate News*, the lead author said that in addition to weighing the safety risks from gas leaks, regulators and utility companies must also consider the climate impact of leaks when determining priorities for repairing and replacing pipes.¹¹³³
- March 7, 2016 – A lawsuit filed against FERC in U.S. District Court in Washington, D.C. challenged the agency’s relationship with industry, reported *Penn Live*: “The suit accuses the commission of regulatory capture, a situation in which corporations control regulators.” FERC receives all of its funding from the energy companies that it regulates and had never rejected a pipeline plan, which, according to the complainant, demonstrates “clear bias and corruption.”¹¹³⁴

¹¹³⁰ Southwest Pennsylvania Environmental Health Project. (2016, April 3). ATSDR releases investigation of Pennsylvania compressor station. *Response to Governmental Action and Publication, 1*. Retrieved from <http://www.environmentalhealthproject.org/resources/research-factsheets>

¹¹³¹ McKenna, P. (2016, April 1). Property rights outcry stops billion-dollar pipeline project in Georgia. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/01042016/palmetto-pipeline-kinder-morgan-georgia-eminent-domain-oil-gas-republicans>

¹¹³² Hendrick, M. F., Ackley, R., Sanaie-Movahed, B., Tang, X., & Phillips, N.G. (2016). Fugitive methane emissions from leak-prone natural gas distribution infrastructure in urban environments. *Environmental Pollution, 213*, 710–716. doi:10.1016/j.envpol.2016.01.094

¹¹³³ McKenna, P. (2016, March 31). Methane hazard lurks in Boston's aging, leaking gas pipes, study says. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/30032016/boston-natural-gas-pipelines-leaking-methane-climate-change-explosion>

¹¹³⁴ Pynes, M. (2016, March 7). Federal agency funded by energy industry has never rejected a pipeline plan. *PennLive.com*. Retrieved from http://www.pennlive.com/news/2016/03/pipeline_fights_raise_big_ques.html#incart_article_small

- February 26, 2016 – Congressman Chris Gibson (NY-19), in response to citizen concerns, sent a letter to FERC regarding the proposed 41,000-horsepower compressor station in southern Rensselaer County, New York, part of the Northeast Energy Direct (NED) pipeline project. He discussed the inadequacy of federal exposure standards with regard to exposures at compressor sites and lack of medical expertise in these decisions. He requested public health expertise on all Environmental Assessment and Environmental Impact Statement teams, an independent panel to review the federal exposure standards around compressor stations, and “a transparent and effective review process.”¹¹³⁵ His call was supported by other elected officials, as well as public health researcher David O. Carpenter, MD, who has studied compressor station pollutants.¹¹³⁶
- January 29, 2016 – ATSDR, in collaboration with the EPA Region 3 Air Protection Division, conducted an exposure investigation to evaluate exposures of residents living near the Brigich natural gas compressor station in Chartiers Township, Washington County, Pennsylvania. ATSDR concluded that, although exposure to the levels of chemicals detected in the ambient air was not expected to harm the health of the general population, “some sensitive subpopulations (e.g., asthmatics, elderly) may experience harmful effects from exposures to hydrogen sulfide and PM 2.5 [and] [s]ome individuals may also be sensitive to aldehyde exposures, including glutaraldehyde.” According to ATSDR, one of the study’s limitations was that the sampling “may not have adequately captured uncommon but significant incidents when peak emissions (e.g. unscheduled facility incidents, blowdowns or flaring events) coincide with unfavorable meteorological conditions (e.g. air inversion).” ATSDR recommendations included reducing exposures to the chemicals of concern to protect sensitive populations, continued collection of emissions data for long-term and peak exposures, and air modeling to better understand ambient air quality.¹¹³⁷
- December 8, 2015 – The Niagara County Legislature, following the recommendations of the Medical Society of the State of New York, called for a Health Impact Assessment (HIA) on natural gas infrastructure, including compressor stations, and co-hosted a conference in Albany on the Medical Society’s health findings. A compressor station with twin compressors, part of the “2016 Northern Access Plan” to transfer gas from Pennsylvania to Canada, is proposed for the county.¹¹³⁸

¹¹³⁵ Gibson, C. (2016, February 26). Compressor station needs review. *Sullivan County Democrat*. Retrieved from <http://scdemocratonline.com/webpages/letterdetail.aspx?id=9f047d33-ba32-4027-883b-ff2e457ebb7a>

¹¹³⁶ Nearing, B. (2016, March 31). Gibson: Federal natural gas air pollution safety standards may be obsolete. *Albany Times Union*. Retrieved from <http://www.timesunion.com/business/article/Gibson-Federal-natural-gas-air-pollution-safety-7221271.php>

¹¹³⁷ Agency for Toxic Substances and Disease Registry. (2016, January 29). *Health Consultation: Exposure Investigation, Natural Gas Ambient Air Quality Monitoring Initiative Brigich Compressor Station, Chartiers Township, Washington County, Pennsylvania*. Retrieved from http://www.atsdr.cdc.gov/HAC/pha/Brigich_Compressor_Station/Brigich_Compressor_Station_EI_HC_01-29-2016_508.pdf

¹¹³⁸ Staff. (2015, December 8). County lawmakers call for study on compressor health risks. *Lockport Union-Sun & Journal*. Retrieved from http://www.lockportjournal.com/news/local_news/county-lawmakers-call-for-study-on-compressor-health-risks/article_932989cd-058a-594f-9ef2-e52827db85a6.html

- November 9, 2015 – Following the 2010 heavy oil spill in Michigan’s Kalamazoo River, Congress ordered an audit that spotlighted the industry’s poor record of spotting leaks. *Politico* reported on the 2015 regulatory structure ultimately unveiled in response, determining the proposal “fails to patch that hole in the nation’s pipeline safety net.” “While the agency’s proposed rule expands the number of pipelines that must have a leak-detection system in place, it sets no basic standards for how well that technology should work. Instead, safety advocates say, it lets pipeline operators decide for themselves whether they are adequately prepared.”¹¹³⁹
- October 16, 2015 – The EPA urged FERC to consider “whether the Northeast Energy Direct pipeline could be combined with other projects, rather than constructing a new system that would have a host of environmental impacts,” reported Oneonta, New York’s *Daily Star*. The EPA also advised “that the gas demand addressed by NED’s application could be met by renewable forms of energy such as solar and wind power...”¹¹⁴⁰ (Note: Kinder Morgan withdrew its NED pipeline application in April 2016.)
- September 17, 2015 – At a shale gas conference, industry representatives espoused the construction of new pipelines as necessary to re-invigorate the gas industry in the Marcellus. Speakers noted that FERC approval can be expected to now take longer, by about six months, blaming environmental groups for the delays.¹¹⁴¹
- September 9, 2015 – New pipelines are failing at a rate on par with gas transmission lines installed before the 1940s, according to an analysis of federal data by the Pipeline Safety Trust, reported by *S&P Global Market Intelligence*. “The gas transmission lines installed in the 2010s had an annual average incident rate of 6.64 per 10,000 miles over the time frame considered, even exceeding that of the pre-1940s pipes. Those installed prior to 1940 or at unknown dates had an incident rate of 6.08 per 10,000 miles.” The director of the National Transportation Safety Board’s Office of Railroad, Pipeline and Hazardous Materials Investigations “agreed that the rapid construction of pipelines in the U.S. is likely a contributing factor.”¹¹⁴²
- August 18, 2015 – Houston Advanced Research Center (HARC) scientists addressed “the commonly acknowledged sources of uncertainty which are the lack of sustained monitoring of ambient concentrations of pollutants associated with gas mining, poor quantification of their emissions, and inability to correlate health symptoms with specific emission events.” They concluded that “more contemporary monitoring and data analysis techniques should take the place of older methods to better protect the health of nearby

¹¹³⁹ Schor, E. (2015, November 9). The hole in Obama’s pipeline safety plan. *Politico*. Retrieved from <http://www.politico.com/story/2015/11/obama-pipeline-safety-plan-oil-215617>

¹¹⁴⁰ Mahoney, J. (2015, October 16). EPA: Can local pipeline plans merge? *Daily Star*. Retrieved from http://www.thedailystar.com/news/local_news/epa-can-local-pipeline-plans-merge/article_f2836510-a96b-5c2d-9892-755b94b1f640.html?mode=jqm

¹¹⁴¹ Packel, D. (2015, September 17). Energy honchos lament FERC pipeline approval delays. *Law 360*. Retrieved from <http://www.law360.com/publicpolicy/articles/697120/energy-honchos-lament-ferc-pipeline-approval-delays>

¹¹⁴² Smith, S. (2015, September 9). As US rushes to build gas lines, failure rate of new pipes has spiked. *SNL Financial*. Retrieved from <https://www.snl.com/InteractiveX/Article.aspx?cdid=A-33791090-11060>

residents and maintain the integrity of the surrounding environment.” “Real-time mobile monitoring, microscale modeling and source attribution, and real-time broadcasting of air quality and human health data over the World Wide Web” have been demonstrated, they wrote, by past, current, and planned future monitoring studies in the Barnett and Eagle Ford shale regions.¹¹⁴³ Founded as a technology incubator in 1982 by Houston oilman George P. Mitchell, HARC later re-aligned to focus on sustainable development.

- August 14, 2015 – HARC scientists found that port operations involving petrochemicals may significantly increase emissions of air toxics, including peaks of carcinogenic benzene of up to 37 ppb. The scientists matched the benzene spikes with pipeline systems. The spikes were at levels much higher than those reported in the EPA’s 2011 National Emissions Inventory. The authors recommended the use of updated methods for ambient monitoring.¹¹⁴⁴ Lead scientist Jay Olaguer said in a related interview that “government regulators should wake up to the reality of the situation, that their methods of tracking air pollution need to be updated so that the samples are taken in real time and can catch it when toxic vapors of this magnitude are released.”¹¹⁴⁵
- July 15, 2015 – Rensselaer County lawmakers passed a resolution asking the state of New York to freeze the approval process for the Northeast Energy Direct pipeline—which would carry fracked gas from Pennsylvania to Boston—until it conducts a comprehensive health impact assessment for natural gas pipelines.¹¹⁴⁶
- July 8, 2015 – Researchers from West Virginia University completed leak and loss audits for methane emissions at three natural gas compressor stations and two natural gas storage facilities, with a “leak” defined as an unintended release of natural gas due to malfunction of a component, and a “loss” defined as an intended release of natural gas. In terms of frequency, most emissions were leaks, but on a mass basis, losses were the dominant source of methane emissions (88 percent). The top loss emitters were engine exhausts (accounting for nearly half), packing vents, and slop tanks. Emissions from compressor blowdowns were not included.¹¹⁴⁷ A related study by a University of Houston

¹¹⁴³ Olaguer, E. P., Erickson, M., Wijesinghe, A., Neish, B., Williams, J., & Colvin, J. (2015). Updated methods for assessing the impacts of nearby gas drilling and production on neighborhood air quality and human health. *Journal of the Air & Waste Management Association*, 66, (2), 173-183. doi: 10.1080/10962247.2015.1083914

¹¹⁴⁴ Olaguer, E. P., Erickson, M. H., Wijesinghe, A., & Neish, B. S. (2015). Source attribution and quantification of benzene event emissions in a Houston ship channel community based on real-time mobile monitoring of ambient air. *Journal of the Air & Waste Management Association*, 66, (2), 164-172. doi: 10.1080/10962247.2015.1081652

¹¹⁴⁵ Wray, D. (2016, February 23). Scientists discover pipelines belching benzene in East Houston. *Houston Press*. Retrieved from <http://www.houstonpress.com/news/scientists-discover-pipelines-belching-benzene-in-east-houston-8181569>

¹¹⁴⁶ Nearing, B. (2015, July 15). County: Put study before any permit. *Albany Times-Union*. Retrieved from <http://www.timesunion.com/news/article/County-Put-study-before-any-permit-6387404.php>

¹¹⁴⁷ Johnson, D. R., Covington, A. N., & Clark, N. N. (2015). Methane emissions from leak and loss audits of natural gas compressor stations and storage facilities. *Environmental Science & Technology*, 49, 8132-8138. doi: 10.1021/es506163m

team found that emission rates from compressor stations in Texas' Barnett Shale were far higher than from well pads.^{1148, 1149}

- July 7, 2015 – Seeking a method to bridge the gap between bottom-up and top-down methods of measuring methane emissions, Purdue University, University of Houston, the National Oceanic and Atmospheric Administration (NOAA), Environmental Defense Fund, and independent researchers surveyed eight high-emitting point sources in the Barnett Shale using an aircraft-based “mass balance” approach. Results from four gas processing plants and one compressor station highlighted the importance of addressing methane “super-emitters” and confirmed that self-reports from the Greenhouse Gas Reporting Program underestimated actual emission rates by a factor of 3.8 or higher, due to “underestimated facility emissions, temporal variability of emissions, and the exclusion of nonreporting facility emissions.”¹¹⁵⁰
- July 7, 2015 – Using relatively easy-to-acquire and inexpensive stable isotopic and alkane ratio tracers, researchers are now able to distinguish methane arising from natural gas production and transport from agricultural and urban methane sources, and, in addition, to distinguish between methane released from shale gas as opposed to conventional wells. Initial research from the University of Cincinnati, University of California at Irvine, and the Environmental Defense Fund found that methane in the Barnett Shale hydraulic fracturing region near Fort Worth, Texas, represents a complex mixture of these sources. This new approach, used for ground-level measurements, can complement and extend top-down approaches, allowing for more accurate inventories of thermogenic and biogenic sources of methane emissions.¹¹⁵¹
- July 1, 2015 – In New York State, Schoharie County supervisors and medical professionals demanded comprehensive health impact assessments as a precondition for permitting natural gas pipelines and compressor stations.¹¹⁵²
- June 12, 2015 – The Agency for Toxic Substances and Disease Registry investigated the health effects of ruptured gas pipelines in an analysis of data in a database on acute petroleum-related releases to which seven states contribute (Louisiana, New York, North Carolina, Oregon, Tennessee, Utah, and Wisconsin). From 2010 to 2012, there were

¹¹⁴⁸ Lan, X., Talbot, R., Laine, P., & Torres, A. (2015). Characterizing fugitive methane emissions in the Barnett Shale area using a mobile laboratory. *Environmental Science & Technology*, 49, 8139-8146. doi: 10.1021/es5063055

¹¹⁴⁹ Song, L., & Hirji, Z. (2015, July 8). Methane emissions in Texas fracking region 50 percent higher than EPA estimates. *InsideClimate News*. Retrieved from <http://insideclimatenews.org/news/08072015/methane-emissions-texas-fracking-region-50-higher-epa-estimates-oil-gas-drilling-barnett-shale-environmental-defense-fund>

¹¹⁵⁰ Lavoie, T. N., Shepson, P. B., Cambaliza, M. O. L., Stirm, B. H., Karion, A., Sweeney, C., . . . Lyon, D. (2015). Aircraft-based measurements of point source methane emissions in the Barnett Shale Basin. *Environmental Science & Technology*, 49, 7904–7913. doi: 10.1021/acs.est.5b00410

¹¹⁵¹ Townsend-Small, A., Marrero, J. E., Lyon, D. R., Simpson, I. J., Meinardi, S., & Blake, D.R. (2015). Integrating source apportionment tracers into a bottom-up inventory of methane emissions in the Barnett Shale hydraulic fracturing region. *Environmental Science & Technology*, 49, 8175–8182. doi: 10.1021/acs.est.5b00057

¹¹⁵² Adams, K. (2015, July 1). Schoharie County officials ask new studies on gas lines: Report say dangers are equivalent to fracking. *Daily Gazette*, Retrieved from http://www.dailygazette.com/news/2015/jul/01/0701_gasline/?print

1,369 such incidents, which resulted in 259 injuries. More than three-quarters of these incidents were related to natural gas distribution. Equipment failure accounted for half of all incidents; human error accounted for 40 percent. The report noted the “continuing occurrence” of petroleum release incidents—including from natural gas pipeline ruptures—which have “the potential to cause mass casualties and environmental contamination.”¹¹⁵³

- June 9, 2015 – The American Medical Association (AMA) adopted a resolution, “Protecting Public Health from Natural Gas Infrastructure,” that was based on a resolution adopted by the Medical Society of the State of New York. (See below.) The resolution states, “Our AMA recognizes the potential impact on human health associated with natural gas infrastructure and supports legislation that would require a comprehensive Health Impact Assessment regarding the health risks that may be associated with natural gas pipelines.”¹¹⁵⁴
- May 2, 2015 – The Medical Society of the State of New York adopted a resolution, “Protecting Public Health from Natural Gas Infrastructure,” that recognizes the potential impact to human health and the environment of natural gas pipelines and calls for a governmental assessment of these risks.¹¹⁵⁵
- March 3, 2015 – Researchers with the Southwest Pennsylvania Environmental Health Project measured ambient levels of particulate and volatile air pollutants from fracking-related operations and calculated expected human exposures in Washington County, Pennsylvania. Extremely high exposures peaked at night when air was still. These fluctuating exposure events mimic, in frequency and intensity, the episodic nature of health complaints among residents. Over a one-year period, compressor stations were responsible for more extreme exposure events (118) than well pads or gas processing plants.¹¹⁵⁶
- February 24, 2015 – As part of a literature review on the health impacts of compressor stations, the Southwest Pennsylvania Environmental Health Project reported that peak emissions of fine particles tended to occur during construction time, that day-to-day emissions during operational time can fluctuate greatly, and that a compressor blowdown typically represented the single largest emission event during operations. Hence, documentation of these fluctuations cannot be captured by calculating yearly averages. A blowdown is an intentional or accidental release of gas through the blowdown valve that

¹¹⁵³ Anderson, A. R. (2015, June 12). Health effects of cut gas lines and other petroleum product release incidents—seven states. *Morbidity and Mortality Weekly Report*, 64, 601-605.

¹¹⁵⁴ American Medical Association. (2015). H-135.930 Protecting public health from natural gas infrastructure, Resolution 519, A-15. Retrieved from <https://www.ama-assn.org/sites/default/files/media-browser/public/hod/a15-hod-resolutions.pdf>

¹¹⁵⁵ Medical Society of the State of New York. (2015). 2015 House of Delegates Actions: Public Health and Education. Retrieved from <http://www.mssny.org/Documents/HOD/Actions/ActionPHE.pdf>

¹¹⁵⁶ Brown, D. R., Lewis, C., & Weinberger, B. I. (2015). Human exposure to unconventional natural gas development: a public health demonstration of periodic high exposure to chemical mixtures in ambient air. *Journal of Environmental Science and Health, Part A: Toxic/Hazardous Substances and Environmental Engineering*, 50, 460-72. doi: 10.1080/10934529.2015.992663

creates a 30- to 60-meter-high gas plume. Blowdowns, which are used to release pressure, can last as long as three hours. The authors noted that blowdowns result in periods of high levels of volatile organic compound releases and that anecdotal accounts associate blowdowns with burning eyes and throat, skin irritation, and headache.¹¹⁵⁷ There is neither a national or state inventory of compressor station accidents nor a body of peer-reviewed research on the public health impacts of compressor stations.

- February 17, 2015 – A Boston study found that emissions from residential, end-use natural gas infrastructure was a significant source of atmospheric methane—two to three times larger than previously presumed—and accounted for 60 to 100 percent of methane, depending on the season. Of all the natural gas in the downstream component of the natural gas system, 2.7 percent was lost to the atmosphere.¹¹⁵⁸
- February 10, 2015 – A team of engineers from Pennsylvania and Colorado examined methane emissions from natural gas compressor stations and found that vents, valves, engine exhaust, and equipment leaks were also major emissions sources. There was considerable variation in emissions among the 45 compressor stations measured. Surprisingly, substantial emissions were found even when compressors were not operating.¹¹⁵⁹
- December 27, 2014 – A *Pittsburgh Tribune-Review* investigation found that the vast majority of natural gas “gathering lines”—pipelines that take natural gas from rural well pads to processing plants—were regulated by neither federal nor state pipeline safety laws. The United States has nearly 230,000 miles of natural gas gathering lines that are unregulated, operating without safety standards or inspection. These pipelines are among the largest and highest-pressure pipes in use and carry gas at nearly three times the pressure of transmission lines, which transport the gas from the processing plants to urban distribution networks.¹¹⁶⁰
- November 11, 2014 – An analysis by a Carnegie Mellon University research team of 40,000 pipeline accidents from 1968 to 2009 found that comparatively few accidents accounted for a large share of total property damage, whereas a large share of fatalities and injuries were caused by numerous, small-scale accidents. There are 2.4 million miles

¹¹⁵⁷ Southwest Pennsylvania Environmental Health Project (2015, February 24). Summary on compressor stations and health impacts. Retrieved from <http://www.environmentalhealthproject.org/wp-content/uploads/2012/03/Compressor-station-emissions-and-health-impacts-02.24.2015.pdf>

¹¹⁵⁸ McKain, K., Down, A., Raciti, S. M., Budney, J., Hutyra, L. R., Floerchinger, C., . . . Wofsy, S.C. (2015). Methane emissions from natural gas infrastructure and use in the urban region of Boston, Massachusetts. *Proceedings of the National Academy of Sciences*, 112, 1941-46. doi: 10.1073/pnas.1416261112

¹¹⁵⁹ Subramanian, R., Williams, L. L., Vaughn, T. L., Zimmerle, D., Roscioli, J. R., Herndon, S. C., . . . Robinson, A.L. (2015). Methane emissions from natural gas compressor stations in the transmission and storage sector: measurements and comparisons with the EPA Greenhouse Gas Reporting Program protocol. *Environmental Science & Technology*, 49, 3252-61. doi: 10.1021/es5060258

¹¹⁶⁰ Wereschlagin, M. (2015, December 27). Rural gas gathering pipelines kindle concerns about safety laws. *Pittsburgh Review-Tribune*. Retrieved from <http://triblive.com/news/editorspicks/7362085-74/lines-gas-safety#axzz3NAHfzYF8>

of natural gas pipeline in the United States and 175,000 miles of hazardous liquid pipeline (which includes crude oil).¹¹⁶¹

- October 30, 2014 – A research team led by David O. Carpenter at University at Albany found high levels of formaldehyde near 14 compressor stations in three states. In Arkansas, Pennsylvania, and Wyoming, formaldehyde levels near compressor stations exceeded health-based risk levels. The authors noted that compressor stations can produce formaldehyde through at least two routes: it is created as an incomplete combustion byproduct from the gas-fired engines used in compressor stations. It is also created when fugitive methane, which escapes from compressor stations, is chemically converted in the presence of sunlight. Formaldehyde is a known human carcinogen. Other hazardous air pollutants detected near compressor stations in this study were benzene and hexane. One air sample collected near a compressor station in Arkansas contained 17 different volatile compounds. (See entry for October 30, 2014 in Air Pollution.)
- October 15, 2014 – In comments to FERC, New York’s Madison County Health Department reviewed the literature on compressor station emissions and expressed concerns about associated health impacts, including documented correlations between health problems and residential proximity to compressor stations. It also reviewed health outcomes associated with exposures to chemicals known to be released from compressor stations, including VOCs, carbonyls and aldehydes, aromatics, and particulate matter. In addition, gas from fracking operations transiting through compressor stations may carry gaseous radon. The Health Department noted a troubling lack of information on the intensity, frequency, and duration of emission peaks that occur during the blowdowns and large venting episodes that are a normal part of compressor operations.¹¹⁶²
- September 16, 2014 – Noting the proximity of a proposed high-pressure pipeline to Indian Point Nuclear Facility, as well as the evidence linking compressor station emissions to negative health impacts, New York’s Rockland County legislature adopted a resolution calling for a comprehensive Health Impact Assessment in regards to Spectra Energy’s planned Algonquin Incremental Market (AIM) natural gas pipeline, compressor, and metering stations expansion project.¹¹⁶³ This resolution follows on the heels of similar resolutions expressing health concerns about the AIM project from both Westchester and Putnam County legislatures.^{1164, 1165}

¹¹⁶¹ Siler-Evans, K., Hanson, A., Sunday, C., Leonard, N., & Tumminello, M. (2014). Analysis of pipeline accidents in the United States from 1968 to 2009. *International Journal of Critical Infrastructure Protection*, 7, 257-69. doi: 10.1016/j.ijcip.2014.09.002

¹¹⁶² New York State Madison County Health Department (2014, October 15). Comments to the Federal Energy Regulatory Committee concerning docket no. CP14-497-000, Dominion Transmission, Inc. Retrieved from https://www.madisoncounty.ny.gov/sites/default/files/publicinformation/madison_county_doh_comments_-_docket_no._cp14-497-000.pdf

¹¹⁶³ Rockland County Legislature. (2014, September 16). *Resolution No. 404 of 2014 urging that health, safety and planning concerns be addressed and mitigated in the Environmental Review and all other review processes before project permissions be granted for Spectra Energy's Algonquin Incremental Market (AIM) Natural Gas Pipeline, Compressor and Metering Stations Expansion Project*. Retrieved from <https://sape2016.files.wordpress.com/2014/05/rockland-aim-resolution.pdf>

¹¹⁶⁴ Board of Legislators County of Westchester, State of New York. (2014, July 21). *Resolution RES-2014-80*

- January 24, 2013 – A report prepared for the Clean Air Council by an independent consulting firm to evaluate air quality impacts from the Barto Compressor Station in Penn Township, Lycoming County, Pennsylvania predicted “large exceedances” of the nitrogen dioxide (NO₂) 1-hour NAAQS. Researchers used allowable emissions in the PA DEP permit, the 2006-2010 meteorological data and the latest EPA modeling guidance for the model’s prediction. Three techniques were used, and for two of the techniques, NAAQS exceedances occurred within a mile of the plant. The report concluded, “NO₂ impacts from the Barto plant alone are very significant since its emissions cause large exceedances of the 1-hour NAAQS.”¹¹⁶⁶
- July 13, 2011 – A Fort Worth air quality study assessed the impact of drilling and fracking operations, and ancillary infrastructure, on concentrations of toxic air pollutants in the city of Fort Worth, Texas. The study found that compressor stations were a significant source of fracking-related air pollution. The compressor engines were responsible for over 99 percent of the hazardous air pollutants emitted from compressor stations, of which 67 percent was formaldehyde.¹¹⁶⁷

Gas storage

Gas storage facilities include not only manmade holding tanks but also geological formations, most notably, aquifers, abandoned salt caverns, and depleted oil fields left over from mining and drilling operations. These unlined cavities were not created with the intent to store pressurized hydrocarbon gases, nor are they engineered for this purpose. The 3,600-acre Aliso Canyon gas storage facility, located in a depleted oil field in southern California, released more than 100,000 metric tons of methane into the air of the San Fernando Valley over a four-month period beginning in October 2015 before it was finally contained in February 2016. This massive methane leak—the largest in U.S. history—is the greenhouse gas equivalent of a half million cars driving for a year. The plume itself was visible from space. More than 8,000 families in the nearby community of Porter Ranch were evacuated and

Algonquin Incremental Marketing Project resolution. Retrieved from <https://sape2016.files.wordpress.com/2014/05/080414-wcbol-resolution-no-80-2014-requesting-due-diligence-on-environment-p.pdf>

¹¹⁶⁵ Putnam County Legislature. (2014, May 9). *Resolution #104, Resolution regarding the Algonquin Incremental Market (AIM) Project.* Retrieved from <https://sape2016.files.wordpress.com/2014/05/putnam-county-resolutions-104-163-and-182-1.pdf>

¹¹⁶⁶ Tran, K. T. (2013, January 24). *AERMOD modeling of NO₂ impacts of the Barto Compressor Station: Final report.* Prepared for the Clean Air Council, Philadelphia, PA. Retrieved from http://www.pennfuture.org/UserFiles/File/MineDrill/Marcellus/CAC_EmissionsNO2_CompressorBarto_20130124.pdf

¹¹⁶⁷ Eastern Research Group. (2011, July 13). City of Fort Worth natural gas air quality study, final report.

Retrieved from

<http://www.shaledigest.com/documents/2011/Air%20Quality%20Studies/Ft%20Worth%20Natural%20Gas%20Air%20Quality%20Study%20Final%20Report%20ERG%20Research%207-13-2011r.pdf>. See also Energy Research Group. (2011, July 19). Fort Worth natural gas air quality study final report, public meeting presentation. Retrieved from http://fortworthtexas.gov/uploadedFiles/Gas_Wells/110719_ERG.pdf?v=110725

relocated, thousands were sickened, and two public schools closed. The immediate cause of the Aliso Canyon blowout was a cracked well casing and lack of a shut-off valve. Data released in 2018 as part of a new U.S. Department of Transportation rule reveal that there are more than 10,000 Aliso-style storage wells with gas flowing through only a single unprotected pipe—that is, with a single point of failure. Of the nearly 400 natural underground storage facilities in the United States, 296 of them have one or more of these wells, and they are located in 32 states.

- February 1, 2019 – An assessment of gas leakage from different types of natural gas storage facilities that established a mathematical model to predict leakage points showed that long-term periodic injection of gas and improper construction will lead to some degree of gas leakage risks, no matter what kind of construction process is used to create the gas storage reservoir.¹¹⁶⁸
- January 2, 2019 – Plans by Alton Natural Gas to create a massive gas storage hub in salt caverns north of Halifax, Nova Scotia were delayed due to “project and regulatory planning,” and the company has asked the Nova Scotia Utility and Review Board to extend its cavern construction permit. The plan involves hollowing out underground salt deposits using water from the tidal Shubenacadie River. The brine waste would then be dumped into the river, twice a day at high tide, over a two- to three-year period. Members of the Sipekne’katik First Nation argue that the project will harm the ecology of the tidal river, which runs through the middle of Nova Scotia. They have continuously occupied and protested at the site since 2014.¹¹⁶⁹
- August 20, 2018 – A research team investigated the geomechanics of an underground natural gas storage facility in China. They noted that geological factors and engineering factors can both contribute to leaks. Engineering factors include problems with casing integrity, cementing quality, and salt cavern operating pressure. Geological factors include challenges posed by the complexity of geological formations, imperfect sealing by the caprock, and the presence of faults. Using geological analysis, permeability tests, and CT scans, the authors determined that the risk of leakage in this salt cavern underground gas storage arises mainly from a failure of wellbore tightness within a mudstone interlayer.¹¹⁷⁰
- July 12, 2018 – The New York State Department of Environmental Conservation denied a permit for liquified petroleum gas storage (propane) in abandoned salt caverns on the shoreline of Seneca Lake. “The record demonstrates that the impacts of this project on

¹¹⁶⁸ Wei, X., & Zhichao, Z. (2019). Study on the production mode and leakage risk of gas storage well completion. *IOP Conference Series: Earth and Environmental Science*, 233(4), 042007. doi: 10.1088/1755-1315/233/4/042007

¹¹⁶⁹ The Canadian Press. (2019, January 2). More delays for underground cavern gas storage plan north of Halifax. *ConstructConnect*. Retrieved from <https://canada.constructconnect.com/dcn/news/resource/2019/01/delays-underground-cavern-gas-storage-plan-north-halifax>

¹¹⁷⁰ Chen, X., Li, Y., Liu, W., Ma, H., Ma, J., Shi, X., & Yang, C. (2019). Study on sealing failure of wellbore in bedded salt cavern gas storage. *Rock Mechanics and Rock Engineering*, 52(1), 215–228. Advance online publication. doi: 10.1007/s00603-018-1571-5

the character of the local and regional community, including but not limited to the environmental setting and sensitivity of the Finger Lakes area and the local and regional economic engines (e.g., wine, agricultural and tourism industries), are significant and adverse and the project does not avoid or minimize those impacts to the maximum extent practicable. Furthermore, the significant adverse impacts on community character are not outweighed or balanced by social, economic or other considerations, and cannot be avoided or minimized to the maximum extent practicable by the proposed mitigation measures.” Concerns were also raised about the structural integrity of the caverns following disclosure by the gas storage company that additional pressure testing in the caverns would be required to assess possible leaks.^{1171, 1172} The previous year, a subsidiary of the same company scrapped a parallel plan to expand the storage of natural gas in adjacent salt caverns along the lake shore.¹¹⁷³

- June 22, 2018 – A research team undertook an analysis to determine why the roof of China’s first salt cavern underground gas storage facility collapsed, as determined by a sonar test after just 1.3 years of use. They concluded that the main reasons for the collapse were the large-span flat roof, a too-rapid decrease in internal gas pressure, and localized damage that led to massive collapse. They also concluded that this cavern has a high risk of roof collapse taking place again. The study includes evaluations of other similar incidents worldwide. Using geomechanical modeling, the authors developed a “new failure prediction index, consisting of volume shrinkage, dilatancy safety factors, displacement, vertical stress, and equivalent strain.”¹¹⁷⁴
- May 4, 2018 – A new Department of Transportation rule requires gas companies that operate storage facilities to disclose information about design, leaks, and repairs of their wells. According to data released on April 4, 2018 as part of this rule, more than 10,000 wells have gas flowing through only a single unprotected pipe—that is, with a single point of failure. Of the nearly 400 natural underground storage facilities in the United States, 296 of them have one or more of these wells, and they are in 32 states.¹¹⁷⁵ These statistics update an earlier estimate by Harvard University researcher Drew Michanowicz,

¹¹⁷¹ State of New York Department of Environmental Conservation. (2018, July 12). Decision of the Commissioner, final supplemental environmental impact statement and SEQRA findings statement. Retrieved from <https://www.dec.ny.gov/hearings/114139.html>

¹¹⁷² Platsky, J. (2018, May 23). Crestwood acknowledges possible leaks in proposed LPG storage in Seneca Lake mines. *Ithaca Journal*. Retrieved from <https://eu.pressconnects.com/story/news/local/2018/05/21/crestwood-seneca-lake-gas-storage/629768002/>

¹¹⁷³ Campbell, J. (2018, July 12). Crestwood’s Seneca Lake propane storage facility rejected by DEC. *Ithaca Journal*. Retrieved from <https://www.pressconnects.com/story/news/2018/07/12/dec-rejects-plan-crestwood-propane-storage-facility-seneca-lake/779605002/>

¹¹⁷⁴ Wang, T., Yang, C., Chen, J., & Daemen, J. J. K. (2018). Geomechanical investigation of roof failure of China's first gas storage salt cavern. *Engineering Geology*, 243, 59-69. doi: 10.1016/j.enggeo.2018.06.013

¹¹⁷⁵ U.S. Department of Transportation, Pipelines and Hazardous Materials Safety Administration. (2018). Gas distribution, gas gathering, gas transmission, hazardous liquids, liquefied natural gas (LNG), and underground natural gas storage (UNGS) annual report data. Retrieved from <https://www.phmsa.dot.gov/data-and-statistics/pipeline/gas-distribution-gas-gathering-gas-transmission-hazardous-liquids>

who, consulting earlier databases, had pegged the number of Aliso-type wells at about 2,700.¹¹⁷⁶ (See also entry for May 24, 2017.)

- March 6, 2018 – Illinois has the largest amount of natural gas storage in salt formations in the nation. Some of these storage sites underlie the Mahomet Aquifer, which provides drinking water for 14 counties in east-central Illinois. Prompted by an October 2016 report by a federal task force in the aftermath of California’s Aliso Canyon natural gas leak, a team from the University of Illinois’ Prairie Research Institute created an introductory guide to provide basic information about the Mahomet Aquifer and natural gas storage in east-central Illinois.¹¹⁷⁷ (See also entry for October 18, 2016.)
- January 18, 2018 – The California Council of Science and Technology released a 910-page report analyzing the safety risks of all 14 facilities in the state that store gas in depleted oil fields. Among its findings: gas companies do not disclose the chemicals that are pumping underground; state regulators lack necessary information to assess risks; and many wells servicing the storage fields are 60 to 90 years old with no regulatory limit to the age of the well.¹¹⁷⁸
- December 1, 2017 – A University of Southern California-led team investigated the root causes of the catastrophic Aliso Canyon gas storage blow-out, which began October 23, 2015 and continued for four months before being contained. Using methodology designed to capture both social and technological factors, the team concluded that corporate dysfunction and lack of government oversight were the driving forces responsible for the accident. “Risk analysis is vital for safe well operations and relies on analyzing prior data records, yet no national standards for well records were in place prior to the accident. There was no clear overarching agency that was in control of the accident’s intervention and aftermath.”¹¹⁷⁹ In a subsequent news piece from the university, Najmedin Meshkati, senior author of the study, said, “SoCal Gas had lenient requirements for infrastructure record keeping, no comprehensive risk management plan, and no testing programs or plans in place to remediate substandard wells. The company needs to improve its safety culture.”¹¹⁸⁰

¹¹⁷⁶ Michanowicz, D. (2018, May 14). The Aliso Canyon gas leak was a disaster. There are 10,000 more storage wells out there just like it. *Los Angeles Times*. Retrieved from <http://www.latimes.com/opinion/op-ed/la-oe-michanowicz-aliso-canyon-gas-leak-20180514-story.html>

¹¹⁷⁷ Locke, R., Roadcap, G., Stumpf, A., Leetaru, H., Kelly, W., & Winkel, R. (2018). *An introductory guide to the Mahomet Aquifer and natural gas storage in East-Central Illinois*. Prairie Research Institute. Retrieved from https://www.ideals.illinois.edu/bitstream/handle/2142/99145/PRI%20Intro%20Guide%20to%20the%20Mahomet%20Aquifer%20and%20Natural%20Gas%20Storage_02.22.2018_printed.pdf?sequence=2&isAllowed=y

¹¹⁷⁸ Birkholzer, J., & Long, J. C. S. (2018, January 18). *Long-term viability of underground natural gas storage in California: an independent review of scientific and technical information*. California Council of Science and Technology. Retrieved from <https://ccst.us/reports/natural-gas-storage/>

¹¹⁷⁹ Tabibzadeh, M., Stavros, S., Ashtekar, M. S., & Meshkati, N. (2017). A systematic framework for root-cause analysis of the Aliso Canyon Gas Leak using the AcciMap methodology: Implication for underground gas storage facilities. *Journal of Sustainable Energy Engineering*, 5(3). doi: 10.7569/JSEE.2017.629515

¹¹⁸⁰ Vuong, Z. (2018, February 15). Who should be held responsible for the Aliso Canyon gas leak? *USC News*. Retrieved from <http://news.usc.edu/136300/who-should-be-held-responsible-for-the-aliso-canyon-gas-leak/>

- November 22, 2017 – The U.S. Government Accountability Office (GAO) reported that, two years after the Aliso Canyon blow-out, the Pipeline and Hazardous Materials Safety Administration (PHMSA) is failing to inspect natural gas storage sites in a timely manner, as called for by the Department of Transportation’s interim standards. Until 2016, states set the standards for 211 of the nation’s 415 gas storage sites, while the 204 sites that were connected to interstate pipelines had no standards at all. Collectively, these 415 natural gas storage sites contain about 17,000 wells that inject or withdraw natural gas from the underground formations below, which include depleted oil and gas reservoirs, abandoned mines, depleted aquifers, and hard rock caverns. The GAO noted that more than 300 cities and towns are located near natural gas storage sites.¹¹⁸¹
- June 21, 2017 – In response to requests from the oil and natural gas industry, the White House announced that it will delay implementation of a rule that would have set national standards for underground natural gas storage. Prompted by the 2015 disaster at Aliso Canyon and developed under the previous administration, this federal interim rule had called for phasing out single-point-of-failure, single-containment designs of the type that made impossible the task of swiftly shutting off the impaired Aliso Canyon well once it began leaking.¹¹⁸²
- May 24, 2017 – A national assessment of thousands of underground gas storage wells by a Harvard School of Public Health team found that more than 20 percent are similar in design to the well that failed at Aliso Canyon. These obsolete wells, with single failure points and a median age of 74 years, operate in 19 states and represent more than half of the working capacity for U.S. natural gas. More than 2,700 of these wells were not originally designed to hold gas and, as at Aliso Canyon, have been repurposed to do so. An estimated 210 of these repurposed wells (located in Pennsylvania, Ohio, New York, and West Virginia) are more than 100 years old and entirely lack cement zonal isolation methods. Study author Jonathan Buonocore said, “Partly because no federal safety regulations apply to natural gas storage wells or their operations (now pending), very little aggregate information was available. . . . After we identified this data gap, we realized we needed to build our own database to begin to assess this previously inapparent hazard.” With the 50 percent increase in domestic natural gas production over the last ten years, natural gas storage is at an all time high and in demand.^{1183, 1184}

¹¹⁸¹ U.S. Government Accountability Office. (2017, November 22). *Natural gas storage: Department of Transportation could take additional steps to improve safety enforcement planning*. GAO-18-89. Retrieved from <https://www.gao.gov/assets/690/688553.pdf>.

¹¹⁸² Nemecek, R. (2017, June 21). PHMSA pauses stricter natural gas storage rules for clarification. *Natural Gas Intel*. Retrieved from <http://www.naturalgasintel.com/articles/110856-phmsa-pauses-stricter-natural-gas-storage-rules-for-clarification>

¹¹⁸³ Michanowicz, D. R., Buonocore, J. J., Rowland, S. T., Konschnik, K. E., Goho, S. A., & Bernstein, A.S. (2017). A national assessment of underground gas storage identifying wells with designs likely vulnerable to a single-point-of-failure. *Environmental Research Letters*, 12(6). doi: 10.1088/1748-9326/aa7030

¹¹⁸⁴ Institute of Physics. (2017, May 24). Study uncovers widespread leak risk for US underground natural gas storage wells. *Phys.Org*. Retrieved from <https://phys.org/news/2017-05-uncovers-widespread-leak-underground-natural.html>

- October 21, 2016 – The California Air Resources Board determined that the Aliso Canyon gas storage facility released 100,000 tons of methane, becoming the largest ever natural gas leak in U.S. history.¹¹⁸⁵
- October 18, 2016 – A federal task force issued a report with 44 recommendations intended to prevent another Aliso Canyon-style disaster. Chief among them is a phase-out of “single-point of failure” designs.¹¹⁸⁶
- July 13, 2016 – As reported by the *Los Angeles Daily News*, Los Angeles County health officials were prepared to go to court to ensure that the Southern California Gas Company complies with an order to pay for professional comprehensive cleaning in the homes of residents who were relocated due to the Aliso Canyon gas leak. The company had filed legal papers asking that the order “to remove dust and oily mist from up to 35,000 homes be nullified,” after their report of having cleaned 1,700 homes to date. The Los Angeles County Health Department said the company had done a poor job on these and did not follow protocol to remove the metal particles, including barium, manganese, vanadium, aluminum, and iron previously identified in household surface dust.¹¹⁸⁷
- July 9, 2016 – California’s South Coast Air Quality Management District and Southern California Gas Company were still at an impasse seven months after the company was given an abatement order that included a community health study on the potential impacts of exposures from the massive Aliso Canyon leak. The company was ordered to commit to paying “reasonable costs” for the study.¹¹⁸⁸
- June 22, 2016 – The first federal legislation of gas storage facilities was signed into law. The Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2016 includes a provision in response to the Aliso Canyon gas leak requiring PHMSA to develop regulations for the construction and operation of underground natural gas storage facilities.¹¹⁸⁹ (See entry below, of February 8, 2016, for analysis of the likely shortcomings of these first federal regulations and their inability to prevent a leak such as that at Aliso Canyon.)

¹¹⁸⁵ California Air Resources Board. (2016, October 21). Determination of total methane emissions from Aliso Canyon natural gas leak incident. Retrieved from

https://www.arb.ca.gov/research/aliso_canyon/aliso_canyon_methane_emissions-arb_final.pdf

¹¹⁸⁶ U.S. Department of Energy and U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration. (2016, October 18). Ensuring safe and reliable underground natural gas storage: Final report of the interagency task force on natural gas storage safety. Retrieved from

<https://energy.gov/sites/prod/files/2016/10/f33/Ensuring%20Safe%20and%20Reliable%20Underground%20Natural%20Gas%20Storage%20-%20Final%20Report.pdf>

¹¹⁸⁷ Abram, S. (2016, July 13). SoCalGas slammed for poor cleanup of Porter Ranch homes. *Los Angeles Daily News*. Retrieved from <http://www.dailynews.com/health/20160713/socalgas-slammed-for-poor-cleanup-of-porter-ranch-homes>

¹¹⁸⁸ Bartholomew, D. (2016, July 9). Gas Company, pollution agency at odds over cost of Porter Ranch health study. *Los Angeles Daily News*. Retrieved from <http://www.dailynews.com/government-and-politics/20160709/gas-company-pollution-agency-at-odds-over-cost-of-porter-ranch-health-study>

¹¹⁸⁹ Cama, T. (2016, June 22). Obama signs pipeline safety bill. *The Hill*. Retrieved from <http://thehill.com/policy/energy-environment/284479-obama-signs-pipeline-safety-bill>

- June 20, 2016 – As reported in *Geophysical Research Letters*, an airborne instrument onboard a NASA satellite was able to detect and quantify the size and shape of the methane plume from the Aliso Canyon gas leak as the event occurred.¹¹⁹⁰ This is the first time a natural gas leak has been visible from space, according to the authors of the study.¹¹⁹¹
- May 4, 2016 – Southern California Gas Company said that costs related to the Aliso Canyon natural gas storage facility leak reached an estimated \$665 million. The utility company let the Securities and Exchange Commission know they carry policies with a combined limit available “in excess of \$1 billion,” but according to the *Los Angeles Times*, legal experts and lawyers said that \$1 billion in insurance might not be enough for what they ultimately need.¹¹⁹²
- April 12, 2016 – California energy agencies issued a report indicating the threat of widespread summer power outages if no gas can be withdrawn from Aliso Canyon. The report was met with criticism. “Consumer groups and utility critics contend that the blackout warnings are an irresponsible scare tactic to ensure that Southern California Gas Company is allowed to keep storing gas at the facility and that ratepayers will pay for upgrades to store even more fuel there.”¹¹⁹³
- April 6, 2016 – The *Los Angeles Times* reported that, though prices for homes in Porter Ranch adjacent to the Aliso Canyon gas storage leak held up, sales declined. After the leak that began October 23, 2015, sales from December 2015 to February 2016 declined 20 percent from the year before. Disclosures for homes in the area “now include a mention of the community's proximity to the gas field and the recent problems.”¹¹⁹⁴
- March 18, 2016 – The California State Oil and Gas Division of the Department of Conservation issued penalties totaling \$75,000 for three separate violations after finding incidents of intentional venting of gas at the Aliso Canyon gas field and malicious concealment of those acts. Both are violations of the state gas regulations.¹¹⁹⁵ Following the Aliso Canyon gas storage leak, the California State Public Utilities Commission ordered a statewide survey of California’s 12 natural gas storage fields and found 229

¹¹⁹⁰ Thompson, D. R., Thorpe, A. K., Frankenberg, C., Green, R. O., Duren, R., Guanter, L., ...Ungar, S. (2016). Space-based remote imaging spectroscopy of the Aliso Canyon CH₄ superemitter. *Geophysical Research Letters* 43(12). doi: 10.1002/2016GL069079

¹¹⁹¹ Mooney, C. (2016 June 15). This gas leak was so massive that NASA saw it from space. *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/energy-environment/wp/2016/06/15/this-gas-leak-was-so-massive-that-nasa-saw-it-from-space/?utm_term=.1e66d8da1423

¹¹⁹² Penn, I. (2016, May 4). Costs related to Aliso Canyon leak reach an estimated \$665 million. *Los Angeles Times*. Retrieved from <http://www.latimes.com/business/la-fi-aliso-canyon-costs-20160504-snap-story.html>

¹¹⁹³ Penn, I. (2016, April 12). 'This is a threat. This is not a report.' Critics call blackout warnings a scare tactic to keep Aliso Canyon open. *Los Angeles Times*. Retrieved from <http://www.latimes.com/business/la-fi-gas-field-20160412-story.html>

¹¹⁹⁴ Khouri, A. (2016, April 6). Gas leak disrupts Porter Ranch housing market. *Los Angeles Times*. Retrieved from <http://www.latimes.com/business/real-estate/la-fi-porter-ranch-sales-20160406-story.html>

¹¹⁹⁵ California Department of Conservation. (2016, March 18). State oil & gas division issues \$75,000 fine to operator for illegally venting natural gas. NR#2016-06. Retrieved from [http://www.conservation.ca.gov/index/Documents/2016-06%20DOC%20fines%20oil%20operator%20\\$75,000.pdf](http://www.conservation.ca.gov/index/Documents/2016-06%20DOC%20fines%20oil%20operator%20$75,000.pdf)

faulty valves, flanges and leaky wellheads and a 230th leak at an abandoned well; eight were deemed hazardous.¹¹⁹⁶

- March 14, 2016 – Methane and ethane emissions were measured to determine spatial patterns and source attribution of urban methane in the Los Angeles Basin. The surveys demonstrated the prevalence of fugitive methane emissions across the Los Angeles urban landscape and that fossil fuel sources accounted for 58–65 percent of methane emissions.¹¹⁹⁷
- February 25, 2016 – Measurements of methane and other chemicals were taken by aerial equipment following the October gas release from a faulty well in the Aliso Canyon storage field. The data demonstrated that the blowout of this single well created the largest known anthropogenic point source of methane in the United States. The leak lasted 112 days and released a total of 97,100 tons of methane and 7,300 tons of ethane into the atmosphere. This was equal to 24 percent of the methane and 56 percent of the ethane emitted each year from all other sources in the Los Angeles Basin combined.¹¹⁹⁸ Aliso Canyon was already a major pollution source before the massive leak.¹¹⁹⁹ As determined by the study and reported by major news outlets, the recent methane leak is officially the worst in U.S. history.^{1200, 1201}
- February 18, 2016 – Stanford and UCLA scientists reported to *InsideClimate News* that the lack of measurement data for the entire 100+ days of community exposures to the Aliso Canyon methane leak, combined with gaps in the science about many of the chemicals, hinders the ability to understand the health impacts of the leak. “‘The first week is when we would expect the highest gas concentrations to reach the neighborhood because the pressures in the storage field were the highest,’ said Robert Jackson, an earth system science professor at Stanford University who measured methane concentrations in nearby communities during the leak. ‘And yet we don't have any information or data for

¹¹⁹⁶ St. John, P. (2016, March 23). 229 leaks found in state's underground gas storage facilities, most considered minor. *Los Angeles Times*. Retrieved from

<http://www.latimes.com/local/lanow/la-me-ln-gas-leaks-storage-wells-20160322-story.html>

¹¹⁹⁷ Hopkins, F. M., Kort, E. A., Bush, S. E., Ehleringer, J. R., Lai, C.-T., Blake, D. R., & Randerson, J. T. (2016). Spatial patterns and source attribution of urban methane in the Los Angeles Basin. *Journal of Geophysical Research: Atmospheres*, 121(5), 2490–2507. doi: 10.1002/2015JD024429

¹¹⁹⁸ Conley, S., Franco, G., Faloon, I., Blake, D. R., Peischl, J. & Ryerson, T. B. (2016). Methane emissions from the 2015 Aliso Canyon blowout in Los Angeles, CA. *Science*. Advance online publication. doi: 10.1126/science.aaf2348

¹¹⁹⁹ Lobet, I. & Reicher, M. (2016, February 14). *inewssource.org*. Retrieved from <http://inewssource.org/2016/02/14/aliso-canyon-major-pollution/>

¹²⁰⁰ Akpan, N. (2016, February 25). Los Angeles methane leak was officially the worst in U.S. history, study says. *PBS Newshour*. Retrieved from <http://www.pbs.org/newshour/rundown/los-angeles-methane-leak-is-officially-the-worst-in-u-s-history/>

¹²⁰¹ Khan, A. (2016, February 25). Porter Ranch leak declared largest methane leak in U.S. history. *Los Angeles Times*. Retrieved from <http://www.latimes.com/science/sciencenow/la-sci-sn-porter-ranch-methane-20160225-story.html>

that first week at least.” Jackson noted that even after monitoring was initiated, it was intermittent rather than continuous.¹²⁰²

- February 18, 2016 – Independent regional experts from USC and UCLA interviewed by Southern California Public Radio expressed skepticism that an industry-funded study ordered by the South Coast Air Quality Management District following the Aliso Canyon methane leak would be rigorously designed to answer specific questions about sub-chronic, cumulative exposures, including hydrogen sulfide, which was measured in the nearby Porter Ranch community at levels far greater than the average across American cities.¹²⁰³
- February 13, 2016 – The Los Angeles County Department of Health prepared a *Supplemental Report* for its Expanded Air Monitoring Plan concerning the Southern California Gas Company’s Aliso Canyon storage facility long-term gas leak. The report addressed “chemicals of health concern” including toluene, ethylbenzene, xylene, hydrocarbons, VOCs, metals, and radon and concluded, “all results suggest that chemical exposures experienced by residents as a result of the gas leak are below the levels of concern that have been established by various regulatory agencies.”¹²⁰⁴ Remaining challenges named by the report itself included possible gaps in data collection, other chemicals present for which no sampling occurred, and further study of the symptoms reported by the public. Many independent scientists did not concur with the Department of Health’s ongoing statements that chemical exposures were below levels of concern. Issues raised included monitoring not initiated until a week after the leak began, lack of continuous monitoring, and reliance on “grab samples.” Speaking to *InsideClimate News*, John Bosch, a retired air-monitoring expert with more than 30 years’ experience at the EPA said, “Grab samples may be OK as a first-tier guesstimate of what the problem is, but you really have to have continuous monitoring.”¹²⁰⁵
- February 8, 2016 – PHMSA announced that it might issue its first federal safety regulations for gas storage sites such as Aliso Canyon, while also suggesting site operators voluntarily follow guidelines that the proposed rules (which would likely take years to issue) will likely mirror. According to a report in *InsideClimate News*, these guidelines would not require systems to stop the flow of gas in an emergency or mandate redundancies to prevent methane from leaking into the environment.” If PHMSA

¹²⁰² McKenna, P. (2016, February 18). What will be the health impact of 100+ days of exposure to California's methane leak? *InsideClimate News*. Retrieved from <http://insideclimatenews.org/news/17022016/health-impacts-aliso-canyon-porter-ranch-methane-leak-california-socal-gas>

¹²⁰³ O’Neill, S. (2016, February 18). Did the Porter Ranch gas leak cause long-term health damage? *89.33 KPCC*. Retrieved from <http://www.scpr.org/news/2016/02/18/57666/did-the-porter-ranch-gas-leak-cause-long-term-health/>

¹²⁰⁴ Los Angeles County Department of Health. (2016, February 13). *Aliso Canyon gas leak, Results of air monitoring and assessments of health, Supplemental report: Updated results and expanded chemical testing*. Retrieved from <http://www.publichealth.lacounty.gov/media/docs/SUPPLEMENTAL%20-Aliso%20Canyon%20Gas%20Leak-%20Results%20of%20Air%20Monitoring%20and%20Assessments%20of%20Health%20-%202016-02-13-16.pdf>

¹²⁰⁵ McKenna, P. (2016, February 18). What will be the health impact of 100+ days of exposure to California's methane leak? *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/17022016/health-impacts-aliso-canyon-porter-ranch-methane-leak-california-socal-gas>

proceeds to adopt industry guidelines, the resulting rules “may not address two key issues that turned Aliso Canyon into a disaster: emergency shutoff valves and a safer configuration of pipes.” Further, even with new regulations, storage units would most likely remain under state jurisdiction, “though state authorities may adopt any new federal rules.”¹²⁰⁶ A subsequent story reported on members of Congress pressing PHMSA to create the first federal standards for the 418 underground gas storage facilities for which it has authority to set regulations. In the hearing before a subcommittee of the House Committee on Transportation and Infrastructure, California representatives “spoke about their efforts to speed up PHMSA’s rulemaking for underground gas storage.”¹²⁰⁷

- February 5, 2016 – As part of the Expanded Air Monitoring Plan, Los Angeles County Department of Health provided results for the primary chemicals of concern to assess health effects in residents, pets, and other animals in the community during the Southern California Gas Aliso Canyon storage facility leak. Those chemicals included methane, odorants, and benzene. The maximum level of methane detected was 4,340 ppm and the maximum level of benzene was 30.6 ppb. Early on, average weekly benzene levels that were close to the 1 ppb chronic exposure limit/ health protective level. “Methane levels have remained above normal, but have decreased substantially over time,” the report summarized. It also stated that odorants “. . . remained below instrument detection limits throughout the entire period, including immediately after the leak, even at locations near the leaking well,” and that “[b]enzene and other chemicals were originally detectable at levels above normal from within community sampling sites, but peak levels remained below acute exposure thresholds.”¹²⁰⁸ While the Los Angeles County Department of Health concluded that “health effects resulting from the on-going leak should be limited to short-term effects resulting from exposure to the odorants,” independent scientists, noting data gaps, have challenged these conclusions.
- January 25, 2016 – Some health experts and residents of Porter Ranch, California, adjacent to the Aliso Canyon gas field leak, expressed concern about long-term exposure to the odorous component of the gas, mercaptans, to which regulators attributed several symptoms of residents. Mercaptans are sulfurous chemicals that are added to natural gas to aid in the detection of leaks. Though California regulators have said the health problems, such as headaches, vomiting, and nosebleeds are temporary and will not lead to long-term damage, medical researchers described data gaps to *InsideClimate News*. There is “virtually no research on prolonged exposure to mercaptans.” Further, some researchers suggest the health problems may have been caused by different chemicals in

¹²⁰⁶ McKenna, P. (2016, February 8). New federal gas storage regulations likely to mimic industry's guidelines. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/08022016/federal-gas-storage-regulations-likely-mimic-industry-guidelines-aliso-canyon-phmsa-api>

¹²⁰⁷ Song, L. (2016, February 26). *InsideClimate News*. U.S. pipeline agency pressed to regulate underground gas storage. Retrieved from <https://insideclimatenews.org/news/26022016/phmsa-pipeline-regulator-pressed-regulate-underground-natural-gas-storage-aliso-canyon-methane>

¹²⁰⁸ Los Angeles County Department of Health. (2016, February 5). Aliso Canyon gas leak: Results of air monitoring and assessments of health. Retrieved from <http://www.publichealth.lacounty.gov/media/docs/AlisoAir.pdf>

the gas, and that “regulators have downplayed the significance of other contaminants that are also present in the leak.”¹²⁰⁹

- January 19, 2016 – Peter Richman, MD, president of the Los Angeles County Medical Association told the *Los Angeles Daily News* that, at nearly three months after the Aliso Canyon methane leak began, physicians had yet to receive a formal statement from the Los Angeles County Department of Public Health about airborne chemical pollutants related to the gas leak or guidelines on how to answer questions from patients about long-term health effects. Richman expressed special concern about prolonged exposure to methane and trace chemicals known to be carcinogenic. Another area physician reported that, as of the interview date, his urgent care practice had seen a hundred patients whose symptoms were consistent with exposure to leak-related pollutants.¹²¹⁰
- January 14, 2016 – Boston University researcher Nathan Phillips and Bob Ackley of Gas Safety USA drove a high precision GIS-enabled gas analyzer through roads throughout California’s San Fernando Valley adjacent to the Aliso Canyon gas leak in early January 2016. Early results showed methane levels elevated 2-67 times the background level.¹²¹¹
- January 13, 2016 – Investigations into the possible cause of the gas leak in Aliso Canyon included the consideration that nearby fracking may have contributed to casing failure. In an email to the *Los Angeles Daily News*, California Department of Conservation Chief Deputy Jason Marshall said that their investigation will examine well records, including those pertaining to “well stimulation operations.”¹²¹² According to a 2015 report prepared for the California Council on Science and Technology, hydraulic fracturing is used about twice yearly to enhance storage “mostly in one facility serving southern California (Aliso Canyon).”¹²¹³
- January 13, 2016 – “Aliso Canyon is a wake-up call,” according to a *Rocky Mountain PBS News* investigative report on the state of U.S. natural gas infrastructure. Natural gas is no longer a cleaner fuel than coal when methane leakage rates exceeds 2-4 percent, but the vast size of the nation’s interconnected natural gas storage and pipeline systems

¹²⁰⁹ Song, L. (2016, January 25). Mercaptans in methane leak make Porter Ranch residents sick, and fearful. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/22012016/porter-ranch-residents-health-effects-methane-leak-aliso-canyon-california>

¹²¹⁰ Abram, S. (2016, January 19). Doctors treating Porter Ranch residents want more gas-leak guidance. *Los Angeles Daily News*. Retrieved from <http://www.dailynews.com/health/20160119/doctors-treating-porter-ranch-residents-want-more-gas-leak-guidance>

¹²¹¹ Bartholomew, D. (2016, January 14). ‘Plume chaser’ researchers fan out across San Fernando Valley to map reach of Porter Ranch gas leak. *Los Angeles Daily News*. Retrieved from <http://www.dailynews.com/environment-and-nature/20160114/plume-chaser-researchers-fan-out-across-san-fernando-valley-to-map-reach-of-porter-ranch-gas-leak>

¹²¹² Wilcox, G. J. (2016, January 13). Regulators probing whether fracking was connected to Aliso Canyon gas well leak. *Los Angeles Daily News*. Retrieved from <http://www.dailynews.com/environment-and-nature/20160113/regulators-probing-whether-fracking-was-connected-to-aliso-canyon-gas-well-leak>

¹²¹³ Long, J. C. S., Feinstein, L. C., Birkholzer, J., Jordan, P., Houseworth, J., Dobson, P. F., . . . Gautier, D. L. (2015). *An independent scientific assessment of well stimulation in California, Volume I: Well stimulation technologies and their past, present, and potential future use in California*. California Council on Science and Technology, Sacramento, CA. Retrieved from <https://ccst.us/publications/2015/2015SB4-v1.pdf>

makes difficult the task of tallying all the micro-leaks spread across the entire network and answering fundamental questions about exactly how much methane is being lost. The PBS report also expressed concern about the age of many of the system's component parts. According to the piece, nearly half (46 percent) of the nation's transmission pipelines, designed to carry high-pressure gas over long distances, were built in the 50s and 60s and are now more than a half century old.¹²¹⁴

- December 30, 2015 – According to the *Los Angeles Daily News*, which unearthed November 2014 state regulatory filing documents, the Southern California Gas Company knew about the corrosion and potential for leakage at Aliso Canyon prior to the massive blow-out. “In written testimony to the California Public Utilities Commission, [SoCalGas Director of Storage Operations Phillip] Baker described a reactive maintenance process that hinted at major leakage problems underground.”¹²¹⁵
- November 20, 2015 – California state agencies collaborated with Aviation Scientific to measure methane emission rates at two early November dates, finding rates of 44,000±5,000 kilograms of methane per hour and 50,000±16,000 kilograms of methane per hour. The results indicated that the Aliso Canyon gas leak would have contributed about a quarter of California's methane emissions for the time period studied.¹²¹⁶
- November 20, 2015 – According to the *Los Angeles Times*, one month into the Aliso Canyon ongoing gas leak, Southern California Gas warned that it “might need several months” to plug the leak. An order from California's Division of Oil, Gas and Geothermal Resources, “stated that an ‘uncontrolled flow of fluids’ and gas was escaping and the operator had failed to fully inform state officials about the well's status. Steve Bohlen, the state oil and gas supervisor, also directed the company to submit a schedule for remediation work or for drilling a relief well.”¹²¹⁷
- October 19, 2015 – *Houston Public Media* reported on the 125 caverns carved out of salt storing natural gas liquids (NGLs), thousands of feet under the city of Mont Belvieu, Texas, east of Houston. “There have been fiery accidents here. But nothing like what happened 23 years ago at a different [NGL] storage site 100 miles to the west. ‘A bomb-like blast literally blew residents in this small community out of their beds this morning, said a reporter for Dallas's Channel 8 as he did a live report just outside the city of Brenham.’ That blast, which killed three and injured 21, was reportedly caused by the

¹²¹⁴ Wirfs-Brock, J. (2016, January 13). Vast California methane leak is dire but not unique in aging infrastructure. *Rocky Mountain PBS News*. Retrieved from <http://inewsnetwork.org/2016/01/13/vast-california-methane-leak-is-dire-but-not-unique-in-aging-infrastructure/>

¹²¹⁵ Reicher, M. (2015, December 30). SoCalGas knew of corrosion at Porter Ranch gas facility, doc shows. *Los Angeles Daily News*. Retrieved from <http://www.dailynews.com/general-news/20151230/socalgas-knew-of-corrosion-at-porter-ranch-gas-facility-doc-shows>

¹²¹⁶ California Air Resources Board. (2015, November 20). Report on greenhouse gas emissions from Aliso Canyon leak. *Los Angeles Times*. Retrieved from <http://documents.latimes.com/report-greenhouse-gas-emissions-aliso-canyon-leak/>

¹²¹⁷ Barboza, T. (2015, November 20). Natural gas leak that's sickening Valley residents could take months to fix. *Los Angeles Times*. Retrieved from <http://www.latimes.com/local/california/la-me-1121-gas-leak-20151121-story.html>

lack of an emergency shut-off valve. There are no federal standards in place for such requirements. Twenty-three years later, a month prior to the *Houston Public Media* report, “at a hearing held by the U.S. Senate Committee on Commerce, Science, & Transportation, Donald Santa, head of the Interstate Natural Gas Association of America, told the senators that it was only in recent weeks that the industry approved standards for storing natural gas.” Texas did enact legislation a year after the deadly blast “and now requires emergency shutoff valves and inspections for leaks every five years.”¹²¹⁸

- October 5, 2011 – The federal district court in Topeka struck down Kansas gas-safety laws in 2010, and 11 underground storage sites with a capacity of more than 270 billion cubic feet of gas have gone uninspected, leaving thousands of Kansans to live on and around uninspected gas-storage fields.¹²¹⁹
- 2008 – When considering the possibility of storing natural gas in a variety of underground gas storage facilities, the UK government commissioned the British Geological Survey to identify the main types of facilities currently in operation worldwide along with any documented or reported failures and incidents which have led to release of stored product. The researchers found that California had the most incidents, but concluded that many of these problems and geological factors would not necessarily be applicable to the UK. The incidents most relevant to gas storage in the UK resulted from a failure of either the man-made infrastructure (well casings, cement, pipes, valves, flanges, compressors etc.), or human error, which has included overfilling of caverns and inadvertent intrusion. Extreme natural events, including earthquakes, also played a role. The researchers looked closely at incidents in salt caverns that had been repurposed to store gas. They reported that “early salt cavern storage in the US was done in brine wells that had been solution mined [in which salt deposits are melted away with hot water or steam] without consideration for subsequent storage in the depleted caverns. This practice sometimes resulted in later problems for storage operations in retrofitted brine caverns.” The authors conclude that the rate for a geological failure of the storage cavity in an underground gas storage facility is of the order of 10^{-5} failures per well year.¹²²⁰

Liquefied natural gas (LNG) facilities

LNG is methane vapor that has been turned into liquid through a cryogenic process that lowers the temperature of the gas to its condensation point (– 259° F). Chilling natural gas to its liquid state shrinks its volume by a factor of 600, allowing LNG to be transported to places

¹²¹⁸ Fehling, D. (2015, October 19). On edge of Houston, underground caverns store huge quantities of natural gas liquids. *Houston Public Media*. Retrieved from <http://www.houstonpublicmedia.org/articles/news/2015/10/19/124674/on-edge-of-houston-underground-caverns-store-huge-quantities-of-natural-gas-liquids/>

¹²¹⁹ Lefler, D. (2011, October 5). Lawsuit leaves large gas storage fields in Kansas unregulated. *Wichita Eagle*. Retrieved from <http://www.kansas.com/news/article1071558.html>

¹²²⁰ Keeley, D. (Health and Safety Laboratory). (2008). *Failure rates for underground gas storage: Significance for land use planning assessments*. Health and Safety Laboratory for the Health and Safety Executive, Derbyshire, UK. Retrieved from <http://www.hse.gov.uk/research/rpdf/rr671.pdf>

where pipelines don't reach, as when it is exported overseas on massive tanker ships. LNG is also sometimes used as vehicle fuel in, for example, long-haul trucks. LNG facilities encourage fracking by creating storage for the glut of gas that fracking has created, by enabling its export, and by driving up prices and profit margins. LNG facilities are capital-intensive and consist of liquefaction plants, import/export terminals, tanker ships, regasification terminals, and inland storage equipment.

LNG liquefaction requires immense energy in order to achieve the ultra-low temperatures required for condensation. An LNG facility typically requires its own power plant. Because they rely on evaporative cooling, LNG tanks are leaky by design: to maintain the liquid at super-chilled temperatures and prevent explosions, vaporized gas is vented from storage tanks directly into the atmosphere. Larger tanks are engineered to capture boiled-off gas, but this process is not leak-proof. Before it is combusted or sent down a pipeline, LNG must be regasified via an energy-intensive process that requires massive infrastructure of its own, including periodic flaring to control pressure. Refrigeration, venting, leaks, flaring, and shipping make LNG more energy intensive than conventional natural gas. A recent analysis shows that exporting large quantities of LNG from the United States will likely cause global greenhouse gas emissions to rise not only because of its energy penalty but also because LNG exports add more fossil fuels to the global market and extend the lifespan of U.S. coal-fired plants.

LNG creates acute public safety risks. LNG explodes when spilled into water and, if spilled on the ground, can turn into rapidly expanding, odorless clouds that can flash-freeze human flesh and asphyxiate by displacing oxygen. If ignited at the source, LNG vapors can become flaming "pool fires" that burn hotter than other fuels and cannot be extinguished. LNG fires burn hot enough to cause second-degree burns on exposed skin up to a mile away. LNG facilities pose significant risks to nearby population centers and have been identified as potential terrorist targets.

- July 13, 2018 – A retrospective look at the risk management and risk governance used to develop and construct three LNG facilities in Gladstone, Australia evaluated the process by which multiple stakeholders—including government, business, community, and environmental groups—contributed to decision-making and management. The framework developed by the International Risk Governance Council was used for comparison. Environmental, social, and economic impacts occurred during construction, including death of harbor marine life, increased housing prices, and increased cost of living. Several problems in risk assessment and management were identified, including lack of cooperation between organizations at the onset of construction; disagreement as to whether monitoring and compliance mechanisms were adequate; and concern that the government was reactive to problems, rather than attempting to prevent or mitigate risks. Several recommendations were made to improve the risk management process of future projects.¹²²¹

¹²²¹ van der Vegt, R. G. (2018). Risk assessment and risk governance of liquefied natural gas development in Gladstone, Australia. *The Extractive Industries and Society*, 6(1), 58-66. doi: 10.1111/risa.12977

- February 12, 2018 – Two LNG storage tanks were shut down at Cheniere Energy’s Sabine Pass export facility after leaking LNG was found in a containment ditch around one of the tanks and 14 separate natural gas leaks were discovered around the base of a second tank. The Sabine Pass facility is located on the U.S. Gulf Coast on the border between Texas and Louisiana. Emergency procedures were put into place to assure the safety of the 107 on-site workers, but the public was not notified about this incident until more than two weeks later. Inspection revealed four cracks up to six feet long in the outer shell of the tank that had leaked LNG. These tanks are double walled, but only the inner tank is designed to tolerate the super-chilled temperature of LNG. The outer tank, rated to only -25° F, became brittle upon contact with -260° F LNG. The resulting investigation uncovered a long history of safety issues at this plant, including 11 other incidents involving these tanks that had occurred as far back as 2008 (when Sabine Pass was operating as an LNG import facility) after the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) ordered Cheniere to conduct a root cause analysis and turn over records of any prior leaks.¹²²² The agency also issued an order stating, “continued operation of the affected tanks without corrective measures is or would be hazardous to life, property, and the environment.” Sabine Pass facility was required to receive written authorization from the Federal Energy Regulatory Commission (FERC) before the tanks could be put back in service.¹²²³ As part of a later hearing, parts of which were closed to the press and to the public, an accident investigator with PHMSA said that she had struggled with the company to get information “timely and in enough detail.”¹²²⁴ In April 2018, the parties agreed to resolve the issue without administrative proceedings or litigation.¹²²⁵
- November 20, 2017 – Using a hybrid lifecycle and energy strategy analysis, a team of energy researchers investigated the potential climate impacts of U.S. LNG exports to Asia. They found that gas emissions were widely variable, dependent on the specific destination and the ultimate purpose for which the gas is used. Despite this range, under a scenario in which U.S. LNG exports continue to rise, “emissions are not likely to decrease and may increase significantly” because of additional energy demand, higher U.S. emissions, and increased methane leakage. The study also predicted that increased LNG exports could actually prolong the lifespans of coal-fired plants within the United States. All together, these factors, “have the very real potential to undermine any prospective climate benefit in the long run.” Going forward, policymakers must consider “the complete climate ramifications of LNG exports.”¹²²⁶ *E&E News*, reporting on the study, quoted one of the authors as saying, “The implications of our paper are that the

¹²²² Mandel, J., & Soraghan, M. (2018, February 12). Feds order partial shutdown at Cheniere LNG export site. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060073537>

¹²²³ Schleifstein, M. (2018, February 10). Sabine Pass LNG ordered to shut down leaking gas storage tanks. *Nola.com*. Retrieved from

http://www.nola.com/environment/index.ssf/2018/02/sabine_pass_lng_ordered_to_shu.html

¹²²⁴ Klump, E., & Soraghan M. (2018, March 22). Cheniere says no public danger from Sabine Pass leaks. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060077135>

¹²²⁵ Cheniere settles Sabine Pass LNG tanks issue with PHMSA. *LNG World News*. Retrieved from <https://www.lngworldnews.com/cheniere-settles-sabine-pass-lng-tanks-issue-with-phmsa/>

¹²²⁶ Gilbert, A. Q., & Sovacool, B. K. (2017). US liquefied natural gas (LNG) exports: Boom or bust for the global climate? *Energy*, 141, 1671-1680. doi: 0.1016/j.energy.2017.11.098

greenhouse gas impacts from exporting U.S. natural gas...here at home and abroad, can be very, very bad.”¹²²⁷

- November 16, 2017 – A legal analysis in the *Energy Law Journal* examined the contested decision by the Federal Energy Regulatory Commission to authorize the expansion of the Dominion Cove Point LNG facility to allow for export as well as import activity, by examining the multiple direct and indirect effects of the expansion. Direct effects included impacts on water quality, the North Atlantic right whale, and the public safety of local residents. Indirect effects included an increase in domestic fracking, increase in tanker traffic, and exacerbation of climate change as export markets increase demand for natural gas. Because this latter set of problems is not directly related to facility expansion but rather to increased LNG exports, two different federal agencies have jurisdiction. The responsibilities of FERC and the Department of Energy (DOE) were clarified regarding this distinction. FERC handles the environmental review, while the DOE regulates export of LNG. In the case of Cove Point, FERC had issued a finding of no significant impact and was therefore not legally required to investigate indirect effects such as climate change. The analysis therefore concluded that FERC followed proper procedures and that the DOE would be a more appropriate target of legal action because of its control over LNG exports. This analysis reveals the diffusion of responsibility among federal agencies regulating LNG facilities and the legal difficulties of addressing far-removed, indirect harms.¹²²⁸
- July 25, 2017 – Citing volatile market conditions, Malaysia’s energy giant Petronas cancelled plans for a massive LNG export terminal at the mouth of the Skeena River on British Columbia’s remote northwest coast in Canada. As reported extensively by *The Tyee*, the project was the target of intense protest by First Nations people and the subject of many lawsuits, as it threatened public health and would industrialize pristine salmon habitat. “At one time as many as twenty LNG projects were proposed for coastal communities, but not one has been built. The majority of largely Asian-backed proponents have now cancelled or deferred their projects. A 50 percent drop in global oil prices combined with a 70 percent drop in global LNG prices forced Petronas to...scuttle a number of projects over the last two years.”¹²²⁹
- July 10, 2017 – Using a lifecycle assessment and optimization analysis to forecast the environmental impacts of LNG, researchers modeled three usage scenarios: hydrogen production; electricity generation; and vehicle fuel. The model assumed LNG transport by pipeline only, and not by tanker. The highest environmental impact in each case was

¹²²⁷ Gilmer, E. M., & Mandel, J. (2017, December 15). Increased LNG exports would spell trouble for climate – study. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060069129>

¹²²⁸ Rhodes, K. (2017). The weakest link: The consistent refusal to consider far-removed indirect effects of the expansion of LNG terminals. *Energy Law Journal*, 38 (2), 431-453.

¹²²⁹ Nikiforuk, A. (2017, July 25). ‘Basic economics’ kill \$11-billion LNG project on BC’s coast. *The Tyee*. Retrieved from https://thetyee.ca/News/2017/07/25/LNG-Project-BC-Coast-Killed/?utm_source=facebook&utm_medium=social&utm_content=072517-4&utm_campaign=editorial-0717

global warming potential (GWP), and the highest GWP occurred when LNG was used as vehicle fuel.¹²³⁰

- April 11, 2017 – The World Bank Group, which makes loans to developing nations for capital projects like infrastructure, released environmental, health, and safety guidelines for LNG facilities. These guidelines address the risks of spills, fire, explosions, air quality impacts, venting, flaring, and fugitive emissions. Also addressed was the danger of “roll-over,” a phenomenon that occurs when layers of LNG of different density in a storage tank mix inappropriately. The result can be a rapid release of vapors and rise in pressure, potentially leading to catastrophic structural damage of the tank.¹²³¹
- March 30, 2017 – Transportation researchers identified and assessed potential risks to public safety from LNG transport on inland waterways and as a fuel for vessels and ferries. The hazards included the possibility of collision with other ships or with stationary objects such as bridges, as well as the threats of vapor release, flash and jet fires, boiling liquid expanding vapor explosion, and rapid phase transition. Firefighting strategies for different scenarios were proposed.¹²³²
- March 9, 2017 – Liquefaction, LNG transport, and LNG evaporation determined more than 50 percent of LNG’s global warming potential (GWP) in a “cradle to gate” life cycle analysis of LNG imported to the UK from Qatar. The analysis confirmed the dangerous effect of fugitive methane emissions on the total GWP of the supply chain. Other important parameters affecting GWP included the shipping distance and the tank volume.¹²³³
- December 22, 2016 – Methane emissions from the heavy-duty transportation sector have climate change implications, according to a “pump-to-wheels” evaluation of natural gas powered vehicles and the compressed natural gas and LNG stations that fuel them. While fueling stations themselves leak methane, tailpipe and crankcase emissions were the highest sources.¹²³⁴
- May 2, 2016 –The potential economic and greenhouse gas (GHG) impacts of importing LNG to Hawaii for electricity generation was modeled. Methane is a potent GHG, and although the use of LNG would decrease the local GHG output of Hawaii’s electrical

¹²³⁰ Zhang, Y., Jiang, H., Li, J., Shao, S., Hou, H., Qi, Y., & Zhang, S. (2017). Life cycle assessment and optimization analysis of different LNG usage scenarios. *International Journal of Life Cycle Assessment*. Advance online publication. doi: 10.1007/s11367-017-1347-2

¹²³¹ World Bank Group. (2017). Environmental, health, and safety guidelines for liquefied natural gas facilities. Retrieved from https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_policy_ehs-lng

¹²³² Galieriková, A., Kalina, T., & Sosedová, J. (2017). Threats and risks during transportation of LNG on European inland waterways. *Transport Problems*, 12(1), 73-81. doi: 10.20858/tp.2017.12.1.7

¹²³³ Tagliaferri, C., Clift, R., Lettieri, P., & Chapman, C. (2017). Liquefied natural gas for the UK: A life cycle assessment. *International Journal of Life Cycle Assessment*, 22, 1944–1956. doi: 10.1007/s11367-017-1285-z

¹²³⁴ Clark, N. N., McKain, D. L., Johnson, D. R., Wayne, W. S., Li, H., Akkerman, V., ... Ugarte, O. J. (2017). Pump-to-wheels methane emissions from the heavy-duty transportation sector. *Environmental Science & Technology*, 51(2), 968-976. doi: 10.1021/acs.est.5b06059

sector, lifecycle (global) GHG emissions would likely increase. This study did not examine other potential environmental impacts of LNG. Currently, the majority of Hawaii's electricity is provided by oil-fired generation.¹²³⁵

- November 12, 2015 – New York Governor Andrew Cuomo rejected a heavily contested proposal to construct an LNG terminal 19 miles off the coast of Long Island. From his letter to the Maritime Administration: “The security and economic risks far outweigh any potential benefits....The potential for disaster with this project during extreme weather or amid other security risks is simply unacceptable.” The governor also noted the risks posed to scallop and squid fisheries as well as the project's conflict with a proposed large-scale, offshore wind farm.¹²³⁶
- September 30, 2015 – Measurements of the gaseous and particulate emissions of a cruise ferry on the Baltic Sea using a dual-fuel engine showed that LNG is not a clean fuel for ships. Methane made up about 85 percent of the vessel's hydrocarbon emissions. Particulate emissions showed a huge amount of volatile and nonvolatile particles, both of which are hazardous to human health.¹²³⁷
- September 26, 2014 – The U.S. Government Accountability Office (GAO) issued a report of the federal process for reviewing applications to export LNG. As part of the process, the DOE and FERC consider public comment. Numerous environmental concerns include the risk that exports will increase hydro-fracking for natural gas, along with its associated environmental effects and greenhouse gas emissions. Under the National Environmental Policy Act, the DOE must consider the environmental effects of its decisions.¹²³⁸
- April 23, 2014 –The dynamics and hazards from a LNG spill are not well understood and require further research, according to a comprehensive review of research into the LNG production chain from Australia that examined vapor production, vapor dispersion, and mechanisms of combustion. Noting the “intrinsic process safety issues” of LNG as well as potential attraction as a terrorist target, authors described various threats to human safety, including pool fires, jet fires, and vapor cloud explosions.¹²³⁹
- December 14, 2009 – Certain LNG hazards are not “understood well enough to support a terminal siting approval,” according to a Congressional Research Service (CRS) report that summarizes LNG hazards in the context of federal rules related to where LNG

¹²³⁵ Coffman, M., Bernstein, P., Wee, S., & Schafer, C. (2017). Economic and GHG impacts of natural gas for Hawaii. *Environmental Economics and Policy Studies*, 19, 519–536. doi: 10.1007/s10018-016-0157-2

¹²³⁶ Santora, M. (2015, November 12). Cuomo rejects natural gas port proposed off Long Island. *The New York Times*. Retrieved from https://www.nytimes.com/2015/11/13/nyregion/cuomo-rejects-natural-gas-port-proposed-off-long-island.html?_r=0

¹²³⁷ Anderson, M., Salo, K., & Fridell, E. (2015). Particle- and gaseous emissions from an LNG powered ship. *Environmental Science & Technology*, 49, 12568–12575. doi: 10.1021/acs.est.5b02678

¹²³⁸ U.S. Government Accountability Office. (2014, September). *Federal approval process for liquefied natural gas exports*. GAO-14-762. Retrieved from <https://www.gao.gov/assets/670/666177.pdf>

¹²³⁹ Ikealumba, W. C., & Wu, H. Some recent advances in liquefied natural gas (LNG) production, spill, dispersion, and safety. *Energy & Fuels*, 28(6), 3556–3586. doi: 10.1021/ef500626u

terminals are located. Potential risks include pool fires and flammable vapor clouds, as well as the possibility of terrorist attacks. The analysis points out the need for additional LNG safety research.¹²⁴⁰

- July 7, 2009 – Because LNG projects are among the most expensive energy projects, the reserves of gas to justify the investment need to be large enough to guarantee about 30 years of production, according to a report by the Joint Research Centre of the European Union.¹²⁴¹
- May 13, 2008 – LNG infrastructure is “inherently hazardous and it is potentially attractive to terrorists,” according to a CRS study that was prepared at a time when the United States was a net importer of LNG. Security of tankers, import terminals, and inland storage plants were identified as issues of concern. Serious risks include pool fires with intense heat, which can occur when LNG spills near an ignition source; flammable vapor clouds that can drift until reaching an ignition source; and a rapid phase transition that can generate a flameless explosion. As per this report, there have been 13 serious accidents at onshore LNG terminals since 1944.¹²⁴²
- February 22, 2007 – The GAO examined the results of studies on the consequences of an LNG spill and discussed expert opinion about the consequences of a terrorist attack on an LNG tanker. The studies indicate that 30 seconds of exposure to the heat of an LNG fire could cause burns up to a distance of about one mile. The experts concluded that this would be the most likely public safety hazard, with the risk of explosion less likely. Recommendations were made for further studies, including evaluating the possibility of “cascading failure,” where multiple LNG tanks on a ship might fail in sequence.¹²⁴³
- September 9, 2003 – As part of a larger investigation of potential terrorist targets in wake of the 9/11 attacks, the CRS provided a background report to the U.S. Congress on the security of LNG terminals in the United States. At the time, the United States was a net importer of natural gas, and LNG was shipped from overseas to U.S. ports. CRS identified LNG tanker ships and storage infrastructure as “vulnerable to terrorism,” noting that tankers could be turned as weapons against coastal cities and that inland LNG facilities are typically located near large population centers. The CRS further noted that

¹²⁴⁰ [Name redacted]. (2009, December). *Liquefied natural gas (LNG) import terminals: Siting, safety, and regulation*. Congressional Research Service. RL32205. Retrieved from https://www.everycrsreport.com/files/20091214_RL32205_e95cb50c88dbd56a2c8f706b2d521ef7ae81ee00.pdf

¹²⁴¹ Kavalov, B., Petric, H., & Georgakaki, A. (2009). *Liquefied natural gas for Europe—some important issues for consideration*. European Commission Joint Research Centre, Reference Report. doi: 10.2790/1045.

¹²⁴² Parfomak, P. W. (2008, May). *Liquefied natural gas (LNG) infrastructure security: Issues for Congress*. Congressional Research Service. RL32073. Retrieved from <https://www.hsdl.org/?view&did=486464>

¹²⁴³ U.S. Government Accountability Office. (2007, February). *Public safety consequences of a terrorist attack on a tanker carrying liquefied natural gas need clarification*. GAO-07-316. Retrieved from <https://www.gao.gov/new.items/d07316.pdf>

the public cost of security for LNG shipments, via Coast Guard escorts of tankers through coastal shipping channels, was considerable (\$40,000-\$80,000 per tanker).¹²⁴⁴

- August 1, 1995 – The U.S. Department of Transportation identified three important hazardous properties of LNG: flammability hazards (fire or explosion from ignition of leaks); toxicity hazards (asphyxiation from exposure to non-odorized fuel gas); cryogenic hazards (personal injury plus structural failure of equipment from prolonged exposure to extremely cold temperatures.)¹²⁴⁵

Gas-fired power plants

Found in every state except Vermont, natural gas-fired power plants surpassed coal-burning plants as the leading source of electrical generation in the United States in 2016. There are two types of gas-fueled power plants: combined cycle plants and simple cycle plants. Both types are major emitters of carbon dioxide, uncombusted methane, and nitrogen oxides, which contribute to the formation of ground-level ozone (smog). Combined cycle gas plants reuse waste heat to generate additional electricity and are roughly equivalent in efficiency to an older coal plant. Simple cycle gas plants—also called peaker plants—can be turned on and off faster to meet fluctuating energy demands when electricity needs peak, but they are much less efficient and more polluting than combined cycle plants. Simple cycle peaker plants can often generate more nitrogen oxides and more carbon monoxide than coal plants.

Gas-fired combined cycle plants were formerly promoted as a bridge to reduce emissions while renewables ramp up. However, within the last four years, renewable prices have fallen low enough to allow a transition directly from coal to solar and wind power, revealing that gas plants, with long returns on investment, are more barrier than bridge to renewable energy. At the same time, the lifecycle emissions of both types of gas-fired power plants have been shown to be far higher than previously estimated. New natural gas plants lock in demand for gas for longer than current climate scenarios dictate, which call for net-zero carbon emissions by mid-century. Gas plants thus risk becoming stranded assets, meaning that they would need to be decommissioned well before the end of their lifespan.

Gas-fired simple cycle plants used on demand as peakers are becoming obsolete as battery technology now allows for the storage of renewable energy, decreasing the need for gas plants to provide power in times of peak demand.

Emerging evidence shows a variety of health impacts to people living near gas-fired power plants.

¹²⁴⁴ Congressional Research Service. (2003, September 9). *Liquefied natural gas (LNG) infrastructure security: Background and issues for Congress*. Retrieved from http://www.energy.ca.gov/lng/documents/CRS_RPT_LNG_INFRA_SECURITY.PDF

¹²⁴⁵ U.S. Dept. of Transportation, Federal Transit Administration. (1995, August 1). *Summary of assessment of the safety, health, environmental and system risks of alternative fuel*. Retrieved from <https://rosap.ntl.bts.gov/view/dot/8403>

- February 11, 2019 – The mayor of Los Angeles announced that the city will close rather than modernize three gas-fired power plants after the California legislature passed a bill requiring the state to get 100 percent of its electrical power from climate-friendly sources by 2045. Instead, the city will pursue clean energy technologies with battery storage. The Scattergood, Haynes, and Harbor natural gas plants will be phased out by 2029.¹²⁴⁶ In a press statement, Los Angeles mayor Eric Garcetti said, “This is the beginning of the end of natural gas in Los Angeles. The climate crisis demands that we move more quickly to end dependence on fossil fuel, and that’s what today is all about.”¹²⁴⁷
- February 8, 2019 – The Arizona Corporation Commission voted to extend the state moratorium on buying or building new gas-fired power plants and called for energy storage to provide peak power rather than additional natural gas plants.¹²⁴⁸
- April 1, 2018 – Integrating environmental, economic, and social factors to evaluate overall sustainability, a British team compared shale gas with other electricity options in the United Kingdom. Fracking emerged as one of the least sustainable ways to produce electricity. Specifically, shale gas ranked seventh out of nine options for electrical generation, with wind and solar energy scoring the best and coal the worst. These results suggest that “a future electricity mix ... would be more sustainable with a lower rather than a higher share of shale gas.”^{1249, 1250}
- July 14, 2017 – A European team evaluated the performance of coal- and gas-fired power plants that are used to back up renewable energy as the European Union transitions to greater reliance renewable sources for electrical generation. As renewables increasingly dominate, traditional fossil fuel plants will be required to ramp up and down and cycle on and off more frequently, However, these ramping and cycling events will negatively impact the operation of the fossil fuel power plants, as they will become fatigued, resulting in higher operational and maintenance costs, reduced lifetime, degraded performance, and higher emissions of air pollution over time. Gas plants are generally more efficient, faster, and less polluting than coal, but under certain conditions will

¹²⁴⁶ Associated Press. (2019, February 11). Mayor: LA will ditch plan to rebuild natural gas plants. *U.S. News & World Report*. Retrieved from <https://www.usnews.com/news/best-states/california/articles/2019-02-11/mayor-la-will-ditch-plan-to-invest-billions-in-fossil-fuels>

¹²⁴⁷ Groom, N. (2019, February 12). Los Angeles abandons new natural gas plants in favor of renewables. *Reuters*. Retrieved from <https://www.reuters.com/article/us-usa-california-natgas/los-angeles-abandons-new-natural-gas-plants-in-favor-of-renewables-idUSKCN1Q12C9>

¹²⁴⁸ Wichner, D. (2019, February 8). Regulators extend ban on new gas power plants in Arizona. *Arizona Daily Star*. Retrieved from https://tucson.com/business/regulators-extend-ban-on-new-gas-power-plants-in-arizona/article_5d492ca0-5763-5fe5-8eac-29f63cbe2b72.html

¹²⁴⁹ Cooper, J., Stamford, L., & Azapagic, A. (2018). Sustainability of UK shale gas in comparison with other electricity options: Current situation and future scenarios. *Science of The Total Environment*, 619-620, 804-814. doi: 10.1016/j.scitotenv.2017.11.140

¹²⁵⁰ Gabatiss, Josh. (2018, January 16). Fracking is one of the least sustainable ways to produce electricity. *The Independent*. Retrieved from <https://www.independent.co.uk/environment/fracking-electricity-production-energy-shale-gas-extraction-sustainable-a8160661.html>

produce more nitrogen oxides (a component of smog) and more carbon monoxide than coal-fired plants. Current fossil fuel technology will need significant and costly improvements in order to handle the increased gradients, number of starts, lower minimum load and emissions.¹²⁵¹

- February 1, 2017 – There is a high degree of uncertainty about the methane emissions from natural gas-fired power plants. As part of a study that also included oil refineries, a Purdue University team evaluated methane emissions from three gas-fired power plants in Utah, Indiana, and Illinois during hours of peak operation. Both fugitive methane leaks from the facility at large as well as uncombusted methane from the stacks were measured using aircraft. Results showed that average methane emission rates were larger than facility-reported estimates by factors of 21-120. The authors concluded that gas-fired power plants “may be significant contributors to annual methane emissions in the U.S. despite lack of facility emission reporting in U.S. inventories. Furthermore, results suggest that the primary source of methane emissions at these facilities may be from noncombustion sources.”¹²⁵²
- June 28, 2015 – Pregnant women living near gas-fired power plants were more likely to give birth prematurely, according to a study of more than 400,000 infants born in Florida between 2004 and 2005. This study investigated associations between adverse birth outcomes and residential proximity to several types of power plants, including those burning oil, gas, and solid waste.¹²⁵³
- September 22, 2012 – An investigation of methane and nitrous oxide emissions at eight different gas-fired power plants in Korea found that emissions can vary depending on combustion technologies. Results from this study differed both from those used as default emission rates by the Intergovernmental Panel on Climate Change and from those measured in Japan. The authors concluded that technology-specific and country-specific emission factors for gas-fired power plants need to be established.¹²⁵⁴
- February 27, 2012 – Using hospitalization data, a research team working in New York State examined whether living near a fuel-fired power plant increased the rate of hospitalization for asthma, acute respiratory infections, and chronic obstructive pulmonary disease, all of which have known links to air pollution exposure. Preliminary analyses of hospitalization rates associated with a residence in a zip code with a power plant stratified by type of fuel used (coal, gas, oil, or solid waste) did not show clear or

¹²⁵¹ Gonzalez-Salazar, M. A., Kirsten, T., & Prchlik, L. (2018). Review of the operational flexibility and emissions of gas- and coal-fired power plants in a future with growing renewables. *Renewable and Sustainable Energy Reviews*, 82, Part 1, 1497-1513. Advance online publication. doi: 10.1016/j.rser.2017.05.278

¹²⁵² Lavoie, T. N., Shepson, P. B., Gore, C. A., Stirm, B. H., Kaeser, R., Wulle, B., . . . Rudek, J. (2017). Assessing the methane emissions from natural gas-fired power plants and oil refineries. *Environmental Science & Technology*, 51(6), 3373-3381. doi 10.1021/acs.est.6b05531

¹²⁵³ Ha, S., Hu, H., Roth, J., Kan, H., & Xu, X. (2015). Associations between residential proximity to power plants and adverse birth outcomes. *American Journal of Epidemiology*, 182(3), 215-224. doi: 10.1093/aje/kwv042

¹²⁵⁴ Lee, S., Kim, J., Lee, J., Lee, S., & Jeon, E.-C.. (2012). A study on the evaluations of emission factors and uncertainty ranges for methane and nitrous oxide from combined-cycle power plant in Korea. *Environmental Science and Pollution Research*, 20(1), 461-468. doi: 10.1007/s11356-012-1144-1

consistent patterns. Therefore, patients were classified as exposed if they lived in a zip code with at least one power plant in it regardless of the type of fuel used. After adjusting for age, sex, race, median household income, and rural/urban residence, the research team found significantly elevated rates of hospitalization for asthma (11 percent increase), acute respiratory infection (15 percent increase), and chronic obstructive pulmonary disease (17 percent increase) among New Yorkers living near at least one fuel-fired power plant.¹²⁵⁵

- October 20, 2011 – Emergency room visits and hospital admissions in elderly people living close to a new gas-fired power plant in Italy were counted and related to levels of air pollution both before and after the plants became operational. The results showed that ambient levels of nitrogen oxides and particulate matter rose after the plant started operations. Further, despite the fact that pollutants were below the limits set by the European legislation, there was a positive correlation between number of emergency room visits and daily concentrations of these air pollutants among nearby residents aged 70 or older.¹²⁵⁶
- April 5, 2010 – Most new fossil fuel power plants are gas-powered. In this study, a research team estimated the number of premature deaths from fine particulate matter that would result from bringing 29 proposed fossil-fuel power plants in Virginia on line. Their modelling predicted that, were all 29 plants made operational, concentrations of fine particulate air pollution would rise in 271 counties across 19 states. Over a six-year period, 104 cumulative excess deaths would occur due to operations of these proposed plants.¹²⁵⁷

¹²⁵⁵ Liu, X., Lessner, L., & Carpenter, D. O. (2012). Association between residential proximity to fuel-fired power plants and hospitalization rate for respiratory diseases. *Environmental Health Perspectives*, 120(6), 807–810. doi: 10.1289/ehp.1104146

¹²⁵⁶ Di Ciaula, A. (2012). Emergency visits and hospital admissions in aged people living close to a gas-fired power plant. *European Journal of Internal Medicine*, 23(2), e53-e58. Advance online publication. doi: 10.1016/j.ejim.2011.09.013

¹²⁵⁷ Hermann, R. P., Divita Jr, F., & Lanier, J. O. (2010). Predicting premature mortality from new power plant development in Virginia. *Archives of Environmental Health*, 59(10). doi: 10.1080/00039890409605170

Inaccurate jobs claims, increased crime rates, threats to property values and mortgages, and local government burden

According to multiple studies in multiple states, the oil and gas industry's promises of job creation from drilling for natural gas have been greatly exaggerated. Many of the jobs are short-lived, have gone to out-of-area workers, and, increasingly, are lost to automation. With the arrival of drilling and fracking operations, communities have experienced steep increases in rates of crime, variously including assault, rape, sex trafficking, larceny, and auto theft. In the Marcellus Shale region, violent crime increased 30 percent in counties that experienced a fracking boom compared to those without fracking. Aggravated and sexual assaults were the crimes primarily responsible for this increase. Crime rates have increased even with additional allocation of funds for public safety. Financial and other strains on municipal services include those on law enforcement, road maintenance, emergency services, and public school district administration. In Texas alone, road damage and other transportation impacts costs an estimated \$1.5-\$2 billion a year. In shale boom areas across the United States, school districts report heightened stress, regardless of whether student funding increased or decreased. Economists are increasingly quantifying community quality of life impacts and the unequal distribution of costs and benefits associated with drilling and fracking. Drilling and fracking pose an inherent conflict with mortgages and property insurance due to the hazardous materials used and the associated risks. With the departure of drilling and fracking operations from these communities, some of the challenges are eased. However, such departures can also lead to additional economic harms, such as by sharp upticks in foreclosures, late car and mortgage payments, empty housing units, and failed or diminished local businesses.

- March 14, 2019 – A Canadian team reviewed the research published between 2009–2018 on the impacts on communities of “the whole suite of technologies that aid in the exploration, extraction, and transportation” of natural gas. This first review of impacts across the supply chain found most of the studies addressed upstream communities (those adjacent to the gas extraction), and that midstream and downstream communities were understudied. Midstream communities were those located in transportation corridors, such as near pipelines, and downstream communities were those near processing and shipping facilities. The study identified 28 community impacts across four broad categories: environmental impacts; impacts to infrastructure and service delivery; impacts on policy, regulation, and participation in decision-making; and socioeconomic impacts. In each area, the reviewers identified common findings, mixed results across studies, and research gaps. For social service delivery, for example, the review found significant effects from the boom and bust cycles. In the boom cycle these included “increased pressure on limited infrastructure, affordable housing and daycare, recreational and child/youth programs, and social services to address alcohol and drug addictions, domestic violence, and crime.” In the bust cycle there is a continued need for social services, especially as created by unemployment, economic hardship, local business closures, dropping property values, and out-migration. In this period though, there may

be cuts to social services, and “peer-reviewed articles rarely focused on the capacity of local governments to address impacts before, during, and after they happen.”¹²⁵⁸

- December 10, 2018 – Although Pennsylvania has been able to realize modest short-term economic growth from fracking, policy researchers found that the state has also allowed costs to be externalized to public health, the environment, and community integrity. Despite emerging evidence on adverse public health effects, there remain significant uncertainties about these externalized costs, especially with regard to the long term. Research done in the state has shown “significant remaining uncertainties in detecting and attributing responsibility for groundwater contamination” associated with fracking. Intensive gas extraction in Pennsylvania can strain communities by several pathways: increased demand for emergency medical and mental health services; loss of housing for low income residents displaced by temporary, out-of-state workers; and increased traffic violations and arrests for driving under the influence. Emergencies at fracking sites can also strain or exceed the capabilities of local emergency response organizations. At the state level, policy weaknesses include failure to mandate the disclosure of fracking chemicals, failure to exercise adequate inspection and enforcement, and failure to institutionalize “stewardship of rents extracted from a nonrenewable resource for future generations.”¹²⁵⁹
- November 21, 2018 – The presence of drilling and fracking operations is linked with fewer visits to overnight recreation sites in National Forests in western states. As part of a USDA Forest Service study that analyzed visitor use data from 27 National Forests with 722 overnight use areas, researchers found that, on average, each additional oil or gas well within a five-kilometer radius of a site was linked to six fewer visits annually. Within a five-kilometer radius, the distance between the well and the campground was not a significant factor. The researchers did not speculate on the overall user experience but wrote that their results do “suggest that the presence of oil and gas development may have a significant enough effect on the user experience to motivate users to recreate elsewhere.”¹²⁶⁰
- October 28, 2018 – In 15 states between 2000 and 2013, intensive shale oil and gas drilling activity was linked with 41,760 fewer students enrolled in school per year in grades 11 and 12. This phenomenon was greatest in states with a younger compulsory schooling age (16 years of age instead of 17 or 18), in states with a lower effective tax rate on oil and gas production, and in rural counties with traditional mining or persistent poverty.¹²⁶¹ The results of the study, conducted by a team of economists, aligned with

¹²⁵⁸ Buse, C. G., Sax, M., Nowak, N., Jackson, J., Fresco, T., Fyfe, T., & Halseth, G. (2019). Locating community impacts of unconventional natural gas across the supply chain: A scoping review. *The Extractive Industries and Society*, 6(20), 620-629. doi: 10.1016/j.exis.2019.03.002

¹²⁵⁹ Chalfant, B. A., & Corrigan, C. C. (2019). Governing unconventional oil and gas extraction: The case of Pennsylvania. *Review of Policy Research*, 36(1). Advance online publication. doi: 10.1111/ropr.12319

¹²⁶⁰ Rasch, R., Reeves, M., & Sorenson, C. (2018). Does oil and gas development impact recreation visits to public lands? A cross-sectional analysis of overnight recreation site use at 27 national forests with oil and gas development. *Journal of Outdoor Recreation and Tourism*. 24, 45-51. doi: 10.1016/j.jort.2018.11.001

¹²⁶¹ Zuo, N., Schieffer, J., & Buck, S. (2019). The effect of the oil and gas boom on schooling decisions in the U.S. *Resource and Energy Economics*, 55, 1-23. doi: 10.1016/j.reseneeco.2018.10.002

historical evidence from the 1970s energy boom as well as complementary research from the 2000s, both showing that oil and gas booms “can discourage educational attainment by increasing the opportunity cost for students to stay in school.” (See entry below for July 2015.)

- September 24, 2018 – An *E&E* investigation examined cities in North Dakota, Pennsylvania, and Oklahoma that are experiencing lingering financial and social disruptions following oil and gas booms. In Oklahoma, “the state Legislature is trying to fix what some viewed as a string of bad fiscal decisions that led to cuts in education and other services.” In Pennsylvania, communities are still roiled by “a series of bitter disputes about whether local landowners were getting their fair share of royalties from gas drilling.” In North Dakota, the debt held by the city of Williston was high for a town its size, with its manageability dependent on continuing oil tax income from the state.¹²⁶²
- August 22, 2018 – Marking a decade since Marcellus Shale fracking began in earnest, a five-university research team presented a review of impacts to people, policy, and culture in the greater mid-Atlantic region of the United States. The review’s geographic and thematic sections address a range of impacts on Pennsylvania communities and a discussion of the less-studied communities in West Virginia and Ohio undergoing fracking. Economic impacts in Pennsylvania, contrary to what political and business interests typically tout, are mixed. Employment data showed that positive effects for local residents “are relatively small and temporary, in large part because much of the employment benefits from the activity goes to workers living outside the host communities.” Further, among local residents, economic benefits were unequally distributed based on land ownership. In Pennsylvania, about half of lease and royalty dollars accrue to the top 10 percent of local landowners who owned the most acreage, while the bottom 70 percent of landowners collectively receive only 2.8 percent of all such dollars. “The vast majority of local residents were not rural landowners and thus were unable to take advantage of gas leasing for revenue.” For poorer residents in fracking areas, “radically tightening housing markets, coupled with skyrocketing housing costs,” presented fundamental economic hardships.¹²⁶³
- June 6, 2018 – Uneven distribution of economic/service-related benefits and social/environmental costs characterize the Barnett and the Eagle Ford shale plays in Texas, according to an analysis of shale energy development in the southern United States that included both objective and perceived effects. Transportation-related hazards, deemed “the big one,” were seen as the primary concern to community leaders and residents. Multiple sources and study types corroborated the objective transportation trends and harms. For example, a survey of county and city public officials in the 15-county Eagle Ford Shale region concluded that increasing transportation demands resulting from fracking “have not been met with needed state resources to maintain

¹²⁶² Lee, M., & King, P. (2018, September 24). These places rode out the boom and bust. Now what? *E&E News*. Retrieved from <https://www.eenews.net/stories/1060099341>

¹²⁶³ Jacquet, J. B., Junod, A. N., Bugden, D., Wildermuth, G., Fergen, J. T., Jalbert, K., . . . Ladlee, J. (2018). A decade of Marcellus Shale: Impacts to people, policy, and culture from 2008 to 2018 in the Greater Mid-Atlantic region of the United States. *The Extractive Industries and Society*, 5, 596-609. doi: 10.1016/j.exis.2018.06.006

and/or upgrade transportation facilities to meet the increased volume and weight of vehicles using the transportation system in local communities.” An Academy of Medicine, Engineering and Science of Texas Task Force on Environmental and Community Impacts of Shale Development in Texas likewise concluded, “the level of funding to address the impacts to the transportation infrastructure and traffic safety in the oil and gas industry area is low relative to the magnitude of the impact.” This analysis also described uneven distribution of benefits. For example, individuals and energy companies located outside of the region held 96 percent of Eagle Ford mineral wealth.¹²⁶⁴

- March 4, 2018 – Local governments in highly rural regions experiencing large-scale growth in oil and gas activity faced the greatest fiscal challenges, according to a study evaluating the effects of this development in 21 U.S. regions during boom and bust periods. “Increased crime, vehicle accidents, and other public safety issues were major challenges,” and “the scale of these challenges tended to track the scale of population growth and a region's rurality.” Though revenues from property and sales taxes and other sources resulted in a net gain for many local governments, the volatility of industry activity and population growth created especially difficult challenges for some municipalities. In a rural western Colorado city, for example, residents were faced with increased taxes, as well as increased water and wastewater fees to service the debt incurred by needed upgrades.¹²⁶⁵
- February 13, 2018 – Economists found that Oklahoma home prices in 2006 to 2014 declined by three to four percent after experiencing a moderate earthquake. Further, sale prices for the properties affected by the most intense earthquakes were estimated to have declined from 3.5-10.3 percent. The study also found that houses were on the market significantly longer following earthquake exposure. The intensity of a quake for each property was determined by linking earthquake magnitude to the distance of the home from its epicenter. The researchers wrote, “Oklahoma provides an exceptional case study as the state most affected by sudden changes in seismic frequency and intensity,” and that although the exact proportion of earthquakes induced by oil and gas activity is not certain, “the Oklahoma Geological Survey has recognized that the majority of earthquakes are likely to be induced.” They concluded that the rise in earthquake activity “has inflicted substantial costs on homeowners in Oklahoma.”¹²⁶⁶
- January 25, 2018 – In the Marcellus Shale region, counties experiencing a fracking boom suffered a 30 percent increase in violent crime, compared to those with no gas boom. Aggravated and sexual assaults were the crimes primarily responsible for this increase. This research took advantage of “natural experiment” conditions in the region, with a prohibition on fracking in New York State and a fracking boom across the border in Pennsylvania. The study used 2004 to 2012 county-level data from New York and

¹²⁶⁴ Theodori, G. L. (2018). Shale energy development in the Southern United States: A review of perceived and objective social impacts. *The Extractive Industries and Society*, 5, 610-618. doi: 10.1016/j.exis.2018.05.006

¹²⁶⁵ Newell, R. G., & Raimi, D. (2018). The fiscal impact of increased U.S. oil and gas development on local governments. *Energy Policy*, 117, 14-24. doi: 10.1016/j.enpol.2018.02.042

¹²⁶⁶ Cheung, R., Wetherell, D., & Whitaker, S. (2018). Induced earthquakes and housing markets: Evidence from Oklahoma. *Regional Science and Urban Economics*, 69, 153-166. doi: 10.1016/j.regsciurbeco.2018.01.004

Pennsylvania Marcellus Shale regions, on unconventional gas wells drilled, and on seven “FBI Index I” offenses. The offenses were violent crimes (aggravated assault, rape, robbery, and murder) and property crimes (larceny, burglary, and auto theft). While violent crimes increased in fracking boom areas, property crimes did not. The research featured many controls to isolate the effects of the fracking economy on crime rates. In addition, “victimization costs” were estimated to be \$8.1 million per year in high fracking counties. “Policymakers along with oil and natural gas proponents often cite the benefits in terms of jobs and income that are created in a community. However, the welfare costs of victims of crimes, among other issues, should also be considered to make optimal policy decisions.”¹²⁶⁷

- January 24, 2018 – The nearest full-time fire department to a deadly Quinton, Oklahoma natural gas rig explosion was nearly 30 miles away, according to an *E&E* investigation focusing on emergency response. “The deaths highlight a crucial fact of the drilling boom—much of it has occurred in rural areas where small-town police officers, sheriff’s deputies and volunteer firefighters are often the first responders.”¹²⁶⁸
- January 13, 2018 – Sex trafficking in oil boomtowns remains a huge problem, according to interviews with 185 health and social service professionals, criminal justice personnel, industry and community representatives, and victims of violence in the Bakken oil field region. These results are reflective of the growing literature on the topic. Interviewees shared information on increases in domestic violence, dating violence, sexual assault, stalking, and sex trafficking. Findings demonstrated that sex trafficking was linked to “a confluence of underlying forces including big oil money, an increase in drug cartels and drug use, degradation of women in a male-dominated workforce, increased access to weapons, and a rise in transient populations.” A noteworthy contribution of this study was the documentation that participants felt unprepared to address the needs of victims of sex trafficking, having very few resources, and limited background and experience with these problems.¹²⁶⁹
- December 12, 2017 – Fracking is unlikely to be a panacea for economically marginalized rural, suburban, or urban areas, and economic optimism regarding fracking tends to be overgeneralized, according to a study analyzing national data on socioeconomic wellbeing for the years 2000 to 2011. Researchers noted that large profits for industry and economic development “may not trickle down to residents living in high-production counties,” but instead often benefit a relative few, over a temporary time period. The study measured percentage of families below the poverty line in each county, average earnings, median household income, and employment status, to understand these socioeconomic impacts of oil and gas booms. Their literature review also uncovered a disparity in findings: “industry-funded studies have found substantial economic windfalls

¹²⁶⁷ Komarek, T. M. (2018). Crime and natural resource booms: Evidence from unconventional natural gas production. *The Annals of Regional Science*, 61, 113-137. doi: 10.1007/s00168-018-0861-x

¹²⁶⁸ Lee, M., & Soraghan, M. (2018, January 24). Rig wreckage probed for cause of deadly Okla. blast. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060071777>

¹²⁶⁹ Heitkamp, T. (2018, January 13). Sex trafficking in the Bakken Oil Fields. Presented at Society for Social Work and Research, Washington, DC. Retrieved from <https://sswr.confex.com/sswr/2018/webprogram/Paper32717.html>

related to extraction... but the peer-reviewed literature suggests mixed or modest effects.”¹²⁷⁰

- September 26, 2017 – The partial abandonment of the Eagle Ford Shale dramatically hurt small business owners, according to a report by *Bloomberg*. “As the shale drillers moved on to richer fields, the South Texas landscape became pockmarked with abandoned structures. This nimbleness—the ability to just pack up and leave at a moment’s notice—may give U.S. oil companies a competitive advantage against their more rigid state-run OPEC rivals, but there is a human cost to it all.” Concerning one tool and supply company in the region, the investigation found: “During the height of the Eagle Ford boom, R. Katz was supplying as many as 52 rigs and employing as many as 18 people in its office outside Cuero’s main strip. Today, it’s got 11 rig clients and three employees.”¹²⁷¹
- August 10, 2017 – Researchers from the independent, nonpartisan economic research group Resources for the Future studied the impacts of unconventional oil and gas booms on public school districts in the oil- and gas-producing states Pennsylvania, Ohio, West Virginia, North Dakota, Montana, and Colorado between 2000 and 2013. Using quantitative data analysis as well as extensive interviewing with parents and students in the districts, the study addressed the effects of recent oil and gas booms on student enrollment, teachers, public education finances, and student achievement metrics. Though divergent trends were found between school districts in the eastern versus western U.S., “nearly all boom districts reported heightened stress from financial volatility.” Though some districts had a statistically positive increase in per student funding while others had a decline, “the study found that greater revenues do not always translate into increased educational outcomes.... One western Colorado school district had to operate on a four-day-a-week schedule and cut academic programs because of increased economic volatility.”¹²⁷² As reported in *U.S. News and World Report*, “the boom-and-bust cycle of the industry was found to create overwhelming stress on local districts as students and teachers were moving in and out of a region to meet the economic demands of drilling.”¹²⁷³
- June 18, 2017 – A Shale Task Force of the Academy of Medicine, Engineering and Science of Texas (TAMEST) developed the report, *Environmental and Community Impacts of Shale Development in Texas*, a “first-of-its-kind, comprehensive review of scientific research and related findings regarding impacts of shale oil and gas production

¹²⁷⁰ Mayer, A., Olson-Hazboun, S. K., & Malin, S. (2018). Fracking fortunes: Economic wellbeing and oil and gas development along the urban-rural continuum. *Rural Sociology*, 83(3), 532-567. Advance online publication. doi: 10.1111/ruso.12198

¹²⁷¹ Murtaugh, D. (2017, September 26). The oil ghost towns of Texas. *Bloomberg*. Retrieved from <https://www.bloomberg.com/news/features/2017-09-26/the-oil-ghost-towns-of-texas>

¹²⁷² Ratledge, N., & Zachary, L. (2017). *Impacts of unconventional oil and gas booms on public education: A mixed-methods analysis of six producing states*. Retrieved from <http://www.rff.org/research/publications/impacts-unconventional-oil-and-gas-booms-public-education-mixed-methods>

¹²⁷³ Englert, E. (2017, August 10). Fracking brings challenges to local school systems. *U.S. News and World Report*. Retrieved from <https://www.usnews.com/news/national-news/articles/2017-08-10/fracking-brings-challenges-to-local-school-systems>

in Texas.” Transportation impacts included road damage costing Texas an estimated \$1.5 to \$2 billion a year, and rural crashes involving commercial vehicles increasing over 75 percent in some drilling regions. The number of fatal collisions in the Permian Basin doubled from 94 during 2006 to 2009, to 183 from 2010 to 2013. The report also noted that Texas is the only major oil and gas producing state without a “surface damage act” to protect landowners, who do not own the mineral rights on their land and have little control over oil and gas operations. The report, which also addressed topics such as seismicity, air, and water, noted that the various impacts of oil and gas development “can’t be studied or addressed in isolation.” Authors continued, “[t]hese connections are important and pervasive, but are not well-studied yet.” TAMEST includes all of the state’s Nobel Laureates, plus Texas-based members of the National Academies of Sciences, Engineering, and Medicine.¹²⁷⁴

- April 6, 2017 – The economic impacts of fracking at the advent of the Marcellus Shale boom is an understudied topic. The onset of fracking was so rapid that academics were challenged to provide accurate and timely information to policymakers, and the one major paper that did appear in 2011 did not clearly disclose its industry sponsorship. A Pennsylvania Department of Community & Economic Development-funded study set out to investigate those early years. In addition to scrutinizing available data, the authors conducted a survey of 1,000 landowners in Bradford and Tioga counties, the two counties with the most fracked wells in Pennsylvania at the start of the boom. From the 501 returned surveys, they determined residents saved more than half of their earliest royalty and lease income, which “may or may not ultimately be spent within Pennsylvania.” Hence, the windfalls from mineral rights created “little economic impact during the year received.” Further, the study’s overall “lower-bound” estimate of economic impacts for 2009 found that fully 15.4 percent of these mineral rights were owned by non-residents. At the same time, survey results showed that 37 percent of the workforce consisted of non-residents with only half of their income staying in the state. This study’s upper-bound jobs count for 2009 was substantially lower than the estimates that made at the time. In addition, the study urged caution regarding future jobs predictions, as the sharp decline between 2011 and 2013 “was totally unexpected” and was not captured in a 2010 forecast for jobs in 2020.¹²⁷⁵
- April 5, 2017 – Economists at Colorado State University quantified the “substantial environmental costs associated with hydraulic fracturing,” as part of an analysis of the market and non-market costs and benefits of fracking in 14 U.S. states. These costs were “dominated by \$27.2 billion (\$12.5–\$41.95 billion) health damages from air pollution.” They also found costs including “\$3.8 billion (\$1.15–\$5.89 billion) in greenhouse gas emissions, \$4 billion (\$3.5–\$4.45 billion) in wildlife habitat fragmentation, and \$1 billion (\$0.5–\$1.6 billion) in pollution of private drinking water wells.” Results also showed a disconnect between those reaping economic rewards from fracking and those paying the

¹²⁷⁴ The Academy of Medicine, Engineering and Science of Texas. (2017). *Environmental and Community Impacts of Shale Development in Texas*. Retrieved from <http://tamest.org/shale-task-force/>
doi: 10.25238/TAMESTstf.6.2017

¹²⁷⁵ Hoy, K. A., Kelsey, T. W., & Shields, M. (2017). An economic impact report of shale gas extraction in Pennsylvania with stricter assumptions. *Ecological Economics*, 138, 178-185. doi: 10.1016/j.ecolecon.2017.03.037

price: the “benefits” (mostly in the form of lower natural gas prices to residential, commercial, and industrial consumers) were geographically dispersed while the costs tended to concentrate in localized areas where drilling took place. Although the most comprehensive economic study to date, this analysis was not able to fully quantify all costs, including those related to water contamination (beyond surface-spill related costs for damage to private wells); diminishment of open spaces and aesthetics for community members; and seismic activity. The authors concluded that costs might well outweigh the benefits for suburban dwellers near fracking operations, as exemplified by Denton, Texas, where “nearly all the royalty money was flowing to mineral owners living elsewhere...rather than to adjacent homeowners.”¹²⁷⁶

- February 19, 2017 – The *New York Times* reported on the oil and gas industry’s embrace of automation and its threat to preserving and bringing back jobs. Executives interviewed as part of the investigation were straightforward in their intentions to shrink their work forces. “‘We want to transform our work force to the point where we need to hire fewer people,’ said Joey Hall, Pioneer’s executive vice president for Permian Operations.” In 2016 Pioneer Natural Resources added 240 wells in West Texas without adding any new employees. A vice president at a Pennsylvania manufacturer of drilling rigs stated, “If it’s a repetitive task, it can be automated, and I don’t need someone to do that. I can get a computer to do that.”¹²⁷⁷
- February 1, 2017 – Stanford University earth science professor Robert Jackson and two professors of law assessed how a new type of “conservation easement,” an established kind of legal agreement, could enable landowners to restrict fracking on their properties. A mineral estate conservation easement (MECE) can serve as a private landowner response to the demonstrable threats of fracking to property and community: “Accompanying the rise of high-volume hydraulic fracturing has been a suite of environmental and social concerns, including potential water and air contamination, greenhouse gas emissions, health effects, and community disruptions.” “We support the exploration of MECEs as an additional tool for landowners to exercise their rights and responsibilities,” the team concluded.¹²⁷⁸
- January 26, 2017 – Automation is reducing the size of drilling crews and will lessen the number of jobs added nationally with any upturn in oil and gas operations, according to a piece on OilPrice.com. The author described predictions, including:

¹²⁷⁶ Loomis, J., & Haefele, M. (2017). Quantifying market and non-market benefits and costs of hydraulic fracturing in the United States: A summary of the literature. *Ecological Economics*, 138, 160-167. doi: 10.1016/j.ecolecon.2017.03.036

¹²⁷⁷ Krauss, C. (2017, February 19). Texas oil fields rebound from price lull, but jobs are left behind. *New York Times*. Retrieved from https://www.nytimes.com/2017/02/19/business/energy-environment/oil-jobs-technology.html?_r=0

¹²⁷⁸ Jackson, R. B., Owley, J., & Salzman, J. (2017). Mineral estate conservation easements: A new policy instrument to address hydraulic fracturing and resource extraction. *Environmental Law Reporter*, 47(2). 10112-10120. Retrieved from <https://elr.info/news-analysis/47/10112/mineral-estate-conservation-easements-new-policy-instrument-address-hydraulic-fracturing-and-resource-ext>

Automated drilling rigs may be able in the future to reduce the number of persons in a drilling crew by almost 40 percent, from 25 workers to 15 workers, *Houston Chronicle's* Jordan Blum writes, quoting industry analysts.

Drilling company Nabors Industries expects that it may be able to reduce the size of the crew at each well site to around 5 people from 20 workers now if more automated drilling rigs are used, Bloomberg's David Wethe says.¹²⁷⁹

- December 22, 2016 – Researchers with the Energy Policy Institute at the University of Chicago measured the costs and benefits of fracking in local communities across nine U.S. shale basins. They found that, despite contributions to local economies with the arrival of fracking, residents experienced decreases in local quality of life. Spikes in crime were the most directly measurable of these effects. “Despite local governments’ efforts to improve public safety—allocating 20 percent more funding—the crime rates still marginally increased.” The study also found unequal distribution of benefits. Students, the elderly, and those who don’t own mineral rights did not benefit at all. Their analysis found an average gain of about \$1,300 to \$1,900 per household per year, but these gains were offset by a reduction in the typical household’s quality of life, which the authors computed at about \$1,000 to \$1,600 per year.¹²⁸⁰
- December 21, 2016 – Economists from the University of Anchorage and Montana State University studied the impact of regional shale energy booms on crime rates across U.S. counties from 2000 to 2013, documenting increased rates of many types of crime, including assault, rape, larceny, and auto theft. In 2013, they pegged the average monetary cost of these additional crimes at \$2 million per county. Researchers emphasized these results represented short-term costs only, as they could not predict how crimes rates and attendant costs will accrue over longer periods of time, as, for example, if criminal behavior and labor migration facilitate a slow drain of human and physical capital from the region and propagate “a long-term resource curse.” The study also found “that registered sex offenders moved in disproportionate numbers to boom towns in North Dakota,” and “that income inequality increased as the shale boom progressed.”¹²⁸¹
- May 24, 2016 – In 327 U.S. counties previously at the center of the fracking boom, overdue car loans approached their highest level in five years, and late mortgage payments also rose, according to a report by the *Financial Times* that examined data from the Federal Reserve Bank of New York. These trends stood in stark contrast to lowered overdue debt rates in the rest of the U.S. This surge in late car payments in intensely fracked areas of the United States has “exposed the damage done by the collapse in

¹²⁷⁹ Paraskova, T. (2017, January 26). Robots over roughnecks: Next drilling boom might not add many jobs. *OilPrice.com*. Retrieved from <https://oilprice.com/Energy/General/Robots-Over-Roughnecks-Next-Drilling-Boom-Might-Not-Add-Many-Jobs.html>

¹²⁸⁰ Bartik, A. W., Currie, J., Greenstone, M., & Knittel, C. R. (2016). *The local economic and welfare consequences of hydraulic fracturing*. Energy Policy Institute at the University of Chicago. Retrieved from <https://epic.uchicago.edu/research/publications/local-economic-and-welfare-consequences-hydraulic-fracturing>

¹²⁸¹ James, A., & Smith, B. (2016). There will be blood: Crime rates in shale-rich U.S. counties. *Journal of Environmental Economics and Management*, 84, 125–152. doi: 10.1016/j.jeem.2016.12.004

drilling activity and marred broadly positive trends for late debt payments by American consumers.”¹²⁸²

- May 8, 2016 – With the downturn in the fracking industry, Wisconsin’s sand mining sector, which provides silica sand for fracking operations, has also slumped and prompted significant layoffs and job losses in both 2015 and 2016, according to a report by Eau Claire’s *Leader-Telegram*. “This is what the bust part of the boom-and-bust cycle of the energy sector looks like, and it’s something west-central Wisconsin residents, who are mostly new to the industry, aren’t used to seeing.” Other companies that supply goods and services to sand mining operations in the region have also experienced a downturn.¹²⁸³
- March 8, 2016 – A DeWitt County, Texas judge estimated it will cost his county \$432 million to rebuild its roads, noting that if a road “leads to a rig site, it’s bound to be a broken road.” The judge stated that ultimately the companies would pay a large share.¹²⁸⁴
- February 22, 2016 – *Inside Energy* investigated oil-industry related wage theft claims in the West, finding “a growing number of oil workers are turning to the courts, saying they weren’t paid fairly even when times were good.” Between 2010 and 2015, wage theft suits against oil and gas companies in Colorado increased by a factor of nine, and in Texas nearly ten times. The investigation found that oil and gas companies were consistently among the top violators of wage laws—especially in failure to pay overtime. A federal investigation of the industry led to the recovery of \$40 million dollars in unpaid wages. One of the officers involved in the investigations is quoted saying, “We have found cases where workers were not even paid the minimum wage, because they’re working so many hours.... So the idea that they’re being highly compensated, in some cases, they’re not.”¹²⁸⁵
- January 13, 2016 – A fire on a fracking site in Grady County, Oklahoma that consumed 22 oil tankers required the response of six regional fire departments.¹²⁸⁶
- December 15, 2015 – The value of homes that rely on well water in Pennsylvania dropped an average of \$30,167 when fracking took place within 1.5 kilometers, according to a study by Duke University researchers published in the *American Economic Review*. For these groundwater-dependent homes, a fracking well located within one kilometer was linked to a 13.9 percent average decrease in values; homes with wells at

¹²⁸² Fleming, S. (2016, May 24). US fracking bust sparks surge in car debt. *Financial Times*. Retrieved from <http://www.ft.com/cms/s/0/a4cb1270-21c2-11e6-aa98-dbe1e01fab0c.html>

¹²⁸³ Lindquist, E. (2016, May 8). Silent sandbox: Once booming frac sand industry continues major downturn. *Leader-Telegram*. Retrieved from <http://www.leadertelegram.com/News/Front-Page/2016/05/08/Silentsandbox.html>

¹²⁸⁴ Callahan, C. (2016, March 8). Fracking fall-off leaves South Texas roads a mess. *KSAT.com*. Retrieved from <http://www.ksat.com/web/ksat/news/fracking-fall-off-leaves-south-texas-roads-a-mess>

¹²⁸⁵ Boyce, D. (2016, February 22). Wage theft claims surge as oil prices fall. *Inside Energy*. Retrieved from <http://insideenergy.org/2016/02/22/wage-theft-claims-surge-as-oil-prices-fall/>

¹²⁸⁶ KFOR-TV, Querry, K., & Fultonberg, L. (2016, January 13). Firefighters extinguish damaging Grady Co. fracking fire. *KFOR.com*. Retrieved from <http://kfor.com/2016/01/13/all-lanes-of-traffic-shut-down-due-to-large-oil-rig-fire/>

least two kilometers away maintained their value. The study was based on home sales between 1995 and 2012 in 36 counties. Researchers stated that their figures may not fully reflect the total costs associated with groundwater contamination risk, as, for example, when homeowners purchase expensive home water filtration systems. Though their study does not incorporate data on actual contamination, concerns about contamination can significantly affect property values. Researchers found “strong evidence of localized costs borne particularly by groundwater-dependent homes.”¹²⁸⁷

- December 8, 2015 – Even as housing prices in shale gas-areas of Pennsylvania have dropped along with fracking activity, many seniors and people living on low incomes are still being priced out of the market, *StateImpact* reported. Pennsylvania still lacks a quarter million affordable rental homes for people in poverty despite a 2012 law requiring gas companies to pay well fees intended to offset the costs of affordable housing programs in communities where drilling is occurring.¹²⁸⁸
- December 2, 2015 – “The local economy is feeling the pinch” of the downturn of activity in Pennsylvania’s gas fields, according to a Reuters report. The late 2015 slump marked a turning point in Marcellus Shale fracking. Regional economic effects reported include empty hotel rooms and foreclosure notices in Lycoming County at their highest since data were first collected.¹²⁸⁹
- October 7, 2015 – Vehicular collisions and Texas fracking activity are closely linked, according to a report by the Texas A&M University Transportation Institute. Researchers analyzed the number of crashes and injuries across Texas during the period from 2006 to 2009, when drilling and fracking operations were intensive over the Barnett Shale, as well as from 2010 to 2013, when activity increased in the Permian Basin in West Texas and the Eagle Ford Shale in South Texas, and decreased in the Barnett. Collisions increased where shale gas activity increased and decreased where it slowed down.¹²⁹⁰ Quoted in the *Texas Tribune*, report co-author Cesar Quiroga said, “The two trends correlated so well, and they were perfectly aligned . . . We could use this as a predictive model.”¹²⁹¹ Further, the increase was greater in South Texas, the region that relies most heavily on horizontal, hydraulic fracking requiring millions of gallons of water and sand to be trucked in, compared to West Texas which does use fracking but also more simple, vertical wells. The comprehensive cost of these collisions was estimated to be about \$2

¹²⁸⁷ Muehlenbachs, L., Spiller, E., & Timmins, C. (2015). The housing market impacts of shale gas development. *American Economic Review*, 105(12), 3633–3659. doi: 10.1257/aer.20140079

¹²⁸⁸ Cusick, M. (2015, December 8). Despite drilling slowdown, rents still high in fracking boomtowns. *StateImpact*. Retrieved from <https://stateimpact.npr.org/pennsylvania/2015/12/08/despite-drilling-slowdown-rents-still-high-in-fracking-boomtowns/>

¹²⁸⁹ McAllister, E. (2015, December 2). America's biggest gas field finally succumbs to downturn. *Reuters.com*. Retrieved from <http://www.reuters.com/article/us-usa-marcellus-decline-insight-idUSKBN0TL0CY20151202#W0DRBI8eM4MKscSV.97>

¹²⁹⁰ Quiroga, C. & Tsapakis, J. (2015). *Oil and gas energy developments and changes in crash trends in Texas*. Texas A&M Transportation Institute, PRC 15-35 F. Retrieved from <http://d2dtl5nnlprfr0r.cloudfront.net/tti.tamu.edu/documents/PRC-15-35-F.pdf>

¹²⁹¹ Malewitz, J. (2015, October 7). Report: Energy boom-related traffic crashes cost billions. *Texas Tribune*. Retrieved from <https://www.texastribune.org/2015/10/07/report-shows-huge-toll-energy-boom-traffic-crashes/>

billion more from 2010 to 2013—in both the Eagle Ford and Permian Basin—compared to the previous period.

- September 30, 2015 – The North Dakota Bureau of Criminal Investigation was set to hire nine new agents, reported the *Billings Gazette*, “...allowing for more attention to cases of human trafficking and organized crime in western North Dakota ... as increased oil production resulted in growing populations.”¹²⁹²
- September 29, 2015 – “New residential units sit empty as gas production falls,” *HousingWire Magazine* wrote, following up on their earlier reporting describing the link between the drilling boom and the real estate boom in the Bakken shale region of North Dakota. Economic data indicate that Bakken drilling is not lasting long enough to sustain the building explosion.¹²⁹³
- September 9, 2015 – Most local governments in Western North Dakota and Eastern Montana’s Bakken region have experienced net negative fiscal effects, according to a Duke University analysis published by the National Bureau of Economic Research. These trends were also seen in municipalities in rural Colorado and Wyoming, which also struggled to manage fiscal impacts during recent oil and gas booms, but in these two states the fiscal impact eased as drilling activity slowed.¹²⁹⁴ Referencing the report, *McClatchyDC* wrote, “North Dakota cities and counties have been slammed.” Municipal challenges have included providing water and sewer infrastructure, substantial damage to roads, soaring housing prices, and strained emergency services.¹²⁹⁵
- August 27, 2015 – Fracking in or near public parks could cause tourists to stay away and lead to a decline in park use, according to a report published by a team of tourism, recreation, and sport management researchers from the University of Florida, North Carolina State University, and Florida State University. Using data collected from 225 self-identified park users from Pennsylvania, Ohio, West Virginia, Kentucky, and Tennessee, researchers reported that only one-third of participants were willing to participate in recreational activities near fracking operations, compared to 38 percent unwilling, and 29 percent neutral. Forty-six percent of respondents supported a ban on fracking on public lands, while 20 percent agreed with promoting fracking on public lands.¹²⁹⁶

¹²⁹² McCleary, M. (2016, September 30). North Dakota to hire 9 more criminal investigation agents. *Billings Gazette*. Retrieved from http://billingsgazette.com/news/state-and-regional/montana/north-dakota-to-hire-more-criminal-investigation-agents/article_a4192344-c9b0-51cc-9693-5a4335f5be05.html

¹²⁹³ Lane, N. (2015, September 29). Is fracking about to bust housing in North Dakota? *HousingWire Magazine*. Retrieved from <http://www.housingwire.com/articles/35196-is-fracking-about-to-bust-housing-in-north-dakota>

¹²⁹⁴ Newell, R. G., & Raimi, D. (2015). *Shale public finance: Local government revenues and costs associated with oil and gas development*. The National Bureau of Economic Research, Working Paper No. 21542. doi: 10.3386/w21542

¹²⁹⁵ Cockerham, S. (2015, September 9). Oil boom a loser for North Dakota cities, counties, study finds. *McClatchyDC*. Retrieved from <http://www.mcclatchydc.com/news/nation-world/national/economy/article34552824.html>

¹²⁹⁶ Kellison, T. B., Bunds, K. S., Casper, J. M., & Newman, J. I. (2015). Fracking & parkland: Understanding the impact of hydraulic fracturing on public park usage. Retrieved from http://plaza.ufl.edu/tkellison/_/Fracking.html

- July 1, 2015 – Britain’s Department for Environment, Food & Rural Affairs released previously redacted sections of a report on the impacts of drilling and fracking. The report found that housing prices near fracking wells would likely fall up to seven percent for houses within a mile of wells. Furthermore, properties within one to five miles of fracking sites could incur additional insurance costs. The report warned of environmental damages, including from leakage of fracking waste fluids, and found that public health could be affected indirectly through consumption of contaminated wildlife, livestock, or agricultural products. The report also found potential for some benefits, such as job growth.¹²⁹⁷
- July 2015 – A working paper by researchers with the National Bureau of Economic Research found that fracking resulted in an increase in male teen high school dropout rates. “Our estimates imply that, absent fracking, the male-female gap in high school dropout rates among 17- 18-year olds would have narrowed by about 11 percent between 2000 and 2013 instead of remaining unchanged.” The authors explained that by increasing the demand for low-skilled labor, fracking could slow growth in educational attainment. They noted that the relative wage boost from fracking may be only temporary. Indeed, by the end of the sample period, the benefits had started to wane as the labor demand from fracking appeared to no longer favor dropouts. Thus, the fracking boom may be inhibiting educational achievement among young men who “would already be near the bottom of the skill distribution, with possible implications for future productivity and the social safety net.”^{1298, 1299}
- March 20, 2015 – The U.S. Attorney for Western New York linked a rise in production of methamphetamine to use among workers in the fracking fields of northern and western Pennsylvania. Surging demand for the drug, which allows users to stay awake for 48 to 72 hours, may be related to the extremely long working hours that employees in the gas industry must endure.¹³⁰⁰
- January 4, 2015 – A documentary by Forum News Service, “Trafficked Report,” revealed that sex trafficking, including of children, in the Bakken oil fields of North Dakota was a significant problem.¹³⁰¹ The dynamics of the oil boom, with an influx of out-of-state and

¹²⁹⁷ Vaughan, A. & Mason, R. (2015, July 1). Fracking could hurt house prices, health and environment, official report says. *Guardian*. Retrieved from <http://www.theguardian.com/environment/2015/jul/01/fracking-could-hurt-house-prices-health-and-environment-official-report-says>

¹²⁹⁸ Cascio, F. U., & Narayan, A. (2015, July). *Who needs a fracking education? The educational response to low-skill biased technological change*. National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w21359>

¹²⁹⁹ Chandra, S. (2015, July 14). Fracking jobs encouraged American teens to become high school dropouts. *Bloomberg Business*. Retrieved from: <http://www.bloomberg.com/news/articles/2015-07-14/fracking-jobs-encouraged-american-teens-to-become-high-school-dropouts>

¹³⁰⁰ Newberg, R. (2015, March 20). Meth use tied to fracking workers in Pennsylvania. *WIVB 4*. Retrieved from <http://wivb.com/2015/03/20/meth-use-tied-to-fracking-workers-in-pennsylvania/>

¹³⁰¹ Dalrymple, A., & Lynn, K. (2015, January 4). Trafficked Report: Sex for sale in the Bakken. *Forum News Service*. Retrieved from <http://www.traffickedreport.com/?p=15>

primarily male workers far from their families, created an increase in demand for prostitution.¹³⁰²

- December 28, 2014 – The *New York Times* profiled the impacts of oil drilling and fracking on the Fort Berthold Indian Reservation in North Dakota, finding corruption, crime, and negative environmental impacts. Aside from a significant rise in jobs, which often go to transient workers, many residents “see deterioration rather than improvement in their standard of living. They endure intense truck traffic, degraded roads, increased crime, strained services and the pollution from spills, flares and illegal dumping.” According to the *Times*' calculation, the reservation had seen 850 oil-related environmental incidents from 2007 through mid-October 2014, which generally went unpunished.¹³⁰³
- December 26, 2014 – Examining Pennsylvania Department of Transportation data, Ohio's *Star Beacon* newspaper found that fracking poses a safety threat on rural roads. The paper found that Pennsylvania's five busiest drilling counties recorded 123 more heavy truck crashes in 2011 than before the gas boom began—a 107 percent increase. The paper noted the burden drilling and fracking placed on local communities and governments, including the strain on local emergency responders.¹³⁰⁴
- December 17, 2014 – Heavy drilling and fracking (defined as 400 or more wells drilled within a county over 5-8 years) was positively correlated with increased crime, sexually transmitted diseases, and traffic fatalities, according to a report by the Multi-State Shale Research Collaborative.¹³⁰⁵ The report looked at the impacts in Pennsylvania, Ohio, and West Virginia, primarily finding statistically significant impacts in six heavily drilled counties in Pennsylvania. In those six counties, violent crime increased 17.7 percent—corresponding to about 130 more violent crimes in those counties in 2012—compared to a decrease in violent crime rates in both urban and rural non-drilling communities. Property crime increased 10.8 percent in those six counties, drug abuse rates rose 48 percent, and drunk-driving offenses rose 65 percent compared to 42 percent in rural areas with no drilling. The report found a statistically significant increase of 24 percent to 27 percent in rates of sexually transmitted diseases across drilling counties in all three states. Motor vehicle fatalities increased 27.8 percent in Pennsylvania's six high-drilling

¹³⁰² Gaines, J. (2015, March 9). The oil boom in North Dakota now has a serious sex-trafficking problem. *Business Insider*. Retrieved from <http://www.businessinsider.com/north-dakota-sex-trafficking-prostitution-oil-boom-police-raid-2015-3>

¹³⁰³ Sontag, D., & McDonald B. (2014, December 28). In North Dakota, a tale of oil, corruption and death. *The New York Times*. Retrieved from <http://www.nytimes.com/2014/12/29/us/in-north-dakota-where-oil-corruption-and-bodies-surface.html>

¹³⁰⁴ Finnerty, J. (2014, December 26). Fracking's biggest safety threat is on rural roads. *Star Beacon*. Retrieved from http://www.starbeacon.com/news/fracking-s-biggest-safety-threat-is-on-rural-roads/article_bc48687a-8caf-11e4-b4d9-6382c924a6f9.html

¹³⁰⁵ Price, M., Basurto, L., Herzenberg, S., Polson, D., Ward, S., & Wazeter, E. (2014, December). *The shale tipping point: The relationship of drilling to crime, traffic fatalities, STDs, and rents in Pennsylvania, West Virginia, and Ohio*. The Multi-State Shale Research Collaborative. Retrieved from <http://www.multistateshale.org/shale-tipping-point>

counties. The report found a modest increase in jobs, but noted that an influx of out-of-state workers at least partially explained the increases in traffic and crime.¹³⁰⁶

- December 15, 2014 – A report written in French by Quebec’s Advisory Office of Environmental Hearings concluded that the environmental costs of fracking in the St. Lawrence Lowlands would outweigh the potential economic benefits. In a press release, the Advisory Office of Environmental Hearings concluded that fracking “would not be advantageous for Quebec because of the magnitude of the potential costs and externalities, compared to royalties that would be collected by Quebec. Other concerns also remain, including plans of social acceptability, legislation, and a lack of knowledge, particularly with respect to water resources.”¹³⁰⁷
- October 30, 2014 – The *New York Times* profiled the profound impact heavy drilling has had on Glasscock County, Texas, including its farming community. Farmers described increases in trash, traffic accidents, clashes around farmers selling groundwater to drillers, and economic detriment. In many cases, acres of farmland around a drill site “will probably never be suitable for fertile farming again,” and farmers are “at the mercy” of what drillers want to pay for damages. The county itself receives revenue, but most of that additional money “is being used to repair roads damaged by oil field truck activity. Overall, the gains from drilling are not viewed as worth the drawbacks in a county long dominated by cotton farming.”¹³⁰⁸
- September 28, 2014 – A *Washington Post* investigation reported on heroin and methamphetamine addiction—and associated violent crime—among Native American communities located within the Bakken Shale oil fields. According to a chief judge for the Mandan, Hidatsa, and Arikara Nation, “The drug problem that the oil boom has brought is destroying our reservation.”¹³⁰⁹
- September 11, 2014 – An editor for the *Washington Post* examined jobs and manufacturing data in Youngstown, Ohio, to demonstrate that drilling and fracking are not resulting in a revitalization of the Rust Belt as some proponents and a prominent *New York Times* story asserted. The *Post* determined that in Youngstown, Ohio, the manufacturing sector has lost jobs by the tens of thousands in the last twenty years and the oil and gas industry has created approximately two thousand jobs since the recession

¹³⁰⁶ McKelvey, W. (2014, December 17). Fracking brought spikes in crime, road deaths and STDs to Pa.: Report. *Patriot News*. Retrieved from

http://www.pennlive.com/midstate/index.ssf/2014/12/fracking_brought_spikes_in_vio.html

¹³⁰⁷ McCarthy, S. (2014, December 15). Fracking dealt another setback by Quebec report. *Globe and Mail*.

Retrieved from <http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/bape-says-shale-gas-production-not-advantageous-for-quebec/article22096203/>

¹³⁰⁸ Batheja, A. (2014, October 30). A county resents oil drilling, despite the money it brings in. *The New York Times*. Retrieved from http://www.nytimes.com/2014/10/31/us/a-county-resents-oil-drilling-despite-the-money-it-brings-in.html?ref=earth&_r=1

¹³⁰⁹ Horwitz, S. (2014, September 28). Dark side of the boom: North Dakota’s oil rush brings cash and promise to reservation along with drug-fueled crime. *The Washington Post*. Retrieved from <http://www.washingtonpost.com/sf/national/2014/09/28/dark-side-of-the-boom/>

ended. Six years prior, there were 13,000 more jobs in the Youngstown metro area than there were in summer 2014.¹³¹⁰

- September 9, 2014 – A study by researchers at Colorado State University examined the political economy of harm and crime associated with the oil and gas industry in rural Colorado, particularly around the rise of fracking. The researchers looked at complaints that citizens filed with the state, and also conducted interviews and examined other data. They found 2,444 complaints between November 2001 and June 2013 covering a range of issues including water, environment, noise, air quality, land use, and more. They characterized citizen complaints as “extensive and complex” and concluded that, regardless of the nature of the harm, most were “persistent and omnipresent” rather than short-lived, isolated problems.¹³¹¹
- September 6, 2014 – In Williams County, North Dakota, in the Bakken Shale, increases in crime have corresponded with the flow of oil. The infusion of cash has attracted career criminals who deal in drugs, violence, and human sex trafficking. The *Williston Herald* portrayed, in a “reader’s discretion advised” article, the rapid rise of “index crimes”—“violent crimes that result in the immediate loss of an individual’s property, health or safety, such as murder, larceny and rape.” With fewer than 100 law enforcement personnel, crime in Williams County “has risen in kind with the county’s population, but funding, staffing and support training for law enforcement has not.”¹³¹²
- September 2014 – Reporting on the social, environmental, health and safety, and economic burdens endured by localities from fracking, the magazine *Governing: The States and Localities* found that “fracking, in many cases, negatively impacts property values, which in turn depresses property tax revenue. For property owners who own the rights to the oil and gas on their land, the effects of drilling can be offset by royalty payments. But localities have no revenue offset if properties lose value.”¹³¹³
- August 26, 2014 – The U.S. Justice Department Office on Violence Against Women awarded three million dollars to five rural and tribal communities to prosecute crimes of violence against women and provide services to victims of sexual assault, domestic violence, and stalking in the Bakken Region of North Dakota and Montana.¹³¹⁴ Rationale documented by tribal leaders, law enforcement, and the FBI included, “rapid

¹³¹⁰ Tankersley, J. (2014, September 11). Fracking hasn’t restored the Rust Belt’s lost jobs. *The Washington Post*. Retrieved from <http://www.washingtonpost.com/news/storyline/wp/2014/09/11/fracking-hasnt-restored-the-rust-belts-lost-jobs/>

¹³¹¹ Opsal, T., & Shelley T. O. (2014). Energy crime, harm, and problematic state response in Colorado: A case of the fox guarding the hen house? *Critical Criminology*, 22 (4), 561-577.

¹³¹² Bell, T. (2014, September 6). Modernized slavery. *Williston Herald*. Retrieved from http://www.willistonherald.com/news/modernized-slavery/article_84e257d8-3615-11e4-a4f8-001a4bcf887a.html

¹³¹³ Shafroth, F. (2014, September). Fracking’s financial losers: local governments. *Governing: The States and Localities*. Retrieved from <http://www.governing.com/columns/public-money/gov-frackings-financial-losers.html>

¹³¹⁴ U.S. Department of Justice. (2014, August 26). Associate Attorney General West announces \$3 million in grants to address violence against women in rural and tribal communities in the Bakken Region. *Justice News*. Retrieved from <http://www.justice.gov/opa/pr/associate-attorney-general-west-announces-3-million-grants-address-violence-against-women>

development of trailer parks and modular housing developments often referred to as ‘man camps;’ abrupt increase in cost of living, especially housing; rapid influx of people, including transients, in a previously rural and stable community; constant fear and perception of danger; and a lost way of life. Local and tribal officials and service providers reported that these changes have been accompanied by a rise in crime, including domestic and sexual violence.”¹³¹⁵

- May 27, 2014 – A *Bloomberg News* analysis of 61 shale-drilling companies found that the economic picture of shale oil and gas is unstable. Shale debt has almost doubled over the last four years while revenue has gained just 5.6 percent. For the 61 companies in their analysis, *Bloomberg News* reported: “In a measure of the shale industry’s financial burden, debt hit \$163.6 billion in the first quarter.” Further, *Bloomberg* noted that drillers are caught in a bind because they must keep borrowing to pay for exploration needed to “offset steep production declines typical of shale wells.... For companies that can’t afford to keep drilling, less oil coming out means less money coming in, accelerating the financial tailspin.”¹³¹⁶
- May 5, 2014 – An Associated Press analysis found that traffic fatalities have spiked in heavily drilled areas of six states, whereas most other roads in the nation have become safer even as population has grown. In North Dakota drilling counties, for instance, traffic fatalities have increased 350 percent.¹³¹⁷
- April 16, 2014 – A comprehensive article in the *Albany Law Review* concluded that the risks inherent with fracking are not covered by homeowner’s insurance, not fully insured by the oil and gas industry, and threaten mortgages and property value.¹³¹⁸
- April 2014 – A report by the Multi-State Shale Research Collaborative, “Assessing the Impacts of Shale Drilling: Four Community Case Studies,” documented economic, community, government, and human services impact of fracking on four rural communities. The study found that fracking led to a rapid influx of out-of-state workers and, although some new jobs were created, these were accompanied by additional costs for police, emergency services, road damage, and social services. In addition, increased rents, and a shortage of affordable housing accompanied the fracking boom.

¹³¹⁵ U.S. Department of Justice. (2014). OVW Fiscal Year 2014 Violence Against Women Bakken Region Initiative: Enhanced response to victims application guidelines. Retrieved from <http://www.justice.gov/sites/default/files/ovw/legacy/2014/04/25/fy2014-initiative-for-the-bakken-region-enhanced-services-for-victims.pdf>

¹³¹⁶ Loder, A. (2014, May 27). Shakeout threatens shale patch as frackers go for broke. *Bloomberg*. Retrieved from <http://www.bloomberg.com/news/2014-05-26/shakeout-threatens-shale-patch-as-frackers-go-for-broke.html>

¹³¹⁷ Begos, K., & Fahey, J. (2014, May 5). AP impact: Deadly side effect to fracking boom. *Associated Press*. Retrieved from <http://bigstory.ap.org/article/ap-impact-deadly-side-effect-fracking-boom-0>

¹³¹⁸ Radow, E. L. (2014). At the intersection of Wall Street and Main: Impacts of hydraulic fracturing on residential property interests, risk allocation, and implications for the secondary mortgage market. *Albany Law Review*, 77(2), 673-704.

Unemployment rose after one county's boom ended; in another county, unemployment stayed above the state average throughout.¹³¹⁹

- March 27, 2014 – A report by researchers at Rand Corporation determined that each shale gas well in Pennsylvania causes between \$5,400 and \$10,000 in damage to state roads. The report did not calculate damage to local roads, which is also significant. Researchers used estimates of truck trips that are significantly below the number estimated for New York by the New York State Department of Environmental Conservation (NYS DEC).^{1320, 1321}
- February 15, 2014 – The *Los Angeles Times* detailed steep increases in crime that have accompanied fracking in parts of the Eagle Ford Shale in Texas, including sexual assaults and thefts.¹³²²
- February 14, 2014 – Pennsylvania landowners with fracking leases rallied in Bradford County against gas companies for precipitous drops in royalty payments.¹³²³
- December 20, 2013 – The National Association of Realtors' *RealtorMag* summarized a growing body of research, including a University of Denver survey and a *Reuters* analysis, that shows threats property values from fracking and gas drilling.¹³²⁴
- December 12, 2013 – A *Reuters* analysis discussed how oil and gas drilling has made making some properties “unsellable” and researched the link between drilling and property value declines. The analysis highlighted a Duke University working paper that finds shale gas drilling near homes can decrease property values by an average of 16.7 percent if the house depends on well water.¹³²⁵

¹³¹⁹ Multi-State Shale Research Collaborative. (2014, April 10). *Assessing the impacts of shale drilling county case studies* (Rep.). Retrieved from <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbntdWx0aXN0YXRlc2hhbGV8Z3g6NGU4MjIyNWU5ZjFhZjM4Yg>

¹³²⁰ Cusick, M. (2014, March 27). Report finds each Marcellus gas well costs thousands in road damage. *StateImpact*. Retrieved from <http://stateimpact.npr.org/pennsylvania/2014/03/27/report-finds-each-marcellus-gas-well-costs-thousands-in-road-damage/>

¹³²¹ Abramzon, S., Samaras, C., Curtright, A., Litovitz, A., & Burger, N. (2014). Estimating the consumptive use costs of shale natural gas extraction on Pennsylvania roadways. *Journal of Infrastructure Systems*. 20(3). doi: 10.1061/(ASCE)IS.1943-555X.0000203, 06014001

¹³²² Hennessy-Fiske, M. (2014, February 15). Fracking brings oil boom to south Texas town, for a price. *Los Angeles Times*. Retrieved from <http://www.latimes.com/nation/la-na-texas-oil-boom-20140216%2C0%2C7621618.story#ixzz30Iw9FXoz>

¹³²³ Marshall, J. (2014, February 14). Landowners rally for royalties from gas companies. Retrieved from <http://www.wbng.com/news/local/Landowners-rally-for-245596511.html>

¹³²⁴ Daily Real Estate News. (2013, December 20). ‘Fracking’ sparks concern over nearby home values. *National Association of Realtors*. Retrieved, from <http://realtormag.realtor.org/daily-news/2013/12/20/fracking-sparks-concern-over-nearby-home-values#.UrmdIIPmVu8.twitter>

¹³²⁵ Conlin, M. (2013, December 12). Gas drilling is killing property values for some Americans. *Reuters*. Retrieved from <http://www.businessinsider.com/drilling-can-make-some-properties-unsellable-2013-12#ixzz2nMgFv8FU>

- December 10, 2013 – Pennsylvania’s *Daily Review* reported that more gas companies are shifting costs to leaseholders and that royalty payments are drastically shrinking. The story quoted Bradford County Commissioner Doug McLinko saying that some gas companies “are robbing our landowners” and that the problem of royalty payments being significantly reduced by deductions for post-production costs “is widespread throughout our county.”¹³²⁶
- November 30, 2013 – The *New York Times* reported striking increases in crime in Montana and North Dakota where the oil and gas boom is prevalent, as well as challenges faced by local residents from the influx of out-of-area workers and the accompanying costs. The *New York Times* reported, “‘It just feels like the modern-day Wild West,’ said Sgt. Kylan Klauzer, an investigator in Dickinson, in western North Dakota. The Dickinson police handled 41 violent crimes last year, up from seven only five years ago.”¹³²⁷
- November 21, 2013 – The Multi-State Shale Research Collaborative released a six-state collaborative report demonstrating that the oil and gas industry has greatly exaggerated the number of jobs created by drilling and fracking in shale formations. The report found that far from the industry’s claims of 31 direct jobs created per well, only four jobs are created for each well. It also demonstrated that almost all of the hundreds of thousands of ‘ancillary’ jobs that the drilling industry claims are related to shale drilling existed before such drilling occurred. As Frank Mauro, Executive Director Emeritus of the Fiscal Policy Institute put it, “Industry supporters have exaggerated the jobs impact in order to minimize or avoid altogether taxation, regulation, and even careful examination of shale drilling.”¹³²⁸
- November 12, 2013 – *The American Banker* reported that the “Fracking Boom Gives Banks Mortgage Headaches,” with a number of financial institutions refusing to make mortgages on land where oil and gas rights have been sold to an energy company. The article stated that the uniform New York state mortgage agreement used by Fannie Mae and Freddie Mac requires that homeowners not permit any hazardous materials to be used or located on their property. Fracking is therefore a problem because it is just such a hazardous activity with use of hazardous materials.¹³²⁹
- September 25, 2013 – A report found that fracking is linked to significant road damage, increased truck traffic, crime, and strain on municipal and social services. Data from the

¹³²⁶ Loewenstein, J. (2013, December 10). Shrinking royalty checks. *TheDailyReview.com*. Retrieved from <http://thedailyreview.com/news/shrinking-royalty-checks-1.1598195>

¹³²⁷ Healy, J. (2013, November 30). As oil floods plains towns, crime pours in. *The New York Times*. Retrieved from http://www.nytimes.com/2013/12/01/us/as-oil-floods-plains-towns-crime-pours-in.html?smid=tw-share&_r=0

¹³²⁸ Campbell, J. (2013, November 21). Report: Industry-backed studies exaggerate fracking job estimates. *Politics on the Hudson*. Retrieved from <http://polhudson.lohudblogs.com/2013/11/21/report-industry-backed-studies-exaggerate-fracking-job-estimates/>

¹³²⁹ Peters, A. (2013, November 12). Fracking boom gives banks mortgage headaches. *American Banker*. Retrieved from http://www.americanbanker.com/issues/178_218/fracking-boom-gives-banks-mortgage-headaches-1063561-1.html

past ten years on the social costs of fracking including truck accidents, arrests, and higher rates of sexually transmitted diseases are all causes for alarm.¹³³⁰

- September 12, 2013 – In a feature titled “Pa. fracking boom goes bust,” *The Philadelphia Inquirer* presented data from the independent Keystone Research Center detailing “flat at best” job growth and declines in production and royalty payments.¹³³¹
- August 22, 2013 – A University of Denver study in the *Journal of Real Estate Literature* found a 5-15 percent reduction in bid value for homes near gas drilling sites.¹³³²
- August 21, 2013 – *The Atlantic Cities* and *MSN Money* reported that fracking operations may be damaging property values and may impair mortgages or the ability to obtain property insurance.^{1333, 1334}
- August 13, 2013 – A *ProPublica* investigative analysis found that Chesapeake Energy is coping with its financial difficulties in Pennsylvania by shifting costs to landowners who are now receiving drastically reduced royalty payments.¹³³⁵
- August 4, 2013 – In a survey of West Virginia landowners with shale wells on their property, more than half reported problems including damage to the land, decline in property values, truck traffic, and lack of compensation by the oil and gas company.¹³³⁶
- May 24, 2013 – Pennsylvania Department of Transportation Secretary Allen D. Bihler and Pennsylvania State Police Commissioner Frank Pawlowski said that gas drilling has led to increases in truck traffic, traffic violations, crime, demand for social services, and the number of miles of roads that are in need of repairs. They noted that drilling companies that committed to repairing roads have not kept pace with the roads they

¹³³⁰ Gibbons, B. S. (2013, September 25). Environmental groups calculate social cost of natural gas boom. *The Times-Tribune*. Retrieved from <http://thetimes-tribune.com/news/environmental-groups-calculate-social-cost-of-natural-gas-boom-1.1558186>

¹³³¹ Bunch, W. (2013, September 12). Pa. fracking boom goes bust. *Philly.com*. Retrieved from http://articles.philly.com/2013-09-12/news/41974274_1_fracking-boom-penn-state-marcellus-center-marcellus-shale

¹³³² Downing, B. (2013, April 22). Survey says home values hurt by fracking at drill sites. *Ohio.com*. Retrieved from <http://www.ohio.com/blogs/drilling/ohio-utica-shale-1.291290/survey-says-home-values-hurt-by-fracking-at-drill-sites-1.422838>

¹³³³ Drouin, R. (2013, August 19). How the fracking boom could lead to a housing bust. *Citylab*. Retrieved from <http://www.theatlanticcities.com/politics/2013/08/how-fracking-boom-could-lead-housing-bust/6588/>

¹³³⁴ Notte, J. (2013, August 21). Fracking leaves property values tapped out. *MSN Money*. Retrieved from <http://money.msn.com/now/post--fracking-leaves-property-values-tapped-out>

¹³³⁵ Lustgarten, A. (2013, August 13). Unfair share: How oil and gas drillers avoid paying royalties. *ProPublica*. Retrieved from <http://www.propublica.org/article/unfair-share-how-oil-and-gas-drillers-avoid-paying-royalties>

¹³³⁶ Collins, A. R., & Nkansah, K. (2013, August 4). *Divided rights, expanded conflict: The impact of split estates in natural gas production* [Scholarly project]. Retrieved from http://ageconsearch.umn.edu/bitstream/150128/2/Collins_Nkaksah_Split%20estate.pdf

damage. Commissioner Pawlowski reported that 56 percent of 194 trucks checked were over the legal weight limit and 50 percent were also cited for safety violations.¹³³⁷

- May 4, 2013 – Pennsylvania’s *Beaver County Times* asked, “What boom?” in pointing to Keystone Research Center data showing that the number of jobs numbers created by shale gas extraction do not add up to what the gas industry claims, noting that unemployment has increased and the state actually fell to 49th in the nation for job creation.¹³³⁸
- April 2, 2013 – The *New York Times* reported that manufacturing jobs resulting from an abundance of shale gas have not appeared. “The promised job gains, other than in the petrochemical industry, have been slow to materialize,” The *New York Times* reported. The article suggested that increased automation has made it unlikely that manufacturers will add many jobs.¹³³⁹
- March 19, 2013 – The *Wall Street Journal* reported that the shale gas boom has not had a big impact on U.S. manufacturing because lower energy prices are only one factor in a company’s decision on where to locate factories, and not always the most important factor. “Cheap energy flowing from the U.S. shale-gas boom is often touted as a ‘game changer’ for manufacturing,” the *Journal* reported. “Despite the benefits of lower energy costs, however, the game hasn’t changed for most American manufacturers.”¹³⁴⁰
- February 2013 – A peer-reviewed analysis of industry-funded and independent studies on the economics of fracking found that it is unlikely that fracking will lead to long-term economic prosperity for communities. The analysis noted that shale gas development brings a number of negative externalities including the potential for water, air, and land contamination; negative impacts on public health; wear and tear on roads and other infrastructure; and costs to communities due to increased demand for services such as police, fire departments, emergency responders, and hospitals.¹³⁴¹

¹³³⁷ PR Newswire. (2014, May 24). Increased gas drilling activities bringing new challenges to local governments in Pennsylvania. *PR Newswire*. Retrieved from <http://www.prnewswire.com/news-releases/increased-gas-drilling-activities-bringing-new-challenges-to-local-governments-in-pennsylvania-94774764.html>

¹³³⁸ Morgan, R. (2013, May 4). Beaver County Times: What boom? Industry pundits claim thousands of jobs will be created, but numbers don't quite add up. *Keystone Research Center*. Retrieved from <http://keystoneresearch.org/media-center/media-coverage/beaver-county-times-what-boom-industry-pundits-claim-thousands-jobs-will>

¹³³⁹ Schwartz, N. D. (2013, April 01). Rumors of a cheap-energy jobs boom remain just that. *The New York Times*. Retrieved from http://www.nytimes.com/2013/04/02/business/economy/rumors-of-a-cheap-energy-jobs-boom-remain-just-that.html?_r=0

¹³⁴⁰ Hagerty, J. R. (2013, March 19). Shale-gas boom alone won't propel U.S. industry. *The Wall Street Journal*. Retrieved from <http://online.wsj.com/news/articles/SB10001424127887324392804578362781776519720>

¹³⁴¹ Barth, J. M. (2013). The economic impact of shale gas development on state and local economies: Benefits, costs, and uncertainties. *New Solutions: A Journal of Environmental and Occupational Health Policy*, 23(1), 85-101. doi: 10.2190/NS.23.1.f

- November 16, 2012 – A Duke University study showed a drop in home values near fracking for properties that rely on groundwater.¹³⁴²
- September 27, 2012 – The *New York Times* reported that the prospect of fracking has hindered home sales in the Catskills and raised concerns about drops in property values, according to real estate agents and would-be buyers.¹³⁴³
- August 17, 2012 – A study by the state agencies, the Montana All Threat Intelligence Center and the North Dakota State and Local Intelligence Center, found that crime rose by 32 percent since 2005 in communities at the center of the oil and gas boom.¹³⁴⁴
- October 30, 2011 – A comprehensive article in the *New York State Bar Association Journal* concluded that the risks inherent with fracking threaten mortgages.¹³⁴⁵
- October 26, 2011 – The Associated Press reported that areas with significant fracking activity, including Pennsylvania, Wyoming North Dakota and Texas, are “seeing a sharp increase in drunken driving, bar fights and other hell-raising.”¹³⁴⁶
- October 19, 2011 – A *New York Times* investigation found that fracking can create conflicts with mortgages, and that “bankers are concerned because many leases allow drillers to operate in ways that violate rules in landowners’ mortgages,” and further that “[f]earful of just such a possibility, some banks have become reluctant to grant mortgages on properties leased for gas drilling. At least eight local or national banks do not typically issue mortgages on such properties, lenders say.”¹³⁴⁷
- September 7, 2011 – The NYS DEC estimated that 77 percent of the workforce on initial shale gas drilling projects would consist of transient workers from out of state. Not until the thirtieth year of shale gas development would 90 percent of the workforce be comprised of New York residents.¹³⁴⁸

¹³⁴² Muoio, D. (2012, November 16). Duke researchers show dip in home value caused by nearby fracking. *The Chronicle*. Retrieved from <http://www.dukechronicle.com/articles/2012/11/16/duke-researchers-show-dip-home-value-caused-nearby-fracking>

¹³⁴³ Navarro, M. (2012, September 27). Gas drilling jitters unsettle Catskills sales. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/09/30/realestate/fracking-fears-hurt-second-home-sales-in-catskills.html?pagewanted=1>

¹³⁴⁴ Montana All Threat Intelligence Center, & North Dakota State and Local Intelligence Center. (2012, August 17). *Impact of population growth on law enforcement in the Williston Basin region* (Rep.). Retrieved from <http://www.ag.nd.gov/reports/JOINTPRODUCTFINAL.pdf>

¹³⁴⁵ Radow, E. N. (2011). Homeowners and gas drilling leases: Boon or bust? *New York State Bar Association Journal*, 83(9). Retrieved from http://www.s-oacc.org/resources/NYSBA_Journal_nov-dec2011_lead_article_with_reprint_info.pdf

¹³⁴⁶ Levy, M. (2011, October 26). Towns see crime, carousing surge amid gas boom. *Associated Press*. Retrieved from <http://news.yahoo.com/towns-see-crime-carousing-surge-amid-gas-boom-135643480.html>

¹³⁴⁷ Urbina, I. (2011, October 19). A rush to sign leases for gas runs into mortgage restriction. *The New York Times*. Retrieved from http://www.nytimes.com/2011/10/20/us/rush-to-drill-for-gas-creates-mortgage-conflicts.html?_r=2&hp&

¹³⁴⁸ New York State Department of Environmental Conservation. (2011). *Supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program, well permit issuance for horizontal*

- August 15, 2011 – The *Pittsburgh Post-Gazette* reported that increases in crime followed the Pennsylvania gas drilling boom, noting, for instance, that drunken driving arrests in Bradford County were up 60 percent, DUI arrests were up 50 percent in Towanda, and criminal sentencing was up 35 percent in 2010.¹³⁴⁹
- July 26, 2011 – A New York State Department of Transportation document estimated that fracking in New York could result in the need for road repairs and reconstruction costing \$211 million to \$378 million each year.¹³⁵⁰
- June 20, 2011 – A Keystone Research Center study found that the gas industry’s claim of 48,000 jobs created between 2007 and 2010 as a result of natural gas drilling in Pennsylvania is a far cry from the actual number of only 5,669 jobs—many of which were out-of-state hires.¹³⁵¹
- May 9, 2011 – A study in the *Journal of Town & City Management* found that shale gas development can impose “significant short- and long-term costs” to local communities. The study noted that shale gas development creates a wide range of potential environmental hazards and stressors, all of which can adversely impact regional economies, including tourism and agriculture sectors.¹³⁵²
- November 30, 2010 – The *Dallas Morning News* featured a story, “Drilling Can Dig into Land Value,” reporting that the Wise County Central Appraisal District Appraisal Review Board found that a drilling company had caused an “extraordinary reduction” in property value, by 75 percent.¹³⁵³
- November 28, 2010 – The Texas *Wise County Messenger* reported that some landowners near fracking operations experience excessive noise, exposure to diesel fumes, and problems with trespassing by workers.¹³⁵⁴

drilling and high-volume hydraulic fracturing to develop the Marcellus shale and other low-permeability gas reservoirs (6-233, 234, Rep.).

¹³⁴⁹ Needles, Z. (2011, August 15). Must crime follow Pennsylvania's gas drilling boom? *Pittsburgh Post-Gazette*. Retrieved from <http://www.post-gazette.com/stories/business/legal/must-crime-follow-pennsylvanias-gas-drilling-boom-310373/>

¹³⁵⁰ Reilly, S. (2011, July 26). Document estimates fracking’s toll on N.Y. roads. *Pressconnects.com*. Retrieved from <http://www.pressconnects.com/article/20110726/NEWS01/107260384/Document-estimates-fracking-s-toll-N-Y-roads>

¹³⁵¹ Herzenberg, S. (2011). Drilling deeper into job claims. Keystone Research Center. Retrieved from http://keystoneresearch.org/sites/keystoneresearch.org/files/Drilling-Deeper-into-Jobs-Claims-6-20-2011_0.pdf

¹³⁵² Christopherson, S. & Rightor, N. (2011). How shale gas extraction affects drilling localities: Lessons for regional and city policy makers. *Journal of Town & City Management*, 2(4), 1-20. Retrieved from http://www.greenchoices.cornell.edu/downloads/development/shale/Economic_Effects_on_Drilling_Localities.pdf

¹³⁵³ Heinkel-Wolfe, P. (2010, September 18). Drilling can dig into land value. *Dallas News*. Retrieved from <http://www.dallasnews.com/incoming/20100918-Drilling-can-dig-into-land-value-9345.ece>

¹³⁵⁴ Evans, B. (2010, November 28). Rising volume: ‘Fracking’ has bolstered economies, but noise still echoes around drilling. *WCMessenger.com*. Retrieved from <http://www.wcmessenger.com/2010/news/rising-volume-fracking-has-bolstered-economies-but-noise-still-echoes-around-drilling/>

Inflated estimates of oil and gas reserves and profitability

Industry projections of oil and gas reserves and profitability of drilling have proven undependable. Over time, well production has become increasingly short-lived, which has led companies drilling shale to reduce the value of their assets by billions of dollars, creating shortfalls that are largely filled through asset sales and mounting debt load. Throughout the ten-year fracking boom, the industry as a whole has spent more money drilling wells than selling oil and gas. Beginning in 2014, a fall in oil and gas prices led to a two-year downturn in fracking operations. As interest payments consumed the revenue of many smaller companies, more than 70 U.S. oil and gas companies declared bankruptcy, and the number of oil and gas rigs declined by 75 percent or more. When companies abandoned operations, they also abandoned the wells they drilled, raising questions about who serves as the custodian of inactive wells and their associated infrastructure, now and hereafter.

Beginning in 2017, a modest recovery in prices brought renewed industry enthusiasm for fracking. However, because of the rapid depletion of individual shale wells and the falling output of major shale basins, including the Bakken and the Marcellus, operators must reinvest profits to drill new wells at an increasingly rapid pace just to maintain the same level of extraction. More than half of all U.S. oil is now produced by wells that are two years old or younger, and they are pumping less oil than forecast. In the first half of 2018, despite rising oil prices, fracking-focused companies continued to lose cash.

The need to stabilize economic fundamentals by increasing production and lower costs is contributing to the shift toward “mega-fracking,” with ever-longer laterals to allow one well to access more oil or gas—and with requirements for higher volumes of water, sand, and chemicals per well.

- January 2, 2019 – An analysis by the *Wall Street Journal* comparing productivity estimates provided to investors with third-party projections revealed that thousands of shale wells are pumping considerably less oil and gas than owners were forecasting. Two-thirds of projections made by fracking companies between 2014-2017 in Texas and North Dakota oil basins were overly optimistic. All together, these companies are on track to extract 10 percent less oil and gas than they predicted. “The Journal’s findings suggest current production levels may be hard to sustain without greater spending because operators will have to drill more wells to meet growth targets.”¹³⁵⁵
- October 17, 2018 – A research brief jointly published by the Institute for Energy Economics and Financial Analysis and the Sightline Institute tracked cash flow for 33 leading fracking companies. It found that fracking-focused companies continued to lose cash through the first half of 2018. Specifically, between January and June 2018, in spite

¹³⁵⁵ Olson, B., Elliott, R., & Matthews, C. M. (2019, January 2). Fracking’s secret problem—oil wells aren’t producing as much as forecast. *Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/frackings-secret-problemoil-wells-arent-producing-as-much-as-forecast-11546450162>

of rising oil prices, fracking companies spent \$3.9 billion more on drilling than they generated by selling oil and gas.¹³⁵⁶

- September 20, 2018 – Confronted with falling prices and mounting debt, Southwest Energy sold off its assets in Arkansas’ Fayetteville Shale, placing fracking on hold.¹³⁵⁷
- June 4, 2018 – A macroeconomic study using a simulation model found that economies that depend on fossil fuel extraction could be gravely harmed if global demand for fossil fuels declines in the face of innovations in energy efficiency and renewable technologies and public policy that promotes them. “Russia, the United States or Canada... could see their fossil fuel industries nearly shut down. ... The United States is worse off if it continues to promote fossil fuel production and consumption than if it moves away from them. This is due to the way global fossil fuel prices are formed. If the rest of the world reduces fossil fuel consumption and there is a sell-out, then lower fuel prices will make much US production non-viable, regardless of its own policy, meaning that its assets become stranded.”¹³⁵⁸
- June 16, 2017 – Because of a persistent slump in gas prices and the declining productivity of many of its Marcellus Shale wells, the revenue from gas drilling fees fell for a third straight year in Pennsylvania. The annual fee revenue goes to county and municipal governments, roadway repairs, and infrastructure upgrades, among other things.¹³⁵⁹
- April 3, 2017 – A British team of researchers assessed the physical footprint of well pads in Europe and the United Kingdom if shale gas development goes forward. When they included proposed setbacks for the UK—the minimal distance well pads have to be away from existing homes and other infrastructure—they found that recoverable oil and gas would be limited by 74 percent.¹³⁶⁰
- March 25, 2017 – The *Economist* took shale fracking to task for its unstable finances and inability to turn a profit. “Shale firms are on an unparalleled money-losing streak. About \$11bn was torched in the last quarter, as capital expenditures exceeded cashflows. The

¹³⁵⁶ Institute for Energy Economics and Financial Analysis, & Sightline Institute. (2018, October 17). *Energy market update: Red flags on U.S. fracking, disappointing financial performance continues*. Retrieved from http://ieefa.org/wp-content/uploads/2018/10/Red-Flags-on-U.S.-Fracking_October-2018.pdf

¹³⁵⁷ Breen, D. (2018, September 20). Fayetteville Shale assets sold off, fracking still on hold. *Arkansas Public Media*. Retrieved from <https://www.arkansaspublicmedia.org/post/fayetteville-shale-assets-sold-fracking-still-hold>

¹³⁵⁸ Mercure, J.-F., Pollitt, H., Viñuales, J. E., Edwards, N. R., Holden, P. B., Chewpreecha, U., . . . Knobloch, F. (2018). Macroeconomic impact of stranded fossil fuel assets. *Nature Climate Change*, 8, 588-593. doi: 10.1038/s41558-018-0182-1

¹³⁵⁹ Carlson, C. (2017, June 16). Pennsylvania gas drilling fee revenue falls for third year. *WENY.com*. Retrieved from http://www.weny.com/story/35680098/pennsylvania-gas-drilling-fee-revenue-falls-for-third-year?utm_medium=social&utm_source=twitter_WENYTV

¹³⁶⁰ Clancy, S. A., Worrall, F., Davies, R. J. & Gluyas, J. G. (2018). An assessment of the footprint and carrying capacity of oil and gas well sites: The implications for limiting hydrocarbon reserves. *Science of the Total Environment*, 618, 586-594. Advance online publication. doi: 10.1016/j.scitotenv.2017.02.160

cash-burn rate may well rise again this year. . . . The oil bulls of Houston have yet to prove that they can pump oil and create value at the same time.”¹³⁶¹

- March 21, 2017 – An MIT study questioned the U.S. Energy Information Administration’s rosy projections on the abundance and availability of shale gas and oil. Analyzing field data on oil wells in North Dakota’s Williston Basin, the authors found that advances in fracking technology, such as the shift to longer laterals per well, have had a more modest impact on boosting oil and gas production than the agency had estimated. At the same time, the attraction of operators to the most productive areas of basins has had a greater impact. As time goes by, the prime drilling spots with the easy-to-extract oil or gas will get used up, the authors argued, and technology may not be able to compensate.^{1362, 1363}
- July 7, 2016 – “Oil-field-services companies are depleted after slashing prices and laying off workers, and their slow recovery could crimp the energy industry’s overall ability to bounce back from the oil bust,” according to the *Wall Street Journal*. Almost 70 percent of fracking equipment in the United States has been idled, and 60 percent of field workers involved in fracking have been laid off. Halliburton alone has laid off over 28,500 workers, which is one third of its workforce. More than 70 oilfield services companies have filed for bankruptcy since the beginning of 2015.¹³⁶⁴
- June 15, 2016 – Billions of dollars of proven reserves have become unproven this year, as “59 U.S. oil and gas companies deleted the equivalent of 9.2 billion barrels, more than 20 percent of their inventories,” according to *Bloomberg*. In 2009, the Securities and Exchange Commission (SEC) made it easier for the companies to include in their proven reserves undeveloped acreage and wells that wouldn’t be drilled for years on the grounds that “shale prospects are predictable across wide expanses.” Since then, the SEC has become more strict about inflated reserves estimates.¹³⁶⁵
- May 16, 2016 – *CNN Money* reported on the two latest U.S. oil and gas bankruptcies: SandRidge Energy’s Chapter 11 filing was based on roughly \$4 billion of debt and came the week after the biggest such bankruptcy to date—that of Linn Energy with more than \$10 billion in debt. There had been at least 29 U.S. oil and gas bankruptcies in 2016 at the date of the article’s publication, bringing the 2015-2016 total to at least 64. “The industry has historically been full of wildcatters and speculators. It’s not surprising we’re

¹³⁶¹ America’s shale firms don’t give a frack about financial returns. (2017, March 25). *Economist*. Retrieved from <https://www.economist.com/news/business-and-finance/21719436-exploration-and-production-companies-are-poised-go-another-investment-spree-americas>

¹³⁶² Montgomery, J. B., & O’Sullivan, F. M. (2017). Spatial variability of tight oil well productivity and the impact of technology. *Applied Energy*, 195, 344–355. doi: 10.1016/j.apenergy.2017.03.038

¹³⁶³ Marshall, C. (2017, October 6). Studies attack conventional wisdom on natural gas. *E&E News*. Retrieved from <https://www.eenews.net/stories/1060062933>

¹³⁶⁴ Sider, A. (2016, July 7). Revving up oil fields won’t be so easily done. *Wall Street Journal*. Retrieved from <http://www.wsj.com/articles/revving-up-oil-fields-wont-be-so-easily-done-1467883807>

¹³⁶⁵ Loder, A. (2016, June 15). Why billions in proven shale oil reserves suddenly became unproven. *Bloomberg*. Retrieved from <http://www.bloomberg.com/news/articles/2016-06-15/shale-drillers-paper-wells-draw-sec-scrutiny-before-vanishing>

going through this boom-and-bust cycle,” the article quoted the managing director at oil restructuring firm SOLIC Capital, George Koutsonicolis, as saying.¹³⁶⁶

- May 9, 2016 – “The pace of oil patch bankruptcies is picking up,” a *Forbes* piece read, listing the 15 biggest such bankruptcies to date. “All told, 69 oil and gas producers with \$34.3 billion in cumulative secured and unsecured debt have gone under.”¹³⁶⁷
- March 25, 2016 – Oil and gas borrowers “feasted on what Bloomberg estimates was \$237 billion of easy money without scrutinizing whether the loans could endure a drastic downturn,” according to a *Washington Post* piece focusing on one company, Swift Energy, which itself was \$1.349 billion in debt and had entered bankruptcy. Despite having been cautious prior to the Texas fracking boom, “[a]s the company began to frack more often, the amount it spent on exploration and drilling skyrocketed by hundreds of millions of dollars.” Those expenses combined with global developments led to its failure, along with over 40 other oil and gas companies in 2015. “The consequences are far-reaching. The U.S. oil industry, having grown into a giant on par with Saudi Arabia’s, is shrinking, with the biggest collapse in investment in energy in 25 years. More than 140,000 have lost energy jobs. Banks are bracing for tens of billions of dollars of defaults, and economists and lawyers predict the financial wreckage will accelerate this year.”¹³⁶⁸
- March 10, 2016 – Crude oil production is not falling as quickly as predicted, given the sharp decline in prices and the drop-off in new drilling and fracking operations. As reported by Reuters, this disconnect is due to refracking of older wells, along with other unconventional techniques such as “choking” and “lifting,” which can extend the productive lives of wells or otherwise capture more product from them.¹³⁶⁹
- March 1, 2016 – An analysis of fracking trends in the journal *Nature* concluded that a European shale gas boom was unlikely due to disappointing early yields (Poland, Lithuania and Denmark), links to earthquakes (United Kingdom), and intense public opposition in densely populated areas throughout the continent.¹³⁷⁰
- June 19, 2015 – A *Bloomberg Business* analysis of the 62 drilling companies in the Bloomberg Intelligence North America Independent Exploration and Production Index found that the companies’ debt continued to be a major problem. For 27 of the 62 companies, interest payments were consuming more than 10 percent of revenue. Drillers’ debt rose to \$235 billion at the end of the first quarter, a 16 percent increase over the year

¹³⁶⁶ Egan, M. (2016, May 16). Oil bankruptcies mount despite crude rebound. *CNN Money*. Retrieved from <http://money.cnn.com/2016/05/16/investing/sandridge-energy-oil-bankruptcy/>

¹³⁶⁷ Helman, C. (2016, May 9). The 15 biggest oil bankruptcies (so far). *Forbes*. Retrieved from <http://www.forbes.com/sites/christopherhelman/2016/05/09/the-15-biggest-oil-bankruptcies-so-far/#7c765e10739b>

¹³⁶⁸ Harlan, C. (2016, March 25). The big bust in the oil fields. *The Washington Post*. Retrieved from <https://www.washingtonpost.com/news/wonk/wp/2016/03/25/the-big-bust-in-the-oil-fields/>

¹³⁶⁹ Gopinath, S., & Gayathri, A. (2016, March 10). Forget fracking. Choking and lifting are latest efforts to stem U.S. shale bust. *Reuters*. Retrieved from <http://www.reuters.com/article/us-usa-shale-analysis-idUSKCN0WB1AI>

¹³⁷⁰ Inman, M. (2016). Can fracking power Europe? *Nature*, 531, 22-24. Retrieved from <http://www.nature.com/news/can-fracking-power-europe-1.19464>

prior. *Bloomberg Business* expressed concern that shale drillers have “consistently spent money faster than they’ve made it, even when oil was \$100 a barrel.” S&P assigned speculative, or junk, ratings to 45 of the 62 companies in Bloomberg’s index.¹³⁷¹

- April 7, 2015 – A Moody’s Investors Service analysis of liquefied natural gas (LNG) prospects found that lower oil prices were causing suppliers to defer or cancel most proposed LNG projects. Moody’s found that this was due in part to the drop in international oil prices relative to U.S. natural gas prices, thus removing the economic advantage of U.S. LNG projects. Moody’s stated, “LNG is a capital-intensive infrastructure business prone to periodic construction cycles that lead to overcapacity, which we expect will continue for the rest of the decade.”¹³⁷²
- March 20, 2015 – A study by the Energy Watch Group in Germany found that the costs of allowing fracking in Germany would outweigh the benefits, noting in part that natural gas trading in the United States has been declining since 2009. The study also noted the costs of infrastructure, environmental and health risks and pointed to the need to expand renewable energy.¹³⁷³
- December 19, 2014 – An International Energy Agency (IEA) report projected that U.S. domestic oil supplies, dominated by fracking, face challenges, and oil output from shale formations output, will level off and decline in the early 2020s.¹³⁷⁴ IEA Chief Economist Fatih Birol said, “A well-supplied oil market in the short-term should not disguise the challenges that lie ahead.”¹³⁷⁵
- August 29, 2014 – Andrew Nikiforuk, a Canadian energy analyst, reported on diminishing returns and the higher-cost, higher-risk nature of fossil fuel extraction by fracking. Nikiforuk wrote, “Most of the world’s oil and gas firms are now pursuing extreme hydrocarbons because the cheap and easy stuff is gone.... That means industry will spend more good money chasing poor quality resources. They will inefficiently mine and frack ever larger land bases at higher environmental costs for lower energy returns.”¹³⁷⁶

¹³⁷¹ Loder, A. (2015, June 18). The shale industry could be swallowed by its own debt. *Bloomberg Business*. Retrieved from <http://www.bloomberg.com/news/articles/2015-06-18/next-threat-to-u-s-shale-rising-interest-payments>

¹³⁷² Moody’s Investors Service. (2015, April 7). Lower oil prices cause suppliers of liquefied natural gas to nix projects. Retrieved from https://www.moodys.com/research/Moodys-Liquefied-natural-gas-projects-nixed-amid-lower-oil-prices--PR_322439

¹³⁷³ Sagener, N. (2015, March 26). Fracking costs outweigh benefits for Germany and Europe, study says. *EurActiv*. Retrieved from <http://www.euractiv.com/sections/energy/fracking-costs-outweigh-benefits-germany-and-europe-study-says-313087>

¹³⁷⁴ International Energy Agency. (2014, December). World Energy Outlook 2014 Executive Summary. Retrieved from http://www.iea.org/publications/freepublications/publication/WEO_2014_ES_English_WEB.pdf

¹³⁷⁵ Dimick, D. (2014, December 19). How long can the U.S. oil boom last? *National Geographic*. Retrieved from <http://news.nationalgeographic.com/news/2014/12/141219-fracking-oil-supply-price-reserves-profits-environment/>

¹³⁷⁶ Nikiforuk, A. (2014, August 29). A big summer story you missed: Soaring oil debt returns diminish as energy companies resort to higher-cost, higher-risk hydrocarbons. *The Tyee*. Retrieved from <http://thetyee.ca/Opinion/2014/08/29/Soaring-Oil-Debt-Summer/>

- July 29, 2014 – According to the U.S. Energy Information Administration, energy companies are incurring increasing debt and selling assets to continue drilling in shale. “Based on data compiled from quarterly reports, for the year ending March 31, 2014, cash from operations for 127 major oil and natural gas companies totaled \$568 billion, and major uses of cash totaled \$677 billion, a difference of almost \$110 billion. This shortfall was filled through a \$106 billion net increase in debt and \$73 billion from sales of assets . . .”¹³⁷⁷
- July 2014 – Researchers at the Washington, DC-based Environmental Law Institute and Washington & Jefferson College in Pennsylvania collaborated to produce a report designed in part to help communities avoid the “boom and bust” cycles of extractive industries. Authors warned, “While resource extraction has long been regarded as an economic benefit, a body of academic literature suggests that long term growth based chiefly on resource extraction is rare.” Confounding factors include transience of the workforce, localized inflation, widening disparities in royalties and impact fee disbursement, commodity price volatility, and communities overspending on infrastructure.¹³⁷⁸
- June 19, 2014 – Energy analyst Deborah Lawrence Rogers outlined the spiraling debt and severe deterioration of the assets of five major shale gas drillers over the last five years. She concluded, “This is not sustainable. It could be argued that it is not even moral. It is a failed business model of epic proportion. While companies could make the argument at one time that this was a short term downtrend, that no longer holds water because this pattern is long term.”¹³⁷⁹
- April 10, 2014 – A report by a petroleum geologist and petroleum engineer concluded the 100-year supply of shale gas is a myth, distinguished between what is technically recoverable and economically recoverable shale gas, and asserted that at current prices, New York State has no economically recoverable shale gas.¹³⁸⁰
- February 28, 2014 – Maria van der Hoeven, Executive Director of the IEA, said in an interview with *The Christian Science Monitor* that there is only a decade left in the U.S. shale oil and gas boom, noting that her agency’s analysis predicts that production will soon flatten out and, by 2025, begin to decline.¹³⁸¹

¹³⁷⁷ US Energy Information Administration. (2014, July 29). As cash flows flatten, major energy companies increase debt, sell assets. *Today in Energy*. Retrieved from <http://www.eia.gov/todayinenergy/detail.cfm?id=17311>

¹³⁷⁸ Environmental Law Institute, & Washington & Jefferson College. (2014, July). Getting the boom without the bust: Guiding Southwestern Pennsylvania through shale gas development. Retrieved from <http://www.eli.org/sites/default/files/eli-pubs/getting-boom-final-paper-exec-summary-2014-07-28.pdf>

¹³⁷⁹ Rogers, D. L. (2014, June 19). Huge CAPEX = free cash flow? Not in shales. *Energy Policy Forum*. Retrieved from <http://energypolicyforum.org/2013/06/19/huge-capex-free-cash-flow-not-in-shales/>

¹³⁸⁰ Labyrinth Consulting Services, Inc., Berman, A., & Pittinger, L. (2014). Resource Assessment of Potentially Producing Natural Gas Volumes From the Marcellus Shale, State of New York. Retrieved from: <http://www.lwvny.org/>

¹³⁸¹ Unger, D. J. (2014, February 28). IEA chief: Only a decade left in US shale oil boom. *Christian Science Monitor*. Retrieved from <http://www.csmonitor.com/Environment/Energy-Voices/2014/0228/IEA-chief-Only-a-decade-left-in-US-shale-oil-boom>

- December 18, 2013 – A University of Texas study in *Proceedings of the National Academy of Sciences* found that fracking well production drops sharply with time, which undercuts the oil and gas industry’s economic projections.¹³⁸² In an interview about the study with *StateImpact NPR* in Texas, Tad Patzek, Chair of the Department of Petroleum and Geosystems Engineering at University of Texas at Austin, noted that fracking “also interferes now more and more with daily lives of people. Drilling is coming to your neighborhood, and most people abhor the thought of having somebody drilling a well in their neighborhood.”¹³⁸³
- August 18, 2013 – *Bloomberg News* reported that low gas prices and disappointing wells have led major companies to devalue oil and gas shale assets by billions of dollars.¹³⁸⁴
- October 21, 2012 – The *New York Times* reported that many gas drilling companies overproduced natural gas backed by creative financing and now “are committed to spending far more to produce gas than they can earn selling it.” “We are all losing our shirts today,” said Exxon CEO Rex Tillerson in the summer of 2012.¹³⁸⁵
- July 13, 2012 – *The Wall Street Journal* reported that ITG Investment Research, at the request of institutional investors, evaluated the reserves of Chesapeake Energy Corporation’s shale gas reserves in the Barnett and Haynesville formations and found them to be only 70 percent of estimates by Chesapeake’s engineering consultant for the company’s 2011 annual report. Chesapeake and its consultant defended their figures.¹³⁸⁶
- August 23, 2011 – The U.S. Geological Survey (USGS) cut the government’s estimates of natural gas in the Marcellus Shale from 410 trillion cubic feet to 84 trillion cubic feet, equivalent to a reduction from approximately 16 years of U.S. consumption at current levels of natural gas use, to approximately 3.3 years of consumption. The USGS’s updated estimate was for natural gas that is technically recoverable, irrespective of economic considerations such as the price of natural gas or the cost of extracting it.¹³⁸⁷

¹³⁸² Patzek, T. W., Male, F., & Marder, M. (2013). Gas production in the Barnett Shale obeys a simple scaling theory. *Proceedings of the National Academy of Sciences*, 110(49), 19731-19736. doi: 10.1073/pnas.1313380110

¹³⁸³ Buchele, M. (2013, December 18). New study shows how gas production from “fracked” wells slows over time. *StateImpact*. Retrieved from <http://stateimpact.npr.org/texas/2013/12/18/new-study-shows-how-gas-production-from-fracked-wells-slows-over-time/>

¹³⁸⁴ Monks, M., Penty, R., & De Vynck, G. (2013, August 18). Shale grab in U.S. stalls as falling values repel buyers. *Bloomberg*. Retrieved from <http://www.bloomberg.com/news/2013-08-18/shale-grab-in-u-s-stalls-as-falling-values-repel-buyers.html>

¹³⁸⁵ Krauss, C., & Lipton, E. (2012, October 20). After the boom in natural gas. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/10/21/business/energy-environment/in-a-natural-gas-glut-big-winners-and-losers.html?pagewanted=all>

¹³⁸⁶ Wirz, M. (2013, July 13). Chesapeake reserve doubted. *Wall Street Journal*. Retrieved from <http://online.wsj.com/news/articles/SB10001424052702303644004577523411723501548>

¹³⁸⁷ United States Geological Survey. (2011, August 23). USGS releases new assessment of gas resources in the Marcellus shale, Appalachian Basin. *USGS Newsroom*. Retrieved from http://www.usgs.gov/newsroom/article.asp?ID=2893&from=rss_home#.Uok0mGRO_GA.

- June 26-27, 2011 – As reported in two *New York Times* stories, hundreds of emails, internal documents, and analyses of data from thousands of wells from drilling industry employees, combined with documents from federal energy officials, raised concerns that shale gas companies were overstating the amount of gas in their reserves and the profitability of their operations.^{1388, 1389, 1390} The *New York Times*' public editor criticized the stories, but offered no evidence that the major findings were wrong.¹³⁹¹ The *New York Times*' news editors publicly defended both stories against the public editor's criticism.^{1392, 1393}

¹³⁸⁸ Urbina, I. (2011, June 25). Insiders sound an alarm amid a natural gas rush. *The New York Times*. Retrieved from <http://www.nytimes.com/2011/06/26/us/26gas.html?pagewanted=all>

¹³⁸⁹ U.S. Energy Information Administration. (2014, May 30). *U.S. Natural Gas Summary*. Retrieved from http://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_nus_a.htm

¹³⁹⁰ Urbina, I. (2011, August 24). Geologists sharply cut estimate of shale gas. *The New York Times*. Retrieved from <http://www.nytimes.com/2011/08/25/us/25gas.html>

¹³⁹¹ Brisbane, A. S. (2011, July 16). Clashing views on the future of natural gas. *The New York Times*. Retrieved from http://www.nytimes.com/2011/07/17/opinion/sunday/17pubed.html?gwh=7D408242717755A0E06B0D265498E177&gwt=pay&assetType=opinion&_r=0

¹³⁹² Brisbane, A. S. (2011, July 17). Times editors respond to my shale gas column. *The New York Times*. Retrieved from <http://publiceditor.blogs.nytimes.com/2011/07/17/times-editors-respond-to-my-shale-gas-column/>

¹³⁹³ Brisbane, A. S. (2011, July 30). Times editors respond to column on redactions. *The New York Times*. Retrieved from <http://publiceditor.blogs.nytimes.com/2011/07/30/times-editors-respond-to-column-on-redactions/>

Disclosure of serious risks to investors

A snapshot of the dangers posed by natural gas drilling and fracking can be found in the annual Forms 10-K that oil and natural gas companies are required to file with the U.S. Securities and Exchange Commission (SEC). The information so contained in these reports, which provide a comprehensive summary of a company's financial performance, provides a window into the harms and risks of fracking that are otherwise shielded from view by "gag order" clauses in court settlements, non-disclosure agreements between industry and landowners, and trade secret claims in regards to the chemical ingredients of fracking fluid. In this way, the Form 10-K can serve as an imperfect surrogate for right-to-know data. Recently, Forms 10-K have been used to warn investors about risks from climate change lawsuits.

Federal law requires that companies offering stock to the public disclose in their Form 10-K, among other things, the "most significant factors that make the offering speculative or risky."¹³⁹⁴ In a review of Forms 10-K spanning the past decade available on the SEC's website, oil and natural gas companies have routinely warned of drilling's serious risks. In the words of Exxon Mobil Corporation's subsidiary XTO Energy, "our operations are subject to hazards and risks inherent in drilling."¹³⁹⁵ In the language of Range Resources Corporation: "development and exploratory drilling and production activities are subject to many risks."¹³⁹⁶

Such hazards and risks include leaks, spills, explosions, blowouts, environmental damage, property damage, injury, and death. Chesapeake Energy Corporation has stated that "horizontal and deep drilling activities involve greater risk of mechanical problems than vertical and shallow drilling operations."¹³⁹⁷ Over the past 15 years, companies have combined horizontal drilling with hydraulic fracturing to tap natural gas and oil in shale formations.

The companies also routinely warn of inadequate insurance to cover drilling harms. According to XTO Energy, "we are not fully insured against all environmental risks, and no coverage is maintained with respect to any penalty or fine required to be paid by us."¹³⁹⁸ Range Resources states, "we can provide no assurance that our coverage will

¹³⁹⁴ See 17 C.F.R. § 229.503(c) (companies must disclose the "most significant" risks); 17 C.F.R. § 230.405 ("the term material, when used to qualify a requirement for the furnishing of information as to any subject, limits the information required to those matters to which there is a substantial likelihood that a reasonable investor would attach importance in determining whether to purchase the security registered"); 17 C.F.R. § 240.10b-5 (it is illegal "to make any untrue statement of a material fact or to omit to state a material fact . . . in connection with the purchase or sale of any security"); 17 C.F.R. 249.310 (requiring Form 10-K, "for annual and transition reports pursuant to sections 13 or 15(d) of the Securities Exchange Act of 1934.")

¹³⁹⁵ XTO Energy Corp., Annual Report (Form 10-K) (Feb. 25, 2010) at 25.

¹³⁹⁶ Range Resources Corp., Annual Report (Form 10-K) (Feb. 24, 2015) at 22.

¹³⁹⁷ Chesapeake Energy Corp., Annual Report (Form 10-K) (Feb. 27, 2015) at 18.

¹³⁹⁸ XTO Energy Corp., Annual Report (Form 10-K) (Feb. 25, 2010) at 17.

adequately protect us against liability from all potential consequences, damages and losses.”¹³⁹⁹

Houston-based Noble Energy provides a representative example of the risks that at least several drilling companies include in their annual reports. Noble states:

Our operations are subject to hazards and risks inherent in the drilling, production and transportation of crude oil, natural gas and NGLs [natural gas liquids], including:

- injuries and/or deaths of employees, supplier personnel, or other individuals;
- pipeline ruptures and spills;
- fires, explosions, blowouts and well cratering;
- equipment malfunctions and/or mechanical failure on high-volume, high-impact wells;
- leaks or spills occurring during the transfer of hydrocarbons from an FPSO [floating production storage and offloading vessels] to an oil tanker;
- loss of product occurring as a result of transfer to a rail car or train derailments;
- formations with abnormal pressures and basin subsidence which could result in leakage or loss of access to hydrocarbons;
- release of pollutants;
- surface spillage of, or contamination of groundwater by, fluids used in operations;
- security breaches, cyber attacks, piracy, or terroristic acts;
- theft or vandalism of oilfield equipment and supplies, especially in areas of active onshore operations;
- hurricanes, cyclones, windstorms, or “superstorms,” which could affect our operations in areas such as the Gulf Coast, deepwater Gulf of Mexico, Marcellus Shale or Eastern Mediterranean;
- winter storms and snow which could affect our operations in the DJ Basin [Denver-Julesburg Basin in Colorado] or Marcellus Shale;
- extremely high temperatures, which could affect third party gathering and processing facilities in the DJ Basin;
- volcanoes which could affect our operations offshore Equatorial Guinea;
- flooding which could affect our operations in low-lying areas;
- harsh weather and rough seas offshore the Falkland Islands, which could limit certain exploration activities; and
- pandemics and epidemics, such as the Ebola virus, which is ongoing in certain regions of West Africa and may adversely affect our business operations through travel or other restrictions.

Any of these can result in loss of hydrocarbons, environmental pollution and other damage to our properties or the properties of others.¹⁴⁰⁰

Noble has language similar to that found in other companies’ annual reports about inadequate insurance and adds, “we do not have insurance for gradual pollution nor do

¹³⁹⁹ Range Resources Corp., Annual Report (Form 10-K) (Feb. 24, 2015) at 26.

¹⁴⁰⁰ Noble Energy, Annual Report (Form 10-K) (Feb. 19, 2015) at 38.

we have coverage for penalties or fines that may be assessed by a governmental authority.”¹⁴⁰¹

Forms 10-K are also a tool of disclosure for risks concerning climate change beyond specific negative impacts on operations (hurricanes, flooding, etc.) listed, for example, in Noble Energy’s annual report cited above. In 2016, Chevron became the first major oil company to warn investors in its Form 10-K about the risk of climate change lawsuits: “Increasing attention to climate change risks has resulted in an increased possibility of governmental investigations and, potentially, private litigation against the company.”¹⁴⁰² Also in 2016, the SEC began investigating Exxon Mobil for valuing its assets in ways that do not account for the possible depreciation of oil and gas under a policy framework that shifts investments in energy away from fossil fuels and toward renewable sources.¹⁴⁰³ Under pressure from investors, Exxon agreed in December 2017 to disclose more details about climate risks by filing with the SEC, in a Form 8-K, a statement that said the company would no longer resist motions from shareholders seeking this information.¹⁴⁰⁴

At this writing, it is not clear whether, under the current Administration, the SEC will continue its push toward investor disclosure of climate change risks.¹⁴⁰⁵ Nevertheless, the unsolved problem of methane leaks is increasingly recognized as a rising risk for oil and gas investors concerned that methane emissions are not transparently managed, may negate the claim that natural gas is more climate-friendly than coal, and hence pose a risk to their investments.^{1406, 1407}

The risks identified by these oil and gas companies are not just hypothetical. Many, if not all of these risks are reflected in the evidence compiled in other sections of this Compendium.

¹⁴⁰¹ Noble Energy. Annual Report (Form 10-K) (Feb 19, 2015) at 79.

¹⁴⁰² Romm, J. (2017, March 2). Chevron is first oil major to warn investors of risks from climate change lawsuits. *ThinkProgress*. Retrieved from <https://thinkprogress.org/chevron-admits-climate-lawsuits-threaten-profits-33937dd562fd/#.56j1qq4h3>

¹⁴⁰³ Olson, B., & Viswanatha, A. (2016, September 20). SEC probes Exxon over accounting for climate change. *Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/sec-investigating-exxon-on-valuing-of-assets-accounting-practices-1474393593>

¹⁴⁰⁴ Cushman, Jr., J. H., & Hasemyer, D. (2017, December 12). Exxon agrees to disclosure climate risks under pressure from investors. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/12122017/exxon-climate-risk-disclosure-sec-shareholder-investigation-pressure>

¹⁴⁰⁵ Griffen, P., & Jaffe, A. M. (2017, February 15). Are fossil fuel companies telling investors enough about the risks of climate change? *The Conversation*. Retrieved from <https://theconversation.com/are-fossil-fuel-companies-telling-investors-enough-about-the-risks-of-climate-change-72562>

¹⁴⁰⁶ Connan, M.-S. (2016, December 1). *Methane: The next frontier for fossil fuel emissions*. Retrieved from <https://us.allianzgi.com/en-us/insights/capital-markets-and-economics/methane-the-next-frontier-for-fossil-fuel-emissions>

¹⁴⁰⁷ Gilblom, K. (2017, December 19). Insidious gas leaks are casting doubts over Shell's clean credentials. *Bloomberg*. Retrieved from <https://www.bloomberg.com/news/articles/2017-12-20/as-shell-gambles-on-gas-leaks-cast-cloud-over-clean-credentials>

Medical and scientific calls for more study, reviews confirming evidence for harm, and calls for increased transparency and science-based policy

With increasing urgency, groups of medical and other health professionals and scientists are issuing calls for comprehensive, long-term study of the full range of potential health and ecosystem effects of drilling and fracking. These appeals underscore the accumulating evidence of harm, point to the major knowledge gaps that remain, and decry the atmosphere of secrecy and intimidation that continues to impede the progress of scientific inquiry. Published reviews and international governmental reports underscore the mounting evidence of health risks including developmental, neurological, carcinogenic, respiratory, reproductive, and psychological. Health professionals and scientists in the United States and around the world increasingly call for the suspension of unconventional gas and oil extraction activities in order to limit, mitigate, or eliminate its serious, adverse public health hazards, including health threats from climate change.

- March 29, 2019 – Doctors for the Environment Australia announced the reinforcement of its position that no new gas extraction of any kind should occur in Australia. Its position was largely informed by the wealth of literature from the United States documenting adverse health findings.¹⁴⁰⁸ The organization’s review found growing evidence of direct health impacts as well as a clear potential for indirect impacts of gas and oil mining on essential environmental determinants of health. “These concerns include risks to a stable climate, air quality, water quality, water security, food security, community cohesion and, in some locations, geological stability. The cumulative impacts of these industries on the wider requirements for good health and wellbeing are extremely concerning.”¹⁴⁰⁹
- February 1, 2019 – Natural gas extraction via fracking is associated with “preterm birth, high-risk pregnancy, and possibly low birth weight; three types of asthma exacerbations; and nasal and sinus, migraine headache, fatigue, dermatologic, and other symptoms,” according to a review covering research through mid-2017.¹⁴¹⁰ The Johns Hopkins Bloomberg School of Public Health scientists cited the methodological robustness of these studies and the biological plausibility of the links found. Further, they included in their review the contribution of fracking to climate change and its further health impacts. Authors expressed serious doubt that the risks of fracking can be managed. “Some have suggested that regulations will prevent health impacts, but no health studies provide guidance on what regulations, if any, will get the health effects to go away.” The authors further noted that the fracking boom has, in many regions, outpaced the ability of science

¹⁴⁰⁸ Haswell, M., & Shearman, D. (2019, March 29). Expanding gas mining threatens our climate, water and health. *The Conversation*. Retrieved from <https://theconversation.com/expanding-gas-mining-threatens-our-climate-water-and-health-113047>

¹⁴⁰⁹ Haswell, M., & Shearman, D. (2019). The implications for human health and wellbeing of expanding gas mining in Australia: Onshore oil and gas policy background paper. College Park, South Australia: Doctors for the Environment Australia. Retrieved from <https://www.dea.org.au/wp-content/uploads/2018/12/DEA-Oil-and-Gas-final-28-11-18.pdf>

¹⁴¹⁰ Gorski, I., & Schwartz, B. S. (2019). Environmental health concerns from unconventional natural gas development. *Oxford Research Encyclopedia of Global Public Health*. doi: 10.1093/acrefore/9780190632366.013.44

to document health impacts with long latencies, such as cancer and neurodegenerative diseases. The review concluded that the results of early health studies “should give pause” about whether and how shale gas fracking should proceed and referenced the several U.S. states and nations that have disallowed fracking, citing health concerns.

- December 12, 2018 – “The healthcare community has a professional mandate to protect society from harm to human health. We have a responsibility to help society move away from fossil fuels and accelerate the transition to renewable energy,” wrote a team of medical professionals in an editorial for the *British Medical Journal*. Citing the “overwhelming” evidence that fossil fuels pose serious threats to public and planetary health, the group identified divestment from fossil fuel corporations as a strategy that increasing numbers of medical professional groups are taking, as part of fulfilling that professional mandate.¹⁴¹¹
- December 4, 2018 – In a review of 63 studies in 20 countries, a University of Southern California medical research team concluded that the potential public health effects of “upstream oil extraction” include cancer, liver damage, immunodeficiency, and neurological damage. Collectively, onshore operations that bring crude oil to the surface affect nearly six million people that live or work nearby. Community health, worker health, and animal health in oil-drilling regions were addressed in this review, as well as effects on soil, air, surface water, and drinking water quality. In their analysis, the authors included both conventional or unconventional extraction techniques but noted that, in the United States, hydraulic fracturing accounted for 50 percent of total oil production in 2015—up from less than two percent in 2000.¹⁴¹²
- August 16, 2018 – The closer one lives to fracking sites, the more likely one is to experience toxic exposures and a related number of health impacts. Setbacks less than one quarter mile (1,320 feet) from drilling and fracking operations are not sufficient to protect public health, and additional setbacks are needed to protect vulnerable groups and settings, according to an expert panel assembled in Pennsylvania. “Vulnerable groups were defined by the panelists as children, neonates, fetuses, embryos, pregnant women, elderly individuals, those with pre-existing medical or psychological conditions, and those with pre-existing respiratory conditions. Vulnerable settings were defined as schools, day care centers, hospitals, and long-term care facilities. The panel, which consisted of 18 health care providers, public health practitioners, environmental advocates, and researchers/scientists, was brought together to compare existing minimum setback requirements against research about the health impacts of living near fracking activity. The panel was unable to come to agreement on a minimum safe setback distance between one quarter and two miles. It also noted that the failure to achieve consensus on this issue reflects uncertainties based on limited data of real-time toxic emissions from

¹⁴¹¹ Law, A., Duff, D., Saunders, P., Middleton, J., & McCoy, D. (2018). Medical organisations must divest from fossil fuels. *British Medical Journal*, 363, k5163. doi: 10.1136/bmj.k5163

¹⁴¹² Johnston, J. E., Lim, E., & Roh, H. (2018). Impact of upstream oil extraction and environmental public health: A review of the evidence. *Science of the Total Environment*, 657, 187-199. doi: 10.1016/j.scitotenv.2018.11.483

drilling and fracking operations, the limited number of scientific studies available, and the potential for episodically recurrent periods of high exposures.¹⁴¹³

- June 5, 2018 – The exacerbation of climate change caused by shale gas development is sufficient grounds to confirm that “the risks clearly and considerably outweigh any possible benefits,” according to two public health scholars who published their editorial in the *British Medical Journal*.¹⁴¹⁴
- May 9, 2018 – With the objective of making practical recommendations for primary care providers, researchers sought to identify all published peer-reviewed studies examining evidence of direct relationships between high-volume hydraulic fracturing and human health harms. As a scoping review, the study purpose was to examine the extent and breadth of research and identify research gaps. Their criteria for inclusion were “narrow” and included peer-reviewed journal articles from the United States, in English, published between 2000 and September 2017. Among the 18 studies selected, 10 showed a positive correlation to the negative health outcome, six showed a mixed relationship, and two found no relationship. The authors wrote, “The health impacts found in the limited studies in this scoping review should encourage health care providers to maintain a high index of suspicion with patients who live or have lived near [drilling and fracking] activity or who have worked in oil and gas fields.”¹⁴¹⁵
- April 4, 2018 – Two scholars critiqued the wide-ranging consultation on unconventional gas extraction, including fracking, which was commissioned by the Scottish government and published in November 2016.¹⁴¹⁶ Noting that the Scottish assessment is more comprehensive than assessments conducted in the United States and elsewhere, the authors wrote, “The public health impact assessment in particular is underpinned by what appears to be a rigorous and transparent examination of existing scientific literature drawing on external peer review at some stages.” However, they also went on to say that some of the conclusions drawn “appear to be optimistic readings of data and experience. For example, assessments of the ability of industry and regulators to control fracking effects on public health do not stand up to scrutiny.” They identified several other ways in which the health impact assessment’s conclusions were not always supported by the evidence it reviewed and if the assessment had overlooked areas of concern. For example, the literature on social impact assessments, as well as health research addressing questions of well-being and mental health, were neglected. Nevertheless, these scholars recommended the Scottish consultation as a research and policy tool.

¹⁴¹³ Lewis, C., Greiner, L. H., & Brown, D. R. (2018). Setback distances for unconventional oil and gas development: Delphi study results. *PlosOne*, 13(8), e0202462. doi: 10.1371/journal.pone.0202462

¹⁴¹⁴ McCoy, D., & Saunders, P. (2018). Fracking and health. *British Medical Journal*, 361, k2397. doi: 10.1136/bmj.k2397

¹⁴¹⁵ Wright, R., & Muma, R. D. (2018). High-volume hydraulic fracturing and human health outcomes: A scoping review. *Journal of Occupational and Environmental Medicine*, 5, 424–429. doi: 10.1097/JOM.0000000000001278

¹⁴¹⁶ Watterson, A., & Dinan, W. (2018). Public health and unconventional oil and gas extraction including fracking: Global lessons from a Scottish government review. *International Journal of Environmental Research and Public Health*, 15(4), pii: E675. doi: 10.3390/ijerph15040675

- February 12, 2018 – The Los Angeles County Department of Public Health reviewed the public health and safety risks of oil and gas facilities and identified “next steps.” These included an increase in setback distances, continuous air monitoring systems around oil and gas operations, increased local oversight, a comprehensive Community Safety Plan, and Emergency Preparedness Plans. For this report, authors reviewed epidemiological literature, environmental and health impact assessments, neighborhood health investigations, and consultations with various jurisdictions regarding oil and gas ordinances.¹⁴¹⁷ At the time of the report preparation, there were 3,468 active and 1,850 inactive oil and gas wells countywide. Conditions varied widely. Among the most egregious was an active well that was located 60 feet from a multi-unit housing complex and that shared borders with a local high school and a college dormitory. “The potential public health impacts of oil and gas sites located in densely populated areas are concerning, particularly to those who experience disproportionate economic and health inequities.” Recommendations for some individual neighborhoods included offering temporary relocation assistance. “The report was ordered by the city of Los Angeles after complaints of headaches, eye and throat irritation, nausea and vomiting were received from residents of South Los Angeles, Wilmington and unincorporated county areas in the past several years.”¹⁴¹⁸
- December 12, 2017 – Commissioned by the Australian government, the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory released its Draft Final Report. Tasked with identifying and assessing the risks of shale gas fracking for Australia’s remote Northern Territory—and with making recommendations to mitigate those risks where possible—the Inquiry describes a multiplicity of risks, including many that are ill-defined and understudied¹⁴¹⁹ Most notably, it recommends a halt on all fracking production licenses until a two-to-three-year study can be launched to further understand the nature of the risks for the particular ecology and culture of the region.”¹⁴²⁰ Fracking is currently prohibited in the Northern Territory, which is estimated to hold over one-third of Australia’s shale gas.
- November 7, 2017 – In a commentary published in *JAMA*, two South Dakota physicians reviewed the data on the potential public health implications of fracking, including asthma, water contamination, exposures to fracking fluid, and exposure of workers to

¹⁴¹⁷ Butler, K., Tayour, C., Batikian, C., Contreras, C., Bane, M., Rhoades, E., . . . Rangan, C. (2018). Public health and safety risks of oil and gas facilities in Los Angeles County. Los Angeles County Department of Public Health. Retrieved from http://publichealth.lacounty.gov/eh/docs/PH_OilGasFacilitiesPHSafetyRisks.pdf

¹⁴¹⁸ Scauzillo, S. (2018, February 27). Living near oil wells can cause health problems, LA County believes it has solutions. *Los Angeles Daily News*. Retrieved from <https://www.dailynews.com/2018/02/27/living-near-oil-wells-can-cause-health-problems-la-county-believes-it-has-solutions/>

¹⁴¹⁹ Scientific Inquiry into Hydraulic Fracturing in the Northern Territory. (2017). *Draft final report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory*. Retrieved from <https://frackinginquiry.nt.gov.au/inquiry-reports/draft-final-report>

¹⁴²⁰ Reuters staff. (2017, December 12). Study seen needed before lifting fracking ban in remote Australia. *Reuters*. Retrieve from <https://www.reuters.com/article/us-australia-fracking/study-seen-needed-before-lifting-fracking-ban-in-remote-australia-idUSKBN1E60TL>

silica dust. They voiced specific concerns about parkinsonism, neuropathy, and kidney disease, and called for prospective toxicity studies.¹⁴²¹

- October 25, 2017 – Scientists and physicians (including two co-authors of this *Compendium*) reviewed the body of evidence on the potential of unconventional oil and natural gas (UOG) development and operations to contribute to neurological and developmental harm via increased air and water pollution in the surrounding communities where it takes place. Highlighting data gaps and research limitations (such as the nondisclosure by industry of chemical mixtures), they nevertheless pinpointed evidence in the existing literature showing that “the chemicals that are used in or are byproducts of UOG operations have been linked to serious neurodevelopmental health problems in infants.”¹⁴²² Interviewed by the *Guardian*, a co-author said, “Given the profound sensitivity of the developing brain and the central nervous system, it is very reasonable to conclude that young children who experience frequent exposure to these pollutants are at particularly high risk for chronic neurological problems and disease.”¹⁴²³ The research team concluded that there is “a need for public health prevention techniques, well-designed studies, and stronger state and national regulatory standards.”
- October 23, 2017 – A Yale University research team reported that carcinogens involved in fracking operations have the potential to contaminate both air and water in nearby communities in ways that may increase the risk of childhood leukemia. The team identified 55 known or possible carcinogens that may be released into air and water from fracking operations. Of these, 20 are linked to leukemia or lymphoma.¹⁴²⁴ “This analysis creates a priority list of carcinogens to target for future exposure and health studies.”¹⁴²⁵
- July 31, 2017 – A review by a team of medical, psychological, occupational, and environmental health professionals concluded, “there appears to be an array of levels of psychosocial functioning that are deleteriously affected by the fracking process and industries and their aftermath.” Though much of the research they identified linking fracking to psychological functioning was preliminary, documented impacts included: individual-level impacts, such as feelings of stress and powerlessness; community-level impacts, such as disrupted social fabric and new gender/sex imbalances in the community; collective trauma such as caused by a boom-and-bust cycle; and worker impacts, such as psychosocial impacts of being a transient worker. The review provided

¹⁴²¹ Wilke, R. A., & Freeman, J. W. (2017). Potential health implications related to fracking. *JAMA*, 318(17), 1645-1646. doi: 10.1001/jama.2017.14239

¹⁴²² Webb, E., Moon, J., Dyrszka, L., Rodriguez, B., Cox, C., Patisaul, H., ... London, E. (2017). Neurodevelopmental and neurological effects of chemicals associated with unconventional oil and natural gas operations and their potential effects on infants and children. *Reviews on Environmental Health*. Advance online publication. doi: 10.1515/reveh-2017-0008

¹⁴²³ Davis, N. (2017, October 25). Pollutants from fracking could pose health risk to children, warn researchers. *Guardian*. Retrieved from <https://www.theguardian.com/environment/2017/oct/25/pollutants-from-fracking-could-pose-health-risk-to-children-warn-researchers>

¹⁴²⁴ Elliot, E. G., Trihn, P., Ma, X., Leaderer, B. P., Ward, M. H., & Deziel, N. C. (2017). Unconventional oil and gas development and risk of childhood leukemia. *Science of the Total Environment*, 576. doi: 10.1016/j.scitotenv.2016.10.072

¹⁴²⁵ Yale News. (2016, October 24). Fracking linked to cancer-causing chemicals, new YSPH study finds. Retrieved from <https://publichealth.yale.edu/news/article.aspx?id=13714>

“an important first step in understanding the psychological toll that this energy development strategy has on fracking communities and sets the stage for advancements in research, clinical and policy, that will help us to better understand, assist, and advocate for those affected by fracking.”¹⁴²⁶

- May 1, 2017 – The Southwest Pennsylvania Environmental Health Project established a voluntary public health registry “aimed at tracking and eventually analyzing the impacts of shale gas development on people living near wells, impoundments, compressor stations and pipelines.” According to a spokesperson, “The point is that the vast majority of independent science is looking at [shale gas development] and saying something’s not good there. We need to know more... The findings of this registry will allow the health care community to be more informed about what problems people are experiencing when they walk into their offices. It will give the doctors some idea of what they should be looking for.”¹⁴²⁷
- April 28, 2017 – Portuguese and Brazilian reviewers identified the issue of water resources “as one of the most sensitive to negative impacts by shale gas exploration and exploitation,” in their examination of scientific articles published between 2010 and 2015. They pointed to “expected” new legislation and industry practices for impact reductions but continued on to say that there are “no indications of a solution in the near future” for the problems of wastewater and greenhouse gas emissions.¹⁴²⁸
- February 8, 2017 – Addressing the community health and safety harms linked with camps that house temporary workers in extractive industries, the British Columbia Ministry of Aboriginal Relations and Reconciliation funded a research project carried out in consultation with Indigenous nations. The premise, that “Indigenous women and youth can experience negative impacts of resource extraction at every phase of resource development,” was borne out by the project’s community dialogues and literature review. “Increased domestic violence, sexual assault, substance abuse, and an increased incidence of sexually transmitted infections (STIs) and HIV/AIDS due to rape, prostitution, and sex trafficking are some of the recorded negative impacts of resource extraction projects, specifically as a result of the presence of industrial camps and transient work forces.” The objectives of the project were to stimulate dialogue and to develop detailed protective steps for Nations, government, and industry in advance of the initiation of planned extraction projects in the region, such as the TransCanada and Spectra Energy pipelines,

¹⁴²⁶ Hirsch, J. K., Smalley, K. B., Selby-Nelson, E. M., Hamel-Lambert, J. M., Rosmann, M. R., Barnes, T. A., . . . LaFromboise, T. (2017). Psychosocial impact of fracking: A review of the literature on the mental health consequences of hydraulic fracturing. *International Journal of Mental Health and Addiction*. doi: 10.1007/s11469-017-9792-5

¹⁴²⁷ Hopey, D. (2017, May 1). Registry will study health impact from living near shale gas wells. *Pittsburgh Post-Gazette*. Retrieved from <http://powersource.post-gazette.com/powersource/consumers-powersource/2017/05/01/Registry-will-study-health-impact-from-living-near-shale-gas-wells/stories/201705010018>

¹⁴²⁸ Costa, D., Jesus, J., Branco, D., Danko, A., & Fiúza, A. (2017). Extensive review of shale gas environmental impacts from scientific literature (2010–2015). *Environmental Science and Pollution Research*, 24, 14579–14594. doi: 10.1007/s11356-017-8970-0

in order to prevent violence against women and other life changing negative effects linked to the industrial camps.¹⁴²⁹

- February 8, 2017 – Los Angeles County health officials criticized as insufficient the allocation of only one million dollars by the Southern California Gas Company to fund an independent health study in the aftermath of the massive methane leak at Aliso Canyon that lasted from October 2015 until February 2016. “‘It’s a study, but not a health study,’ said Angelo Bellomo, the Los Angeles County deputy director for health protection. ‘It is not responsive to addressing the health needs and concerns to this community. More importantly, it’s inconsistent with advice given to [South Coast Air Quality Management District] by health officials.’” Health experts from across the state had suggested a design “that was comprehensive and larger in scope as well as consistent with a state Senate bill introduced last year that estimated such a design would cost \$13 million in the first three years, and up to \$40 million to complete.”¹⁴³⁰
- January 19, 2017 – An epidemiologist at Brown University reviewed studies to date on health outcomes in communities living close to unconventional natural gas development, and identified areas requiring further study. “Future epidemiologic studies should implement personal exposure assessments to examine associations between individual contaminants and relevant health outcomes, particularly to explain associations seen with respiratory and birth outcomes,” the author concluded.¹⁴³¹
- December 5, 2016 – A team of British scientists wrote a 156-paper review on the risks and harms of fracking that attempts to “capture, review and interpret the published literature across all the accepted domains of public health in a systematic way and consider specific implications for the UK.” They concluded that shale gas fracking “unequivocally presents an exposure hazard,” and that further studies were needed to address exposure and health outcome data, noting the lack of before, during, and after exposure data for both air and water around drilling and fracking sites. Authors also noted that the claims that shale gas is less harmful to the climate than coal are not backed by lifecycle analyses. This team called for more research and a delay on any proposed drilling and fracking activity in the United Kingdom.¹⁴³²

¹⁴²⁹ Gibson, G., Yung, K., Chisholm, L., & Quinn, H., with Lake Babine Nation and Nak’azdli Whut’en. (2017). *Indigenous Communities and Industrial Camps: Promoting healthy communities in settings of industrial change*. Retrieved from http://www.thefirelightgroup.com/thoushallnotpass/wp-content/uploads/2016/03/Firelight-work-camps-Feb-8-2017_FINAL.pdf

¹⁴³⁰ Gazzar, B., & Abram, S. (2017, February 8). \$1 million health study ‘shortchanges’ Porter Ranch gas leak victims, critics say. *Los Angeles Daily News*. Retrieved from <https://www.dailynews.com/2017/02/08/1-million-health-study-shortchanges-porter-ranch-gas-leak-victims-critics-say/>

¹⁴³¹ Stacy, S. L. (2017). A review of the human health impacts of unconventional natural gas development. *Current Epidemiology Reports*, 4, 38–45. doi: 10.1007/s40471-017-0097-9

¹⁴³² Saunders, P.J., McCoy, D., Goldstein, R., Saunders, A. T., & Munroe, A. (2018). A review of the public health impacts of unconventional natural gas development. *Environmental Geochemistry and Health*, 40(1), 1-57. Advance online publication. doi: 10.1007/s10653-016-9898-x

- November 1, 2016 – The government of Scotland released a health impact assessment that reconfirmed the evidence for potential contamination of air and water, threats to worker health from silica dust exposure, and risks to the health of nearby residents.¹⁴³³
- October 23, 2016 – In a unanimous vote of the society’s 300-member House of Delegates, the Pennsylvania Medical Society called for a moratorium on new shale gas drilling and fracking in Pennsylvania and an initiation of a health registry in communities with pre-existing operations.^{1434, 1435}
- October 11, 2016 – A group of health care professionals in Massachusetts called for an immediate moratorium on major new natural gas infrastructure until the impact of these projects on the health of the communities affected can be adequately determined through a Comprehensive Health Impact Assessment.¹⁴³⁶ The group noted that the operation of natural gas facilities risks human exposures to toxic, cancer-causing, and radioactive pollution due to the presence of naturally co-occurring contaminants, toxic additives to the hydraulic fracturing process, and through the operation of transmission pipelines.¹⁴³⁷
- September 15, 2016 – A systematic review of 45 studies, primarily but not exclusively addressing conventional oil and gas activities, showed an emerging body of evidence documenting harm to reproductive health from residential and occupational exposure to these operations. The strongest evidence existed for increased risk of miscarriage, prostate cancer, birth defects, and decreased semen quality. Authors state that there is “ample evidence for disruption of the estrogen, androgen, and progesterone receptors with individual chemicals and waste products related to oil and gas extraction,” and “impacts from unconventional oil and gas activities will likely be greater, given that unconventional activities have many similarities to conventional ones and employ dozens of endocrine-disrupting chemicals in the process of hydraulic fracturing.”¹⁴³⁸
- September 14, 2016 – In a commentary about fracking in the *American Journal of Public Health*, Weill Cornell Medicine physicians wrote, “mounting empirical evidence shows harm to the environment and to human health . . . and we have no idea what the long-

¹⁴³³ Health Protection Scotland. (2016). *A health impact assessment of unconventional oil and gas in Scotland, Vol. I*. Retrieved from <http://www.hps.scot.nhs.uk/resource/document.aspx?resourceid=3102>

¹⁴³⁴ Pennsylvania Medical Society (2016, October 23). Resolution 16-206: Pennsylvania Medical Society support for a moratorium on fracking. Retrieved from https://www.pamedsociety.org/PAMED_Downloads/HODAEC/16-206.pdf

¹⁴³⁵ Hopey, D. (2016, October 28). Doctors call for a state ban on drilling and fracking. *Pittsburgh Post-Gazette*. Retrieved from <http://www.post-gazette.com/local/region/2016/10/27/Doctors-group-calls-for-moratorium-on-fracking-in-Pennsylvania/stories/201610270226>

¹⁴³⁶ Massachusetts Health Care Professionals Against Fracked Gas (2016, October). Call for a moratorium on natural gas projects undergoing construction or review in the Commonwealth of Massachusetts. Retrieved from <http://mhcpafg.org/>

¹⁴³⁷ Massachusetts Health Care Professionals Against Fracked Gas. (2016, February 20). The role of comprehensive health impact assessment in evaluating natural gas infrastructure proposals in Massachusetts. Retrieved from <http://mhcpafg.org/>

¹⁴³⁸ Balise, V. D., Meng, C-X., Cornelius-Green, J. N., Kassotis, C. D., Kennedy, R., & Nagel, S. C. (2016). Systematic review of the association between oil and natural gas extraction processes and human reproduction. *Fertility and Sterility*, 106(4). doi: 10.1016/j.fertnstert.2016.07.1099

term effects might be. . . . Ignoring the body of evidence, to us, is not a viable option anymore.”¹⁴³⁹

- July 7, 2016 –The UK health professional organization Medact released an updated assessment of the potential health impacts of shale fracking in England that confirm the findings of its 2015 report, *Health and Fracking*. The new report, *Shale Gas Production in England*, concluded, “Our view that the UK should abandon its policy to encourage [shale gas production] remains unchanged.” The new report included hundreds of new academic papers addressing impacts on air and water quality, health, climate change, social wellbeing, economics, noise and light pollution, and seismic events. Still, authors wrote, “the absence of an independent social, health and economic impact assessment of [shale gas production] at scale is a glaring omission. Given the availability of alternative sources of energy, these are grounds for placing an indefinite moratorium on SGP (a position adopted by many jurisdictions across the world) until such time that there is greater clarity and certainty about the relative harms and benefits of shale gas.”¹⁴⁴⁰
- May 31, 2016 – “There are too many science, technology and risk-assessment gaps to green-light fracking in western Newfoundland,” according to a panel that studied the question. In an interview with Canada’s *Globe and Mail*, panel leader and engineering professor Ray Gosine said, “The science, the studies that have been done, have been somewhat limited – certainly limited compared to what we’d expect to have done in order to plan this kind of operation. . . . There are a number of gaps and deficiencies that are significant.”¹⁴⁴¹
- May 13, 2016 – Physicians for Social Responsibility called for a ban on hydraulic fracturing, pointing both to the irremediable climate harm caused by methane emissions as well to the multiple health risks from industrial-scale water consumption, air pollution, seismic effects, the generation of large quantities of toxic liquid waste, and long-term impacts on drinking water aquifers. “We cannot stay healthy in an unhealthy environment. Nor can we survive indefinitely on a planet growing hotter and more prone to extreme, unpredictable and destructive weather. These factors impel PSR to call for a ban on fracking and for a rapid transition to cleaner, healthier, carbon-free sources of energy.”¹⁴⁴²
- March 27, 2016 – Noting that many chemicals used in fracking fluids are known or suspected endocrine disruptors, a group of public health researchers called for an endocrine-centric component for health assessments in areas impacted by oil and gas operations. The team outlined a series of recommendations to assess the “potential

¹⁴³⁹ Finkel, M. L., & Law, A. (2016). The rush to drill for natural gas: a five-year update. *American Journal of Public Health, 106*(10). doi: 10.2105/AJPH.2016.303398

¹⁴⁴⁰ McCoy, D. & Munro, A. (2016). *Shale gas production in England: An updated public health assessment*. Retrieved from http://www.medact.org/wp/wp-content/uploads/2016/07/medact_shale-gas_WEB.pdf

¹⁴⁴¹ Bailey, S. (2016, May 31). Too many gaps to recommend fracking in Newfoundland: Panel. *Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/too-many-unknowns-to-recommend-fracking-in-western-newfoundland-panel/article30216746/>

¹⁴⁴² Physicians for Social Responsibility (2016, May 13). PSR position statement calling for a ban on hydraulic fracturing. Retrieved from <http://www.psr.org/assets/pdfs/psr-fracking-policy.pdf>

endocrine-related risks from chemical exposures associated with oil and natural gas operations. We present these recommendations in light of the growing body of information regarding both chemical concentrations in the environment and adverse health outcomes reported in humans and wildlife.”¹⁴⁴³

- January 6, 2016 – A Yale University team of epidemiologists called for a systematic evaluation of chemicals in fracking fluid and wastewater for reproductive and development toxicity. While basic toxicity information is lacking for more than three-quarters of the more than 1,000 chemicals known to be used in fracking fluid, many of the remainder, the authors note, are linked to reproductive and developmental harm. “Therefore, carefully designed, rigorous exposure, and epidemiologic studies are urgently needed to investigate public health uncertainties... The 67 chemicals we identified as possibly associated with either reproductive or developmental toxicity with a current or proposed federal drinking water standard or health-based guideline represent a feasible starting point for evaluation in future drinking water exposure studies or human health studies....”¹⁴⁴⁴
- November 24, 2015 – A Harvard University team identified a trend toward increasing chemical secrecy and less transparency by examining 96,000 chemical disclosure forms filed by fracking companies between March 2011 and April 2015. These forms were submitted to the Fracfocus website, a chemical disclosure portal for the fracking industry that operates on a voluntary basis but for which reporting is mandated in more than 20 states. Fracfocus is the largest public database on chemicals used in U.S. fracking operations.¹⁴⁴⁵ Companies involved in fracking withheld chemical data at significantly higher rates in 2015 (16.5 percent) as compared to 2011-2013 (11 percent). The research team also found that withholding drops by a factor of four when companies report aggregate data without attribution to the specific products in the fracking fluid. The authors called for state governments to retain authority in requiring disclosure of “product-specific ingredient lists.”¹⁴⁴⁶
- August 7, 2015 – While acknowledging the “dramatic increase in the number of peer-reviewed published studies” on environmental and health impacts of fracking, Weill Cornell Medical College’s Dr. Madelon Finkel and co-author PSE Healthy Energy’s Jake Hays called for more well-designed longer-term epidemiologic studies to quantify the connections between fracking-related risk factors and health outcomes. Without such studies it is challenging to capture, for example, outcomes such as cancer that take many

¹⁴⁴³ Kassotis, C. D., Tillitt, D. E., Lin, C-H., Mcelroy, J. A., & Nagel, S. (2016). Endocrine-disrupting chemicals and oil and natural gas operations: Potential environmental contamination and recommendations to assess complex environmental mixtures. *Environmental Health Perspectives*, 124(3). doi: 10.1289/ehp.1409535

¹⁴⁴⁴ Elliot, E. G., Ettinger, A. S., Leaderer, B. P., Bracken, M. B., & Deziel, N. C. (2016). A systematic evaluation of chemicals in hydraulic-fracturing fluids and wastewater for reproductive and developmental toxicity. *Journal of Exposure Science and Environmental Epidemiology*. Advance online publication. doi: 10.1038/jes.2015.81

¹⁴⁴⁵ Song, L. (2015, Nov. 24). What chemicals are used in fracking? Industry discloses less and less. *InsideClimate News*. Retrieved from <https://insideclimatenews.org/news/24112015/fracking-natural-gas-drilling-chemicals-frac-focus-study>

¹⁴⁴⁶ Konschnik, K., & Dayalu, A. (2016). Hydraulic fracturing chemicals reporting: Analysis of available data and recommendations for policymakers. *Energy Policy*, 88. doi: 10.1016/j.enpol.2015.11.002

years to present. The authors described several important studies that are currently underway that will add to the body of knowledge in the future.¹⁴⁴⁷

- June 9, 2015 – Information on individual exposures and local environmental conditions prior to the commencement of fracking in a given area is often “unavailable or hard to obtain. These and other data gaps have hindered the kind of large-scale epidemiological studies that can link exposures to actual health outcomes, with valid comparison groups,” wrote public health journalist David Tuller in the journal *Health Affairs*.¹⁴⁴⁸ In an interview with *Michigan Radio*, Tuller noted that, because well development happens quickly, there was generally a lack of pre-drilling baseline studies.¹⁴⁴⁹
- April 17, 2015 – Using sophisticated Geographic Information Systems (GIS) tools to examine distribution of fracking wells compared to distribution of vulnerable populations, Clark University researchers found consistent evidence that, in the Pennsylvania Marcellus Shale region, census tracts with potential exposure to pollution from fracking wells contained “significantly higher” percentages of poor people. They also found clusters of vulnerable populations concentrated near drilling and fracking in all three states they studied: Pennsylvania (for poverty and elderly population), West Virginia (for poverty, elderly population, and education level) and Ohio (for children). Researchers also reported difficulty in accessing high quality and consistent unconventional well data in all three states, demonstrating an “urgent need” for common data collection and reporting.¹⁴⁵⁰ Another GIS-based study sought to begin to fill this gap in data on spatially distributed risks of fracking, identifying Pennsylvania populations at “very high” and “high” risk in over a dozen counties. The author called for more focus on those areas to understand the impacts of fracking.¹⁴⁵¹
- March 30, 2015 – The UK medical organization Medact published a report, *Health & Fracking: The Impacts and Opportunity Costs*, which concluded that fracking poses significant risks to public health and called for an immediate moratorium to allow time for a full and comprehensive health and environmental impact assessment to be completed.¹⁴⁵² The report was supported by a letter published in the *British Medical Journal* calling for shale gas development to be put on hold, signed by the Climate and Health Council and over a dozen senior health professionals. The letter stated, “The arguments against fracking on public health and ecological grounds are overwhelming.

¹⁴⁴⁷ Finkel, M. L. & Hays, J. (2015). Environmental and health impacts of ‘fracking’: Why epidemiological studies are necessary. *Journal of Epidemiology and Community Health*. Advance online publication. doi: 10.1136/jech-2015-205487

¹⁴⁴⁸ Tuller, D. (2015). As fracking booms, dearth of health risk data remains. *Health Affairs*, 34 (6), 903-906.

¹⁴⁴⁹ Williams, R. (June 9, 2015). Why there are gaps in public health studies on fracking. *Michigan Radio*. Retrieved from <http://michiganradio.org/post/why-there-are-gaps-public-health-studies-fracking#stream/0>

¹⁴⁵⁰ Ogneva-Himmelberger, Y., & Huang, L. (2015). Spatial distribution of unconventional gas wells and human populations in the Marcellus Shale in the United States: Vulnerability analysis. *Applied Geography*, 60. 165-174.

¹⁴⁵¹ Meng, Q. (2015). Spatial analysis of environment and population at risk of natural gas fracking in the state of Pennsylvania, USA. *Science of the Total Environment*, 515-516. 198-206.

¹⁴⁵² Medact. (2015). *Health & fracking: The impacts and opportunity costs*. London: McCoy, D. & Saunders, P.

There are clear grounds for adopting the precautionary principle and prohibiting fracking.”¹⁴⁵³

- February 17, 2015 – Writing in the *Canadian Medical Association Journal*, a public health scientist and medical doctor briefly reviewed the human health risks of fracking documented to date and made the case for a health care worker role in insisting on improved understanding. They cited worker and community safety issues as the biggest short-term risks, but emphasized that more needs to be known “before health care providers can definitively respond to their patients’ and communities’ concerns.... Physicians may wish to advocate delaying new development activities until the potential health effects are better understood.”¹⁴⁵⁴
- January 22, 2015 –The acting head of research at the Cancer Association of South Africa, Carl Albrecht, said that known carcinogenic chemicals used in fracking could lead to an epidemic of cancer in South Africa’s Karoo desert. As South Africa was poised to publish draft regulations, Albrecht said that the effect of fracking on human health was ignored.¹⁴⁵⁵
- January 19, 2015 – In an article that reviewed research and research gaps, a team of British and U.S. medical and scientific professionals urged the United Kingdom and other nations to engage in science before engaging in fracking. They warned that even strong regulations may not effectively address air pollution from fracking, and that “permanent, adverse environmental, climatic, and population health impacts” may exist in some cases.¹⁴⁵⁶
- December 17, 2014 – In an editorial, Rutgers University environmental exposure expert Paul J. Liroy (now deceased) highlighted fracking as an area in which accurate exposure monitoring and risk assessment did not yet exist. Liroy emphasized that the relevant research was compartmentalized and fragmented and that exposures and health outcomes around unconventional natural gas development need to be systematically addressed through “well-defined exposure studies in communities and workplaces.”¹⁴⁵⁷
- December 5, 2014 – A team of medical and scientific researchers, including from the Institute for Health and Environment at the State University of New York (SUNY) at

¹⁴⁵³ Stott, R., Atkinson, S., Montgomery, H., Rao, M., McKee, M., Gerada, C., . . . Popay, J. (2014). Public Health England’s draft report on shale gas extraction. *BMJ*, 348. Retrieved from <http://www.bmj.com/content/348/bmj.g2728/rr>

¹⁴⁵⁴ Bharadwaj, L. & Goldstein, B. D. (2015). Shale gas development in Canada: What are the potential health effects? *CMAJ*, 187(3), E99-E100.

¹⁴⁵⁵ Vecchiato, P. (January 22, 2015). Chemicals used in fracking ‘could cause cancer.’ *Business Day BDLive*. Retrieved from <http://www.bdlive.co.za/business/energy/2015/01/22/chemicals-used-in-fracking-could-cause-cancer>

¹⁴⁵⁶ Hays, J., Finkel, M. L., Depledge, M., Law, A., & Shonkoff, S. B. C. (2015). Considerations for the development of shale gas in the United Kingdom. *Science of the Total Environment*, 512–513, 36–42. doi: 10.1016/j.scitotenv.2015.01.004

¹⁴⁵⁷ Liroy, P.J. (2015). Exposure science and its places in environmental health sciences and risk assessment: Why is its application still an ongoing struggle in 2014? *Journal of Exposure Science and Environmental Epidemiology*, 25, 1-3. doi: 10.1038/jes.2014.59

Albany, reviewed the scientific evidence that both adult and early life—including prenatal—exposure to chemicals from fracking operations can result in adverse reproductive health and developmental effects. These include: endocrine-disrupting chemicals potentially increasing risk for reproductive problems, breast cancer, abnormal growth and developmental delays, and changes in immune function; benzene, toluene and xylene (BTX chemicals) increasing risk for impaired sperm quantity and quality in men and menstrual and fertility problems in women; and heavy metals increasing the risk of miscarriage and/or stillbirths. Potential exposures occur through both air and water. Based on their review, the authors concluded, “Taken together, there is an urgent need for the following: 1) biomonitoring of human, domestic and wild animals for these chemicals; and 2) systematic and comprehensive epidemiological studies to examine the potential for human harm.”¹⁴⁵⁸ Lead author Susan Nagel said in an accompanying interview, “We desperately need biomonitoring data from these people. What are people actually exposed to? What are the blood levels of people living in these areas? What are the levels in the workers?”¹⁴⁵⁹

- November 12, 2014 – A team of Australian researchers reviewed the strength of evidence for environmental health impacts of fracking based on publications from 1995 to 2014. They noted that the rapid expansion of fracking had outstripped the pace of science and that most studies focused on short-term, rather than long-term, health. Hence, “very few studies examined health outcomes with longer latencies such as cancer or developmental outcomes.” Noting that no evidence exists to rule out health impacts, the team called for direct and clear public health assessments before projects are approved, longitudinal studies that include baseline data, and government and industry transparency.¹⁴⁶⁰
- September 15, 2014 – Researchers led by University of Rochester’s Environmental Health Sciences Center conducted interviews in New York, North Carolina, and Ohio to evaluate community health concerns about unconventional natural gas development. They identified many areas where more study is needed, including baseline measures of air quality, ongoing environmental monitoring, and health impact assessments. They noted that other areas where data are lacking involve the assessment of drilling and fracking impacts on vulnerable populations such as very young children, and the potential consequences of interactions between exposures resulting from shale gas extraction operations. Researchers suggested incorporating the input of potentially affected community members into the development of the research agenda.¹⁴⁶¹

¹⁴⁵⁸ Webb, E., Bushkin-Bedient, S., Cheng, A., Kassotis, C. D., Balise, V., & Nagel, S. C. (2014). Developmental and reproductive effects of chemicals associated with unconventional oil and natural gas operations. *Reviews on Environmental Health*, 29(4), 307-318. doi: 10.1515/reveh-2014-0057

¹⁴⁵⁹ Sample, I. (2014, December 5). Fracking chemicals could pose risks to reproductive health, say researchers. *Guardian*. Retrieved from <http://www.theguardian.com/environment/2014/dec/05/fracking-chemicals-could-pose-risks-to-reproductive-health-say-researchers>

¹⁴⁶⁰ Werner, A.K., Vink, S., Watt, K., & Jagals, P. (2015). Environmental health impacts of unconventional natural gas development: A review of the current strength of evidence. *Science of the Total Environment*, 505, 1127–1141. doi: 10.1016/j.scitotenv.2014.10.084

¹⁴⁶¹ Korfmacher, K. S., Gray, K. M., & Haynes, E. (2014, September 15). Health impacts of unconventional natural gas development: A comparative assessment of community information needs in New York, North Carolina, and Ohio. *Project Report, UR-UNC-UC Supplement 2012-13*. Retrieved from

- July 21, 2014 – An independent assessment report by Scientists for Global Responsibility and the Chartered Institute of Environmental Health reviewed current evidence across a number of issues associated with shale gas extraction by hydraulic fracturing, including environmental and public health risks, drawing on academic research. Among the report’s conclusions: there are major shortcomings in regulatory oversight regarding local environmental and public health risks; there is a large potential for UK shale gas exploitation to undermine national and international efforts to tackle climate change; the water-intensive nature of the fracking process which could cause water shortages in many areas; the complete lack of evidence behind claims that shale gas exploitation will bring down UK energy bills; and concerns that it will impact negatively on UK energy security. Despite claims to the contrary, the report noted that evidence of local environmental contamination from shale gas exploitation is well reported in the scientific literature. It emphasizes that, “[t]here are widespread concerns over the lack of evidence on fracking-related health impacts,” and that there is a lack of “substantive epidemiological study for populations exposed to shale gas extraction.”¹⁴⁶²
- July 18, 2014 – A working group of the Environmental Health Sciences Core Centers, supported by the National Institute of Environmental Health Sciences, reviewed the available literature on the potential health impacts of fracking for natural gas. They concluded that further research is urgently needed. Needs identified included: monitoring of air and water quality over the entire lifetime of wells; further epidemiologic research addressing health outcomes and water quality; and research addressing whether air pollution associated with fracking increases the risk of pulmonary and cardiovascular disease. The working group advocated for the participation of potentially affected communities in all areas of research.¹⁴⁶³
- July 12, 2014 – Eli Avila, Pennsylvania’s former Secretary of Health, said that health officials need to be proactive in protecting the public from the health effects of unconventional shale gas extraction. In 2011, funding was approved for a Pennsylvania public health registry to track drilling related complaints and address concerns, but was cut at the last minute. Speaking to the problem posed by the dearth of information, Avila asked, “How can you keep the public safe if you’re not collecting data?”¹⁴⁶⁴
- June 30, 2014 – The immediate past chair of the Executive Committee of the Council on Environmental Health for the American Academy of Pediatrics, Jerome A. Paulson, MD,

<http://www.urmc.rochester.edu/MediaLibraries/URMCMedia/environmental-health-sciences-center/COEC/documents/UNGD-information-needs-assessment-Final-project-report-091514.pdf>

¹⁴⁶² Harrison, G., Parkinson, S., & McFarlane, G. (2014). Shale gas and fracking: examining the evidence. Published by Scientists for Global Responsibility (SGR) and the Chartered Institute of Environmental Health (CIEH). Retrieved from <http://www.cieh.org/WorkArea/showcontent.aspx?id=53520>

¹⁴⁶³ Penning, T. M., Breysse, P.N., Gray, K., Howarth, M., & Yan, B. (2014). Environmental health research recommendations from the Inter-Environmental Health Sciences Core Center Working Group on Unconventional Natural Gas Drilling Operations. *Environmental Health Perspectives*, 122(11), 1155-1159. doi: 10.1289/ehp.1408207

¹⁴⁶⁴ Associated Press. (2014, July 12). Expert: Pa. didn’t address fracking health impacts. *York Dispatch*. Retrieved from http://www.yorkdispatch.com/ci_26135724/expert-pa-didnt-address-fracking-health-impacts

called for industry disclosure of all ingredients of fracking fluid; thorough study of all air contaminants released from drilling and fracking operations and their protected dispersal patterns; and study and disclosure of fracking-related water contamination and its mechanisms. In a letter to the Pennsylvania Department of Environmental Protection (PA DEP), Paulson said:

In summary, neither the industry, nor government agencies, nor other researchers have ever documented that [unconventional gas extraction] can be performed in a manner that minimizes risks to human health. There is now some evidence that these risks that many have been concerned about for a number of years are real risks. There is also much data to indicate that there are a number of toxic chemicals used or derived from the process, known or plausible routes of exposure of those chemicals to humans; and therefore, reason to place extreme limits on [unconventional gas extraction].¹⁴⁶⁵

- June 20, 2014 – Highlighting preliminary studies in the United States that suggest an increased risk of adverse health problems among individuals living within ten miles of shale gas operations, a commentary in the British medical journal *The Lancet* called for a precautionary approach to gas drilling in the United Kingdom. According to the commentary, “It may be irresponsible to consider any further fracking in the UK (exploratory or otherwise) until these prospective studies have been completed and the health impacts of fracking have been determined.”¹⁴⁶⁶
- June 20, 2014 – Led by an occupational and environmental medicine physician, a Pennsylvania-based medical and environmental science research team documented “... the substantial concern about adverse health effects of [unconventional natural gas development] among Pennsylvania Marcellus Shale residents, and that these concerns may not be adequately represented in medical records.” The teams identified the continued need to pursue environmental, clinical, and epidemiological studies to better understand associations between fracking, medical outcomes, and residents’ ongoing concerns.¹⁴⁶⁷
- June 17, 2014 – A discussion paper by the Nova Scotia Deputy Chief Medical Officer and a panel of experts identified potential economic benefits as well as public health concerns from unconventional oil and gas development. On the health impacts, they wrote, “uncertainties around long term environmental effects, particularly those related to climate change and its impact on the health of both current and future generations, are considerable and should inform government decision making.” The report noted potential dangers including contamination of groundwater, air pollution, surface spills, increased

¹⁴⁶⁵ Paulson, J.A. (2014, June 30). Letter to the Pennsylvania Department of Environmental Protection. Retrieved from <http://concernedhealthny.org/letter-from-dr-jerome-a-paulson-to-the-pennsylvania-department-of-environmental-protection/>

¹⁴⁶⁶ Hill, M. (2014, June 20). Shale gas regulation in the UK and health implications of fracking. *The Lancet*. Advance online publication. doi: 10.1016/S0140-6736(14)60888-6

¹⁴⁶⁷ Saberi, P., Propert, K. J., Powers, M. Emmett, E., & Green-McKenzie, J. (2014). Field survey of health perception and complaints of Pennsylvania residents in the Marcellus Shale region. *International Journal of Environmental Research and Public Health*, 11(6), 6517-6527. doi: 10.3390/ijerph110606517

truck traffic, noise pollution, occupational health hazards, and the generation of greenhouse gases. It also noted that proximity of potential fracking sites to human habitation should give regulators pause and called for a health impact assessment and study of long-term impacts.¹⁴⁶⁸ Responding to the report, the Environmental Health Association of Nova Scotia applauded the go-slow approach and called for a 10-year moratorium on fracking.¹⁴⁶⁹

- May 29, 2014 – In New York State, more than 250 medical organizations and health professionals released a letter detailing emerging trends in the data on fracking that show significant risk to public health, air quality, and water, as well as other impacts. With signatories including the American Academy of Pediatrics, District II, the American Lung Association in New York, Physicians for Social Responsibility, and many leading researchers examining the impacts of fracking, they wrote, “The totality of the science — which now encompasses hundreds of peer-reviewed studies and hundreds of additional reports and case examples—shows that permitting fracking in New York would pose significant threats to the air, water, health and safety of New Yorkers.”^{1470, 1471}
- May 9, 2014 – In a peer-reviewed analysis, leading toxicologists outlined some of the potential harm and uncertainty relating to the toxicity of the chemical and physical agents associated with fracking, individually and in combination. While acknowledging the need for more research and greater involvement of toxicologists, they noted the potential for surface and groundwater contamination from fracking, growing concerns about air pollution particularly in the aggregate, and occupational exposures that pose a series of potential hazards to worker health.^{1472, 1473}
- May 1, 2014 – A 292-page report from a panel of top Canadian scientists urged caution on fracking, noting that it poses “the possibility of major adverse impacts on people and ecosystems” and that significantly more study is necessary to understand the full extent of the risks and impacts.¹⁴⁷⁴ The *Financial Post* reported that the panel of experts “found

¹⁴⁶⁸ Atherton, F. (2014, June 17). *Discussion paper: Hydraulic fracturing and public health in Nova Scotia*. Nova Scotia Hydraulic Fracturing Independent Review and Public Engagement Process.

¹⁴⁶⁹ Macdonald, M. (2014, June 17). Nova Scotia expert calls for go-slow approach for hydraulic fracturing. *The Canadian Press*. Retrieved from <http://www.calgaryherald.com/health/Health+studies+needed+hydraulic+fracturing+approved+Nova+Scotia/9946368/story.html>

¹⁴⁷⁰ Concerned Health Professionals of New York. (2014, May 29). Letter to Governor Cuomo and Acting Health Commissioner Howard A. Zucker. Retrieved from <http://concernedhealthny.org/letters-to-governor-cuomo/>

¹⁴⁷¹ Hughes, K. (2014, May 29). NY fracking opponents call for moratorium of 3 to 5 years. *Daily Freeman*. Retrieved from <http://www.dailyfreeman.com/general-news/20140529/ny-fracking-opponents-call-for-moratorium-of-3-to-5-years>

¹⁴⁷² Society of Toxicology. (2014). Toxicologists outline key health and environmental concerns associated with hydraulic fracturing. *ScienceDaily*. Retrieved from <http://www.sciencedaily.com/releases/2014/05/140509172545.htm>

¹⁴⁷³ Goldstein, B. D., Brooks, B. W., Cohen, S. D., Gates, A. E., Honeycutt, M. E., Morris, J. B., . . . Snawder, J. (2014). The role of toxicological science in meeting the challenges and opportunities of hydraulic fracturing [Abstract]. *Toxicological Sciences*, 139(2). doi: 10.1093/toxsci/kfu061

¹⁴⁷⁴ The Expert Panel on Harnessing Science and Technology to Understand the Environmental Impacts of Shale Gas Extraction. (2014). Environmental impacts of Hurricane Mitch. *Council of Canadian Academies*. Retrieved from

significant uncertainty on the risks to the environment and human health, which include possible contamination of ground water as well as exposure to poorly understood combinations of chemicals.”¹⁴⁷⁵

- April 30, 2014 – Medical professionals spoke out on the dearth of public health information collected and lack of long-term study five years into Pennsylvania’s fracking boom. Walter Tsou, MD, MPH, past president of the American Public Health Association and former Health Commissioner of Philadelphia commented, “That kind of study from a rigorous scientific perspective has never been done.” Other experts added, “There has been more health research involving fracking in recent years, but every study seems to consider a different aspect, and ... there is no coordination.”¹⁴⁷⁶
- April 17, 2014 – In the preeminent *British Medical Journal*, authors of a commentary, including an endocrinologist and a professor of clinical public health, wrote, “Rigorous, quantitative epidemiological research is needed to assess the risks to public health, and data are just starting to emerge. As investigations of shale gas extraction in the US have continually suggested, assurances of safety are no proxy for adequate protection.”¹⁴⁷⁷
- April 15, 2014 – The *Canadian Medical Association Journal* reported on the increasing legitimacy of concerns about fracking on health: “While scientists and area residents have been sounding the alarm about the health impacts of shale gas drilling for years, recent studies, a legal decision and public health advocates are bringing greater legitimacy to concerns.”¹⁴⁷⁸
- March 3, 2014 – In the *Medical Journal of Australia*, researchers and a physician published a strongly worded statement, “Harms unknown: health uncertainties cast doubt on the role of unconventional gas in Australia’s energy future.” They cited knowledge to date on air, water, and soil pollution, and expressed concern about “environmental, social and psychological factors that have more indirect effects on health, and important social justice implications” yet to be understood. They wrote in summary:

The uncertainties surrounding the health implications of unconventional gas, when considered together with doubts surrounding its greenhouse gas profile and cost, weigh heavily against proceeding with proposed future developments. While the health effects associated with fracturing chemicals have attracted considerable

http://www.scienceadvice.ca/uploads/eng/assessments%20and%20publications%20and%20news%20releases/shale%20gas/shalegas_fullreporten.pdf

¹⁴⁷⁵ Canadian Press. (2014, May 1). Top Canadian scientists urge cautious approach to fracking until more known of impact. *Financial Post*. Retrieved from http://business.financialpost.com/2014/05/01/top-canadian-scientists-urge-cautious-approach-to-fracking-until-more-known-of-impact/?__lsa=3b44-76a1

¹⁴⁷⁶ Khan, N. (2014, April 30). Health impact of gas fracking left in the dark. *Pocono Record*. Retrieved from <http://www.poconorecord.com/apps/pbcs.dll/article?AID=/20140430/NEWS90/404300301/-1/NEWS01>

¹⁴⁷⁷ Law, A., Hays, J., Shonkoff, S. B., & Finkel, M. L. (2014). Public Health England’s draft report on shale gas extraction [Abstract]. *BMJ*, *1840*. doi: <http://dx.doi.org/10.1136/bmj.g2728>

¹⁴⁷⁸ Glauser, W. (2014). New legitimacy to concerns about fracking and health. *Canadian Medical Association Journal*, *186*(8), E245-E246. doi: 10.1503/cmaj.109-4725

public attention, risks posed by wastewater, community disruption and the interaction between exposures are of also of concern.¹⁴⁷⁹

- March 1, 2014 – In the prestigious British medical journal *The Lancet*, researchers summarized workshops and research about the health impacts of fracking, noting that the scientific study on the health impacts of fracking is “in its infancy.” Nevertheless, the existing evidence suggests, said these researchers, that health risks posed by fracking exceed those posed by conventional oil and gas wells due to the sheer number and density of well pads being developed, their proximity to densely populated areas, and the need to transport and store large volumes of materials.¹⁴⁸⁰
- February 24, 2014 – In a review of the health effects of unconventional natural gas extraction published in the journal *Environmental Science & Technology*, leading researchers identified a range of impacts and exposure pathways that can be detrimental to human health. Noting how fracking disrupts communities, the review states, “For communities near development and production sites the major stressors are air pollutants, ground and surface water contamination, truck traffic and noise pollution, accidents and malfunctions, and psychosocial stress associated with community change.” They concluded, “Overall, the current scientific literature suggests that there are both substantial public concerns and major uncertainties to address.”¹⁴⁸¹
- August 30, 2013 – A summary of a 2012 workshop by the Institute of Medicine Roundtable on Environmental Health Sciences, Research, and Medicine featured various experts who discussed health and environmental concerns about fracking and the need for more research. The report in summary of the workshop stated, “The governmental public health system, which retains primary responsibility for health, was not an early participant in discussions about shale gas extraction; thus public health is lacking critical information about environmental health impacts of these technologies and is limited in its ability to address concerns raised by regulators at the federal and state levels, communities, and workers employed in the shale gas extraction industry.”¹⁴⁸²
- June 2013 – A group of three nursing professors published a cautionary review questioning the rollout of new shale-based energy practices at a time when, “anecdotal reports make clear that the removal of fossil fuels from the earth directly affects human health.” Although the results of longterm studies are not yet available, the authors point to emerging evidence for negative human and ecologic health effects of fracking.

¹⁴⁷⁹ Coram, A., Moss, J., & Blashki, G. (2014). Harms unknown: Health uncertainties cast doubt on the role of unconventional gas in Australia's energy future. *The Medical Journal of Australia*, 200(4), 210-213. doi: 10.5694/mja13.11023

¹⁴⁸⁰ Kovats, S., Depledge, M., Haines, A., Fleming, L. E., Wilkinson, P., Shonkoff, S. B., & Scovronick, N. (2014). The health implications of fracking. *The Lancet*, 383(9919), 757-758. doi: 10.1016/S0140-6736(13)62700-2

¹⁴⁸¹ Adgate, J. L., Goldstein, B. D., & McKenzie, L. M. (2014). Potential public health hazards, exposures and health effects from unconventional natural gas development [Abstract]. *Environmental Science & Technology*. doi: 10.1021/es404621d

¹⁴⁸² Coussens, C., & Martinez, R. (2013). *Health impact assessment of shale gas extraction: workshop summary*. Washington: The National Academies Press. Retrieved from <http://www.iom.edu/Reports/2013/Health-Impact-Assessment-of-Shale-Gas-Extraction.aspx>

Furthermore, they continue, “sufficient evidence has been presented to the [American Nurses Association], the American Public Health Association, and the American Medical Association’s Resident and Fellow Section to result in a call for a moratorium on the issuance of new fracking permits nationally.” They urge nurses to contribute to keeping health issues “front and center as we address national energy needs and policies.”¹⁴⁸³

- April 22, 2013 – In one of the first peer-reviewed nursing articles summarizing the known health and community risks of fracking, Professor Margaret Rafferty, Chair of the Department of Nursing at New York City College of Technology wrote, “Any initiation or further expansion of unconventional gas drilling must be preceded by a comprehensive Health Impact Assessment (HIA).”¹⁴⁸⁴
- May 10, 2011 – In the *American Journal of Public Health*, two medical experts cautioned that fracking “poses a threat to the environment and to the public's health. There is evidence that many of the chemicals used in fracking can damage the lungs, liver, kidneys, blood, and brain.” The authors urged that it would be prudent to invoke the precautionary principle in order to protect public health and the environment.¹⁴⁸⁵

¹⁴⁸³ McDermott-Levy, R., Kaktins, N., & Sattler, B. (2013). Fracking, the environment, and health: New energy practices may threaten public health. *American Journal of Nursing*, 113(6), 45-51.

¹⁴⁸⁴ Rafferty, M. A., & Limonik, E. (2013). Is shale gas drilling an energy solution or public health crisis? *Public Health Nursing*, 30(5), 454-462. doi: 10.1111/phn.12036

¹⁴⁸⁵ Finkel, M. L., & Law, A. (2011). The rush to drill for natural gas: A public health cautionary tale. *American Journal of Public Health*, 101(5), 784-785. doi: 0.2105/AJPH.2010.300089

EXHIBIT 17

Existing scientific literature on setback distances from oil and gas development sites

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November 2017 (revised)

Background: Need for an LA Relevant Setback

The current body of peer-reviewed scientific literature has a small but growing set of studies investigating the relationship between the proximity of modern oil and gas extraction nearby communities and health impacts. The published studies that have examined this relationship have considered health outcomes, exposure to toxic health risks, and discussed whether current setback requirements in various states are adequate to ensure the health and safety of people who live, work, play, and learn near these facilities. These studies were conducted primarily in lower population density communities and states. Yet, the majority of these studies find a positive correlation between distance of a home from an active oil or gas well and adverse health outcomes. The closer people live to oil and gas wells, the more likely they will be exposed to toxic air contaminants and the more elevated their risk of associated health effects.¹ Most of these distances are measured at a half-mile to a mile (See Table 2). Distances in Los Angeles are much closer. No peer-reviewed studies to date have investigated the relationship between the proximity of oil and gas development and health outcomes in California, nor have any studied this issue in the U.S. urban context. In Los Angeles alone, about 1.7 million people live within 1 mile of an active oil or gas well, and of that group, more than 32,000 people live within 100 m (about 328 feet) of an oil or gas well.²

Overview of Report Contents

A total of 14 studies and publications were considered for this report that investigated the health and quality of life impacts and exposures of unconventional natural gas development proximate to residences. Of the 14 studies and publications, 6 considered the distance of an active well to place of residence (Table 1), while the remaining 4 considered the concentration of wells proximate to residences (Table 2). Four of the publications are studies and non-peer reviewed reports that have setback recommendations or relevant considerations for a safe setback margin (included in Table 1). The distances considered in this report range in setback recommendations and findings from 1,500 to 6,600 feet. Among the peer-reviewed studies that specified where samples and data were collected, the average population density was about 150 people per square mile. To compare, the population density for the City of Los Angeles is about 50 times greater at 8,092.3 people per square mile. In neighborhoods like South Los Angeles that is home to several active oil drilling sites, the population densities are up to more than 20,000 people per square mile.³ The population density in South Los Angeles is about **133 times greater** than those of the populations investigated in the existing literature. Table 1 lays out the peer-reviewed studies included in this report, ordered by the safe setback distance each study considered. Advocacy groups in Los Angeles have called for a 2,500-foot setback law to protect the health and safety of nearby residents.

The population density in South Los Angeles is about **133 times greater** than the populations investigated in the existing literature.

Based on the current available research, a 2,500-foot setback recommendation is on the lower end

of the range of distances where research has determined harmful health and quality of life impacts of toxic emissions and exposures.

Oil and Gas Extraction Methods

During much of the early and mid 1900's, conventional methods of extracting oil depleted most of the oil fields throughout the country. In Los Angeles, only 10% of oil field reservoirs can be recovered by conventional means.² Now, in order to access resources that are deeper or more difficult to recover than those that have been recovered historically, oil industry has pursued new technologies in "unconventional" or "enhanced oil recovery" methods.^{2,5} These methods include steam, water, and/or chemical injection, hydraulic fracturing, acidization, and gravel packing.

Although the existing research has primarily focused on health impacts and toxic emissions from unconventional natural gas development, many of the same chemicals of concern used in so-called unconventional activities are used in routine activities such as well maintenance, well-completion, or rework on both conventional oil and natural gas wells.⁶ There are many applications of hazardous chemicals in oil and gas development, and in fact the routine operational chemical use data is less available than that for unconventional chemical use activities.⁶

In Los Angeles, many of the extraction facilities utilize unconventional techniques, such as acidizing with hydrochloric and hydrofluoric acid, directional drilling, and gravel packing which involves use of tons of carcinogenic silica sand. Many of the oil fields in Los Angeles produce both oil and gas at a relatively equal ratio. Among the top ten producing oil fields in the City of Los Angeles, which include Beverly Hills, Wilmington, and Las Cienegas oil fields, the ratio of gas to oil production is about 0.91.⁷ Therefore, the existing research in other parts of the country holds relevance for the nature of oil and gas extraction in Los Angeles.

Health and Quality of Life Impacts

The consequences to health from oil and gas activity investigated in the reviewed studies include birth outcomes, asthma, other respiratory and dermal impacts, pediatric sub-chronic non-cancer and chronic hazard indices, unhealthy noise levels, and various associated health symptoms. Among the existing research, the greatest distance to oil and gas activity investigated was 2 km (6,561 feet) where exposure to hydrogen sulfide combined with VOCs were detected.⁸ The shortest distance measurement studied was 1,500 feet and this study found significantly more reports of health symptoms in households within 1,500 feet of an active well. The health symptoms included throat irritation, sinus problems, nasal irritation, eye burning, severe headaches, loss of sense of smell, persistent cough, frequent nose bleeds, swollen painful joints.⁹ Rabinowitz, et al. (2015) found an increased number of reported upper respiratory symptoms and skin conditions among residents who lived less than 1 km (3,280 feet) from an active well when compared with residents who lived more than 2 km (6,561 feet) from an active well.¹⁰ McKenzie, et al. (2012) found elevated risk of health effects from natural gas development for residents living less than half a mile from wells. They primarily considered the subchronic non-cancer hazard index, which was primarily driven up by exposure to trimethylbenzenes, xylenes, and aliphatic hydrocarbons, and chronic hazard index measurements, which were driven up by benzene exposure.¹¹

Another dimension of health impacts related to oil and gas development is noise levels. Boyle, et al. (2017) conducted a pilot study investigating the 24-hour noise levels of a compressor station relative to

residential homes both indoors and outdoors.¹² His study determined that homes up to 600m away (about 1,968 feet) experienced outdoor noise levels that exceeded the U.S. Environmental Protection Agency's recommended limit of 55 dBA 100% of the time.¹² In addition to these punctuated periods of noise, the regular day-to-day operations at the site cause what has been described as "buzzing" throughout the night makes it difficult to sleep. Recent studies have increasingly focused on "non-auditory" effects of noise on health including annoyance, sleep disturbance, daytime sleepiness, hypertension, cardiovascular disease, and diminished cognitive performance in school children.¹³ Many residents living in close proximity to oil and gas development sites in Los Angeles routinely complain of noise from routine operations.

Air Quality and Toxic Exposure

Three of the studies investigated levels of volatile organic compounds (VOCs) and endocrine disrupting chemicals that exceeded regulatory agency minimum standards. Haley, et al. (2016) discussed how exposures of hydrogen sulfide combined with VOCs could produce potentially new harmful exposures that could be detected at distances up to 2 km (about 6,561 feet).⁸ Macey, et al. (2014) investigated several jurisdictions with setback regulations for oil and gas operations and conducted air monitoring sampling to examine if the setbacks were adequate.¹⁴ The findings revealed high concentrations of carcinogenic VOCs at distances greater than the setback regulations, including formaldehyde at 2,591 feet and benzene up to 885 feet away from wells. The study also discussed how health-based risk levels that most regulatory agencies rely on for setting limits on air emissions are very limited in providing a sense of the human health impacts.¹⁴ The risk level standards do not account for more vulnerable subpopulations like children and the elderly. Additionally, the number of compounds that are required for monitoring and toxicity reporting is relatively small when considering the vast number of chemicals required for oil and gas operations.¹⁴ Kassotis, et al. (2014) found elevated levels of endocrine disrupting chemicals in water sources 1 mile away from oil and gas operations with known spills or incidences.¹⁵ The study noted that near one of the investigated facilities contaminated by endocrine disrupting chemicals (EDCs), some of the animals in the area were no longer producing live offspring.

The findings revealed high concentrations of VOCs at greater distances than the setback regulations, including formaldehyde at 2,591 feet and benzene up to 885 feet away from wells.

Explosion Risk and Hazards

Haley, et al. (2016) considered the minimum distance that might be required in case of a blow-out or explosion event by investigating historical evacuation data.⁸ For example, an explosion in the Barnett Shale in northern Texas produced a 750-foot burn crater.¹⁶ Their findings determined that the average evacuation zone for such incidences is 0.8 miles, or 4,224 feet. A blowout in Wyoming County, PA required a 1,500 foot evacuation zone, which required the evacuation of only 3 families.¹⁷ Considering that in Wyoming County the population density was only 71.2 people per square mile¹⁸¹⁶ compared to a densely populated neighborhood in South Los Angeles with a population density of over 20,000, if a similar event were to happen, the same distance of 1,500 feet would require evacuation of 100,743 people. A very recent example of natural gas pipeline explosion accident comes from rural Colorado. On April 17, 2017, a one-inch abandoned pipeline exploded under a home in Colorado, leveled the house,

killed two people and badly burned a third person. The gas well head was located just 178 feet from the home.¹⁹

Dense Population of the City of Los Angeles and Close Proximity to Oil and Gas Facilities Magnifies Health and Safety Risks

Four studies investigated the relationship between health outcomes and the number of wells within a certain radius of residential homes (Table 3). The studies were concerned with birth outcomes and childhood leukemia and were conducted in Pennsylvania and Colorado. The density measures ranged from 3.36 – 125 wells per square mile. To compare to Los Angeles, the four extraction facilities in South Los Angeles that extract from the Las Cienegas oil field, the 2nd largest gas producing field in Los Angeles, each have 22 to 36 oil and gas wells operating less than 100 feet from residential homes. The Inglewood oil field has over 1000 wells operating well within 1 mile of residential homes, recreation parks, and other sensitive land uses.

The studies that investigated poor birth outcomes found that mothers in the sampling population who lived near the highest density of active wells were 1.3 more likely to give birth to a child who had congenital heart defects (CHD) and 2 times more likely to give birth to a child with neural tube defects (NTD),²² higher incidences of LBW and SGA,²³ and increased rate of preterm birth.²⁴ McKenzie, et al. (2017) found that increased well density was associated with increased risk for acute lymphocytic leukemia in people ages 5-24.²⁵

Delphi Technique

In addition to peer review studies, a consortium of experts in environmental studies and public health have also assessed and considered policy recommendations to address the health and safety consequences of close proximity to oil and gas development. The Environmental Health Project (EHP) is a public health organization that utilized the Delphi Technique to arrive at an expert consensus on an appropriate setback distance for unconventional oil and gas development from human activity.²¹ “The

...89% participant agreement that **1 to 1.25-mile distance** from unconventional oil and gas development is an acceptable minimum.

Delphi is an accepted method for reaching convergence of expert opinion about a specific topic,” and in this study, consensus was defined as 70% agreement of panelists. The process resulted in an 89% participant agreement that 1 to 1.25-mile distance (6,600 feet) from unconventional oil and gas development is an acceptable minimum to protect human health. Additionally, the study recommends greater setback distances for settings where vulnerable subpopulations might gather, such as schools, day care centers, and

hospitals.

Existing setback laws

It is clear that throughout the scientific literature that researchers agree the existing setback laws in various jurisdictions throughout the U.S. are inadequate to protect the health and safety of residents who live, work, and play near oil and gas operations. Existing setback laws range from 150 to 1,500 feet. States like Arkansas,

...**existing setback laws** in various jurisdictions throughout the U.S. **are inadequate** to protect the health and safety of residents who live, work, and play nearby oil and gas operations.

Colorado, and Ohio have varying setback distances from different sensitive land uses.^{8,14} Pennsylvania and Texas have state level setback laws for any oil and gas operations near residential land use. Several municipalities in Denton County, Texas, have enforced stronger setback laws. In response to override these municipalities, the Texas state legislature subsequently passed HB40 which preempts regulation of oil and gas operations by municipalities. Haley, et al. (2016) determined that based on historical catastrophic events, thermal modeling, vapor cloud modeling, and air pollution data, these existing setbacks laws are not sufficient to protect potential risks and threats to human health from hydraulic fracturing operations.⁸ Macey, et al. (2014) considered the concentration of VOCs in five different states and determined that the setbacks in those states were inadequate to prevent exposure to formaldehyde and benzene.¹⁴ Majority of the established setback laws were typically decided by negotiations between stakeholders, like residents and policymakers, and not supported by scientific, empirical data.²³ The state of Maryland is one example of a jurisdiction that scientifically investigated the health and safety impact of oil and gas operations. In July of 2014, the University of Maryland School of Public Health conducted another study that focused on public health impacts.²⁶ Among the 52 recommendations that resulted from the investigation, the researchers recommended a minimum 2,000-foot setback between dwellings and well pads and non-electric motor compressor stations. In 2017, Maryland became the second state in the country to ban hydraulic fracturing.²⁷

Conclusions

While few studies have investigated the relationship between the proximity of oil and gas operations and human health impacts, this body of literature does highlight a clear public health concern and that existing setback laws are not adequately protecting public health and safety. **The growing body of scientific literature recognizes that a setback distance between oil and gas operations and locations where people live, work, play, and learn are necessary to protect human health and safety. Setbacks are especially crucial to protect vulnerable populations, such as children, elderly, and the chronically ill or disabled.** The 2,500-foot setback recommendation incorporates recognition of Los Angeles' population density and the vulnerability of residents, schoolchildren, and the elderly from health hazards and possible disasters related to oil development. The current literature has identified that existing laws are not adequate for low density, rural communities. This finding underscores the need for a stronger setback in Los Angeles' densely populated urban environment. Many of the impacted communities are in close proximity to a large number of wells and other oil and gas development facilities and are already overburdened by exposure to cumulative environmental health impacts from other industrial and transportation sources. These marginalized communities have long endured environmental injustice. **The scientific literature and published reports make a strong case for a far more protective health and safety setback for the City of Los Angeles than currently exists in other jurisdictions, and creates a substantial basis for the 2,500-foot setback proposed by community advocates.**

Table 1. Comparison of studies and reports by distance to active oil and gas wells with consideration to population density.

Blue shaded rows are non-peer reviewed reports. Orange shaded rows are peer reviewed publications that have relevant setback considerations or recommendations.

*Population density values based on 2010 U.S. Census Fact Finder Population density data.

| Citation | Health Impact / Exposure Finding | Distance with health / exposure finding impact / recommendation | Converted to feet | Pop Density 2010 of investigated counties/states (residents per sq.mi.) * |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------|---------------------------------------------------------------------------|
| SW Pennsylvania EHP Technical Reports ²¹ | Delphi Technique | 1 to 1.25 mile | 6,600 feet | -- |
| Haley, et al., 2016 ⁸ | Exposure to hydrogen sulfide combined with VOCs could produce potentially new set of exposures - detected at distances of 2 km | 2 km | 6,561 feet | -- |
| Haley, et al., 2016 ⁸ & Heinkel-Wolfe, 2013 ¹⁴ | Considered blow-out and evacuation data, average evacuation zone was 0.8 miles. Explosion in Barnett Shale produced a 750-ft burn crater. ¹⁴ | 0.8 miles | 4,224 feet | -- |
| Kassotis, et al., 2014 ¹⁶ | Elevated levels of endocrine disrupting chemicals in water sources 1 mile from sites that had known spills/incidents - animals no longer produced live offspring... Location: Garfield County, Colorado | 1 mile | 5,280 feet | 19.1 |
| Webb, Ellen, et al. 2017 | Literature review on neurodevelopmental and neurological effects of chemicals associated with UOG operations and their potential effects on infants and children. Made a recommended minimum setback of 1.6 km. | 1.6 km | 5,249 feet | -- |
| Rabinowitz, et al., 2015 ¹⁰ | Significant respiratory and dermal impacts Location: Washington County, PA | Less than 1 km | 3,280 feet | 242.5 |
| McKenzie, Witter, Newman, & Adgate, 2012 ¹¹ | Significantly increased risk of pediatric sub-chronic non-cancer hazard & Chronic hazard indices | Less than ½ mile | 2,640 feet | Rural areas and towns, population <50,000 in 57 counties |
| Macey, et al., 2014 ¹⁴ | Monitored high concentrations of VOCs - up to 2,591 ft Location: Counties in 4 states – AR, PA, CO, OH | 2,591 ft | 2,591 feet | 137.45 (average) |
| 2,500 FEET RECOMMENDATION FOR CITY OF LOS ANGELES | | | | 8,092.30 |
| University of Maryland School of Public Health 2014 ²⁶ | Recommended min setback distance of 2,000 ft from well pads Location: state of MD | 1,000 ft | 2,000 feet | 594.8 |
| Boyle, et al., 2017 ¹² | Unhealthy noise levels Location: Doddridge County, WV | < 600m | 1,969 feet | 25.7 |
| Steinzor, Subra, & Sumi, 2013 ⁹ | Significantly higher rates of health symptoms in households within 1,500 ft of an active well Location: 14 counties in PA | 1,500 ft | 1,500 feet | 165.1 |

Table 2. Studies investigating the relationship of health outcomes and proximity to concentration of wells

| Study | Outcome | Measurement | Wells density (per sq mile) | Pop Density 2010 of investigated counties/states (residents per sq.mi.) * |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------|
| McKenzie, et al., 2017 ²⁵ | In rural Colorado, People ages 5-24 had a 3-4 times higher risk for developing acute lymphocytic leukemia Location: state of Colorado | >33.6 wells in 16.1 km or 10 miles | 3.36 wells | 48.5 |
| Stacy, et al., 2015 ²³ | Birth outcomes by concentration of wells. Those with 6+ wells within mile had higher incidence of SGA and LBW in SW Pennsylvania Location: 3 counties in PA (Butler, Washington, Westmoreland) | 6+ wells per 1 mile | 6 wells | 277.0 (average) |
| Casey, et al., 2016 ²⁴ | Mothers who lived in the highest exposure quartile were 1.4 times more likely to give birth to children who were considered low birth weight (LBW) and smaller than gestational age (SGA). Location: 40 counties in PA – Using state population density | Highest exposure quartile had 124 wells within 20 km; lowest had 8 wells within 20 km | About 10 wells | 283.9 |
| South Los Angeles – Jefferson Drill Site (example for comparison) | | 36 wells within 1 mile | 36 wells | 21,848 |
| McKenzie, et al., 2014 ²² | In rural Colorado, mothers who lived in higher exposure tertile had 1.3 higher chance of giving birth to a child with congenital heart defect (CHD) 2.4 higher chance of having Neural Tube Defect. Even in the 2 nd tertile of highest exposure, mothers were 1.2 more likely to give birth to a child with CHD. Location: | Highest exposure tertile had 125-1400 wells within a mile, the next highest tertile had 3.63-125 wells within a mile. | 125 wells | Rural areas and towns, population <50,000 in 57 counties |

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EXHIBIT 18

2006 ANNUAL REPORT OF THE STATE OIL & GAS SUPERVISOR



California Department of Conservation
Division of Oil, Gas, & Geothermal Resources

dropped slightly from 1,907 in 2006 to 1,895 beginning 2007.

DRILLING ACTIVITY Drilling activity in the district decreased slightly from 2005 levels. Twenty-six wells were drilled or redrilled in 2006, compared with 30 in 2005. The following operators drilled/redrilled wells: Aera Energy LLC - 10 wells in the Ventura field; Berry Petroleum Co. - 7 wells in the Placerita field; Mirada Petroleum, Inc. - 1 well in the Ojai field; Renaissance Petroleum, Inc. - 3 wells in the Cabrillo field; Southern California Gas Co. - 4 wells in the Aliso Canyon field; Vaquero Energy, Inc. - 1 well in the Sespe field.

ACQUISITION OF VINTAGE PETROLEUM WELLS BY OCCIDENTAL PETROLEUM COMPANY In 2006, all the wells operated by Vintage Petroleum Inc. in District 2 were acquired by Vintage Production California LLC (VPC), a subsidiary of Occidental Petroleum Corporation. In addition, VPC acquired Plains Exploration and Production Co. operations in the Oxnard, Saticoy, South Mountain and Pacoima oil fields and the Newhall-Potrero oil field formerly operated by Medallion California Properties Company. Through these acquisitions, VPC owns 1,797 wells in 24 of the 45 active fields in District 2. In 2006, VPC initiated a program to upgrade existing facilities and dismantle out-of-service facilities, with work beginning in the San Miguelito and Rincon oil fields.

ABANDONMENT OF WELL "OJAI" 36 On March 3, 2006, immediately following a seismic event along

the San Cayetana fault in the Sespe oil field, idle-well "Ojai" 36, located approximately five miles west along this same fault zone in the Sisar Creek Area of the Ojai oil field, began to flow water at a rate of five barrels per minute. Well records indicated the well penetrated a fault and had encountered a high-pressure water sand. The operator, VPC, contracted with international well-control specialists Boots and Coots to begin emergency operations to secure the well site and bring the well under control. Division staff were on location daily to witness operations. The well was eventually killed with 20 pound-per-gallon mud and permanently plugged and abandoned by May 1st at a cost of approximately \$4 million (Photos 1 and 2).

ABANDONMENT OF BARSDDALE OIL FIELD WELLS At the request of the Division, VPC permanently plugged and abandoned 15 long-term idle wells on the "Acorn" and "Bardsdale-Bell" leases in the Bardsdale oil field. Many of these wells were discovered following the October 2003 fires when surrounding dense brush was consumed. The "Acorn" lease was discovered in 1894 and the "Bardsdale-Bell" lease in 1909, with all wells drilled using cable tool rigs and equipment (Photo 3). Most of the well locations were along steep hillsides, which made access extremely challenging and required a significant amount of grading to build locations adequate to accommodate the necessary abandonment equipment (Photos 4 – 7). Most of the wells required two to three times the theoretical volumes of cement to bring cement to surface, probably due to the antiquated landed casing completions.



Photo 1. Well "Ojai" 36. During killing operations, vacuum trucks removed water flowing from the well until kill mud could be injected to help secure the well before abandonment operations could begin. *Photo by D. Kahler.*



Photo 2. Key Energy Services California Inc. rig during abandonment operations on well "Ojai" 36. The Topa Topa Mountains are in the background. *Photo by D. Kahler.*

EXHIBIT 19



On Shaky Ground

**FRACKING, ACIDIZING, AND INCREASED
EARTHQUAKE RISK IN CALIFORNIA**



On Shaky Ground

FRACKING, ACIDIZING, AND INCREASED EARTHQUAKE RISK IN CALIFORNIA

MARCH 2014

AUTHORS: Jhon Arbelaez, Shaye Wolf, Ph.D. and Andrew Grinberg

Report available at: ShakyGround.org

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For 25 years, Earthworks has been protecting communities and the environment from the impacts of irresponsible mineral and energy development while seeking sustainable solutions.



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The Center for Biological Diversity is a national, nonprofit conservation organization with more than 675,000 members and online activists dedicated to the protection of endangered species and wild places.

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Clean Water Action works to empower people to take action to protect America's waters, build healthy communities, and to make democracy work for all of us.



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Executive Summary

This report analyzes the earthquake risks associated with an increase in wastewater injection that would result from an expansion of fracking and other unconventional oil production in California's Monterey Shale, including:

- the demonstrated connection between the injection of oil and gas wastewater and induced earthquakes,
- significant gaps in current science and inability of regulators to protect Californians from the dangers associated with these quakes, and
- proximity of many active California wastewater injection wells to active faults and major population centers.

To graphically illustrate the risks, the report includes maps from an online interactive tool developed by the FracTracker Alliance, which show the current extent of oil and gas development, including active wastewater injection wells, fracked and acidized wells, fault lines, and communities.

Key Findings:

1. A majority of California's active oil and gas wastewater injection wells are close to faults.

Our analysis shows that 54 percent of California's 1,553 active and new wastewater injection wells are within 10 miles of a recently active fault (active in the past 200 years), 23 percent are within 5 miles, and 6 percent are within 1 mile. Because the distance from a wastewater injection well to a fault is a key risk factor influencing whether a well may induce an earthquake, these findings raise significant concerns.

| Distance of California's Active/New Wastewater Injection Wells to Recently Active Faults | |
|------------------------------------------------------------------------------------------|-----------------------------------|
| NUMBER OF ACTIVE/NEW WELLS (PERCENT) | DISTANCE TO RECENTLY ACTIVE FAULT |
| 87 wells (6%) | Within 1 mile |
| 350 wells (23%) | Within 5 miles |
| 834 wells (54%) | Within 10 miles |

2. Millions of Californians live in areas at risk for induced earthquakes. Some of California's major population centers, such as Los Angeles and Bakersfield, are located in regions where high densities of wastewater injection wells are operating very close to active faults.

- 3. Research and monitoring are dangerously inadequate.** No studies to date have evaluated the increased risk of induced earthquakes from California’s existing wastewater injection wells. There are fundamental knowledge gaps in understanding the risks of induced seismicity from these wells.
- 4. Regulations do not protect Californians from the risk of induced earthquakes.** California has no plan to safeguard its residents from the risks of earthquakes induced by Class II injection wells or oil and gas production. Due to significant knowledge gaps, California’s Division of Oil, Gas, and Geothermal Resources (DOGGR) cannot safely regulate the risk of induced seismicity from oil and gas production and wastewater disposal.
- 5. Oil industry wastewater disposal poses unacceptable risks.** In light of the known environmental and health risks from drilling, well stimulation and wastewater disposal, the link between wastewater injection wells and earthquakes in other states, the potential for a massive expansion of drilling and wastewater production in the Monterey Shale, and the gaps in scientific knowledge regarding induced seismicity, the best way to protect Californians is to halt hydraulic fracturing, acidizing, and other unconventional oil and gas recovery techniques.

In sum, the findings highlight the lack of assurance that fracking and the injection of oil and gas wastewater can be conducted safely, and demonstrate the need for a halt to fracking, acidizing, and other forms of well stimulation.

This report is necessary because California’s oil industry may be on the verge of rapidly expanding unconventional oil production of the Monterey Shale, a vast shale oil deposit in the San Joaquin Valley, parts of the Central Coast, and the Los Angeles basin that underlies many communities, important wildlife habitat, and some of the nation’s richest farmland.

Oil and gas production results in billions of gallons of contaminated wastewater that is often disposed of in underground injection wells. In many parts of the eastern and central United States where fracking and wastewater injection have boomed, earthquake activity has increased dramatically. Some regions have experienced a 10-fold increase in earthquake activity. A growing body of research has linked wastewater injection wells to increased earthquake activity, including earthquakes that have damaged homes and infrastructure and caused human injuries. Extracting the oil in the Monterey Shale could produce almost 9 trillion gallons of wastewater.



California is uniquely vulnerable to seismic events, with more citizens and infrastructure at risk from earthquakes than any other U.S. state. Seven of the ten U.S. metropolitan areas with the highest estimated annualized losses from earthquake damage are located in the Golden State. An increase in damaging seismic activity would be devastating to California and its economy.

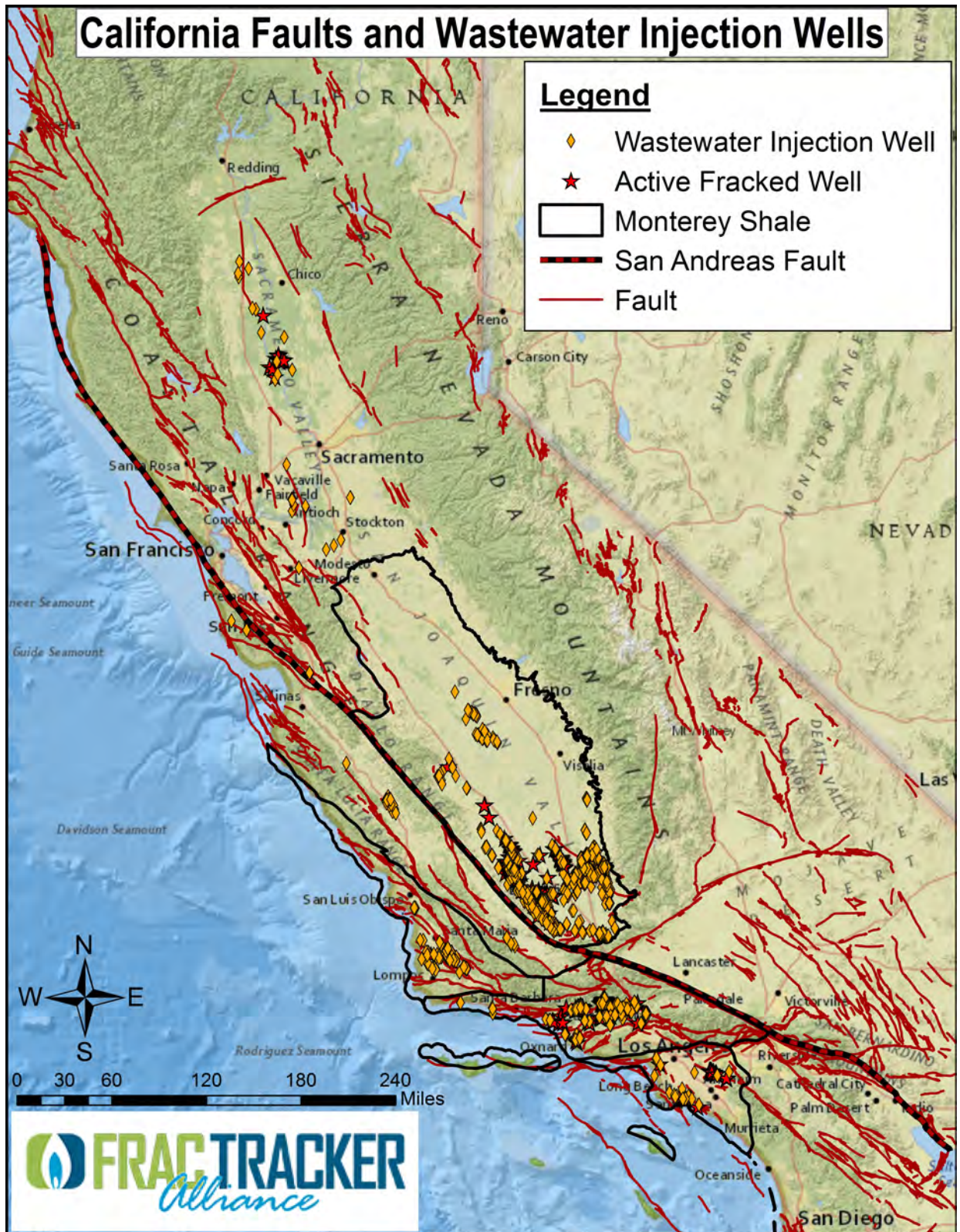


FIGURE 1: California's Faults and Wastewater Injection Wells

Fracking, Wastewater Injection Wells, and Increased Earthquake Risks

1. Fracking and acidizing produce large volumes of contaminated wastewater.

The development of unconventional oil and gas recovery techniques, such as hydraulic fracturing and acidizing, has allowed for a rapid expansion of shale oil and gas development across many parts of the United States. Hydraulic fracturing, or fracking, is a well stimulation technique that releases oil and gas from relatively impermeable formations, such as shale and tight sands, allowing for the extraction of previously unreachable hydrocarbons. Fracking typically involves pumping high volumes of water, sand, and chemicals at high pressures into the rock formation, causing it to crack and release oil and gas.¹

Although fracking has been done in the U.S. for many years, recent developments, such as directional and horizontal drilling and new chemical fluid mixtures, have facilitated an increase of drilling in previously uneconomic geologic formations.

Acidizing, another well stimulation technique, involves the injection of hydrochloric and/or hydrofluoric acids, along with some of the same fluids used for fracking.² These chemicals modify the permeability of a geologic formation, allowing increased hydrocarbon flow. In California, acidizing may be the well stimulation treatment of choice for the oil and gas industry to access the Monterey Shale, due to the highly fractured geology of the state.³

Hydraulic fracturing, acidizing and other unconventional well stimulation methods create large quantities of wastewater — called flowback and produced water — that contain contaminants which can reach toxic concentrations. Flowback is the fluid that returns to the surface after fracturing or acidizing is completed, but before oil and gas is recovered from the well. Produced water is primarily composed of the formation fluid that comes to the surface once production of oil and gas has begun. Produced water is associated with all forms of oil and gas production, regardless of the well stimulation technique.

Both flowback and produced water can contain chemicals from the fracking fluid and the fluids rising from deep in the rock formation, which can be harmful to human health. An estimated 15 to 100 percent of fracking fluids return to the surface as wastewater.⁴ More than 75 percent of the chemical additives in fracking fluids can affect important organs, and 25 percent can cause cancer.⁵ Flowback and produced water are typically very saline and can contain heavy metals such as lead, organic contaminants such as benzene and toluene, and naturally occurring radioactive materials from deep in the formation,⁶ which makes treatment and recycling difficult.



Recent estimates report that flowback volumes can range between 420,000 gallons to more than 2.5 million gallons per fracking event, depending on the characteristics of the formation, the amount of fluid injected, and the type of hydrocarbon being extracted.⁷ Produced water can reach millions of gallons over the lifetime of the well.⁸ In California, oil and gas wells averaged approximately 2.3 million gallons of wastewater per well in 2011.⁹

2. Underground injection wells are the most common method for disposing of oil and gas wastewater in California and many other parts of the U.S.

The wastewater produced during oil and gas extraction is either disposed of or reused for additional oil and gas extraction in a process called “secondary recovery” or “enhanced oil recovery (EOR).” In California and many other parts of the country, the most common wastewater disposal method is trucking or piping the wastewater for injection into deep wastewater injection wells, drilled into porous rock thousands of feet underground.¹⁰ These wastewater injection wells are categorized as Class II Underground Injection Wells by the U.S. Environmental Protection Agency (EPA), which oversees their regulation under the Safe Drinking Water Act’s (SDWA) Underground Injection Control (UIC) Program.¹¹ In California, the Division of Oil Gas and Geothermal Resources (DOGGR) received primacy to directly regulate the state’s Class II underground injection wells in 1982.¹²

There are about 30,000 Class II wastewater injection wells in operation in the U.S. that are used for wastewater disposal from oil and gas production.¹³ Texas leads the nation with about 7,500 active wastewater injection wells,¹⁴ followed by Oklahoma with an estimated 4,400 active wells.¹⁵

California has an estimated 2,583 wastewater injection wells, of which 1,553 are currently active.¹⁶ Wastewater injection wells are located throughout the state, from the Chico area in northern California, to Kern County in the Southern San Joaquin Valley, to Los Angeles in the south, and even offshore near Santa Barbara.¹⁷

California’s oil and gas fields produce billions of gallons of contaminated wastewater each year that must be managed — about 15 times more wastewater than oil.¹⁸ In 2012 alone, California’s oil and gas industry produced an estimated 124 billion gallons of wastewater.¹⁹ Much of this wastewater is permanently disposed of in wastewater injection wells. According to the most recent data available from the U.S. Department of Energy, in 2007 California’s oil and gas industry disposed of 22 percent of the wastewater it produced into injection wells, totaling more than 23 billion gallons²⁰ — equivalent to about 35,500 Olympic-sized swimming pools. About 69 percent of the wastewater was reused for enhanced recovery,²¹ and small amounts are disposed of in unlined percolation ponds, lined evaporation ponds, sewer systems, and surface waters.²²

The amount of wastewater being disposed of in injection wells has skyrocketed in states where fracking has proliferated in recent years.



In 2012 alone, California’s oil and gas industry produced an estimated 124 billion gallons of wastewater.

In Texas, for example, the amount of wastewater injected into disposal wells increased from 1.9 billion gallons in 2005 to nearly 147 billion gallons in 2011 — a 76-fold increase.²³

California's oil and gas industry may be on the verge of rapidly expanding unconventional oil production in the Monterey Shale, a vast shale deposit in the San Joaquin Valley, parts of the Central Coast and the Los Angeles basin, which holds an estimated 13.7 billion barrels of technically recoverable shale oil.²⁴ If the oil and gas industry develops the Monterey Shale, the production of wastewater and demand for wastewater injection wells are likely to increase substantially. For example, based on the historically reported ratio of 15 times more wastewater than oil produced in California, extracting the Monterey Shale's estimated 13.7 billion barrels of recoverable oil could produce 8.6 trillion gallons (205.5 billion barrels) of wastewater — enough to fill almost 13 million Olympic-sized swimming pools.

3. Scientists have long documented that wastewater injection wells can induce earthquakes.

The underground injection of wastewater has long been documented to induce earthquakes. Wastewater injected into rock formations can build up significant pressure depending on the volume of wastewater, rate of injection, and the permeability of the rock. This pressure build-up can induce an earthquake if the pressure is relayed to a fault that is already stressed and close to failure. The pressure can reduce the natural friction on the fault enough to cause it to slip and trigger an earthquake.²⁵ The larger the fault, the larger the magnitude of earthquakes it can host.²⁶

As early as the 1960s, scientists began documenting seismic activity from the injection of large volumes of fluids underground.²⁷ One of the first recorded cases of human-induced earthquakes due to underground fluid injection occurred in 1961, when the U.S. Army began disposing of millions of gallons of liquid hazardous waste 12,000 feet below the surface at the Rocky Mountain Arsenal near Denver, Colorado. This injection spurred more than 1,500 earthquakes over a five-year period in an area not known for active seismicity. It culminated in three earthquakes of magnitudes 5.0 to 5.5 more than a year after injection ceased, the largest of which caused more than \$500,000 in damages. Geologists discovered that the Army well had been drilled into an unknown fault. This example, as well as two other well-studied fluid injection projects — at Rangely, Colorado, in the 1970s and Paradox Valley, Colorado, in the 1990s — established that wastewater injection wells could induce earthquakes large enough to cause significant damage.²⁸



4. Wastewater injection wells have induced felt and damaging earthquakes of magnitudes 4 and 5 in regions where fracking has proliferated.

In many areas of the U.S. where fracking has proliferated, earthquake activity has increased dramatically. As scientists begin to investigate the causes of these earthquake swarms, a growing number of studies have attributed some of this increased earthquake activity, and some of the largest earthquakes, to the underground injection of oil and gas wastewater in these regions.²⁹

Within the Midwestern and Eastern U.S., the number of recorded earthquakes began to increase in 2003, rising dramatically after 2009.³⁰ In total, an average of 100 earthquakes per year of magnitude³¹ 3 (M3) or larger struck between 2010 and 2012, compared with only 21 per year between 1967 and 2000.³² States experiencing elevated levels of earthquake activity in parallel with booms in unconventional oil and gas development include Oklahoma, Texas, Colorado, New Mexico, Arkansas, Ohio, and West Virginia.³³

Earthquakes of M3 to M5 have been scientifically linked to wastewater injection wells in at least six states: Oklahoma, Texas, Colorado, New Mexico, Arkansas, and Ohio. The largest of these was a M5.7 earthquake near Prague, Oklahoma, outside of Oklahoma City which was the biggest in the state's history. It destroyed 14 homes, damaged infrastructure and numerous buildings, and injured two people.³⁴

Other large earthquakes attributed to wastewater injection include a M4.8 in Texas, M5.3 in Colorado, M4.7 in Arkansas, and M3.9 in Ohio, as summarized by state below:

Oklahoma: Oklahoma's earthquake activity has increased dramatically since 2009, with the increase linked to wastewater injection wells.³⁵ The state has been hit by more than 200 earthquakes of M3 or larger since 2009 — about 40 per year — compared to 1 to 3 a year between 1975 and 2008.³⁶ According to the U.S. Geological Survey (USGS), the likelihood of an earthquake in central Oklahoma has increased by a factor of 10.³⁷ These earthquake swarms are striking in populated areas, culminating with the largest earthquake ever recorded in the state — the damaging M5.7 earthquake near Prague outside Oklahoma City in 2011, which scientists have linked to injection wells.³⁸ In October 2013, the USGS and Oklahoma Geological Survey (OGS) warned that the "earthquake swarm" around Prague and Oklahoma City has increased hazards for city and rural residents, and stated that wastewater injection wells may be a "contributing factor."³⁹ This warning caused the State Insurance Commissioner to recommend that Oklahoma residents buy earthquake insurance.⁴⁰ Recent earthquake swarms have also hit near Marietta in southern Oklahoma and Enid to the north, with these swarms also thought to be linked to wastewater injection wells.⁴¹

Earthquake activity has increased dramatically in many areas of the U.S. where fracking has proliferated.



Texas: Several regions of Texas have experienced increased earthquake activity near wastewater injection wells in areas where no previous seismic activity has been recorded. In regions near Dallas-Ft. Worth, Cleburne, and Timpson, scientists have linked increased earthquake activity to wastewater injection wells.⁴² Timpson, Texas, has been struck by a series of damaging earthquakes, including the largest ever recorded in eastern Texas — a M4.8 in May 2012 which caused significant structural damage⁴³ — and M4.1 and M4.3 earthquakes in 2013.⁴⁴ In the heavily populated Dallas-Fort Worth region, scientists have attributed a series of small earthquakes in 2009 to wastewater injection.⁴⁵ Since 2009, the region has been hit by stronger earthquakes between M3 and M4.⁴⁶

Colorado/New Mexico: Earthquake activity has increased dramatically in the Raton Basin of southern Colorado and northern New Mexico, culminating in a M5.3 earthquake near Trinidad, Colorado, in August 2011, with increased seismicity being attributed to wastewater injection wells.⁴⁷ The number of earthquakes of M3 or greater increased from 0.16 per year in the 31-year period before injection, to 9.5 per year after injection began in 2001.



Arkansas: Earthquake activity in central Arkansas increased sharply in 2010 and 2011, when earthquake swarms hit near the towns of Guy and Greenbrier, close to injection wells, culminating in a M4.7 earthquake in February 2011.⁴⁸ After the first wastewater disposal well became operational in April 2009, the rate of $M \geq 2.5$ earthquakes skyrocketed, with one in 2007, two in 2008, 10 in 2009, 54 in 2010, and 157 in 2011. Scientists have determined that these swarms were likely induced by wastewater injection.⁴⁹

Ohio: The injection of wastewater into a deep well has been linked to a series of earthquakes in a previously earthquake-free region near Youngstown, Ohio.⁵⁰ More than 109 earthquakes occurred between January 2011 and February 2012, with a M3.9 earthquake striking on December 31, 2011.

This growing body of research demonstrates that injecting wastewater into underground disposal wells can induce earthquakes. These studies also illustrate what is currently known and unknown about the risks of induced earthquakes from wastewater injection wells, including key uncertainties. Some important facts and uncertainties include:

- While injection wells can operate for years without creating felt earthquakes, some wastewater injection wells have induced earthquakes that can cause structural damage and human injuries, and the number of documented cases is growing.
- While induced seismicity often occurs within months of injection, the onset can be delayed for many years — as much as 20 years in some instances — after the initiation of injection.⁵¹
- Induced seismicity, including large earthquakes, may continue for months to years after injection is stopped.



- While many induced earthquakes originate near the injection point, they have also occurred up to 7.5 miles (12 kilometers) away, indicating that the potential influence of wastewater injection wells can extend out many miles.⁵² Research has not established a maximum distance over which injection wells can induce earthquakes.
- The maximum possible magnitude of an induced earthquake that can be triggered by injection is unknown.

5. Hydraulic fracturing has induced felt earthquakes of magnitudes 2 and 3.

Fracking appears to pose a lower risk of inducing destructive earthquakes than the injection of oil and gas wastewater. Fracking intentionally cracks the shale rock around wells to release oil and gas deposits and routinely produces small earthquakes ($M < 1$) typically not felt at the surface.⁵³ However, several recent studies have reported that fracking has induced earthquakes of magnitudes 2 and 3 in Oklahoma, British Columbia, and the United Kingdom,⁵⁴ including a M3.8 event.

These cases illustrate that fracking can induce larger magnitude earthquakes when the rock formation being fracked intersects a fault:

Oklahoma: In January 2011, a series of 116 earthquakes, ranging from M0.6 to M2.9, occurred near a well being hydraulically fractured in south-central Oklahoma. Multiple earthquakes were felt by a local resident. A study by a scientist at the OGS found that the area was highly faulted, and concluded that “it is likely that hydraulic fracturing triggered the earthquakes observed in this study.”⁵⁵

British Columbia: A 2012 study by the British Columbia Oil and Gas Commission determined that seismic events reported in the Horn River Basin between April 2009 and December 2011 were caused when fracking fluids were injected into a fault.⁵⁶ A series of 38 earthquakes were recorded between M2.2 and M3.8, with the largest earthquake felt by workers.

United Kingdom: A series of earthquakes culminating in a M2.3 near Blackpool, England, in 2011 has been attributed to fracking.⁵⁷



6. Earthquakes may cause oil and gas leaks and spills, and pose a risk to groundwater near oil and gas infrastructure.

There is ample cause for concern about the potential harm to groundwater associated with earthquakes near oil and gas wells. All wells, including production and wastewater injection wells, rely on the integrity of the well casing to prevent contamination of underground aquifers. Seismic activity that occurs close to wells may increase the likelihood of damaging the well casing or cementing, which can allow contamination of underground sources of drinking and irrigation water from the migration of hydrocarbons, well stimulation and drilling chemicals, or produced water.

Well casing failures are common, but the extent to which they are caused by or exacerbated by seismic movement is unknown. In Pennsylvania, a study using data supplied by industry found failure rates of 6 to 9 percent.⁵⁸ A ProPublica review of injection wells nationwide found that from 2007 to 2010, more than 7,000 (3 percent) of 220,000 wells showed signs of leakage, and more than 17,000 (8 percent) had received violations.⁵⁹ The same report found that in California over that time period there were 12 cases of groundwater contamination and 63 cases of significant leaks from injection wells.⁶⁰

California lacks key data on well casing failures. DOGGR does not maintain a database of well casing failures, and the agency is unable to identify which wells have failed and the rate at which wells experience integrity failures. The unknown extent of well casing failures and the lack of understanding of the impacts of seismic activity on well casing integrity are especially troubling for California. The state's elevated risk of seismic activity, combined with additional induced seismicity risk from well stimulation and underground injection, could lead to disastrous consequences should an earthquake cause major well casing failures. The rate of well casing failure, along with the effects of seismic activity on well integrity, should be further analyzed to better understand the risk of groundwater contamination from oil and gas wells in California.

Although there is no comprehensive analysis, evidence of well casing failures linked to earthquakes already exists in the state. For example, in Ojai, California, API well #11101020 experienced a failure directly after an earthquake occurred on the nearby San Cayetano fault. According to DOGGR, on March 3, 2006, the Ojai 36 well, located in the Sespe oil field, 1.23 miles from the San Cayetano fault (Figure 2), was plugged and abandoned after a M3.1 earthquake triggered a 5 barrel-per-minute leak of produced water.⁶¹ The well log indicates that there is no record of when the well was initially drilled, but it was deepened in 1918. Like many existing oil and gas wells which were drilled decades ago, there is no record of any assessment of nearby faults and seismic threats to well casings.⁶²

In Ojai, California, API well #11101020 experienced a failure directly after an earthquake occurred on the nearby San Cayetano fault.

The example of Ojai 36 demonstrates how seismic events may cause well casing failure and that drilling in seismically active areas may pose increased risk of failures and potential groundwater contamination.



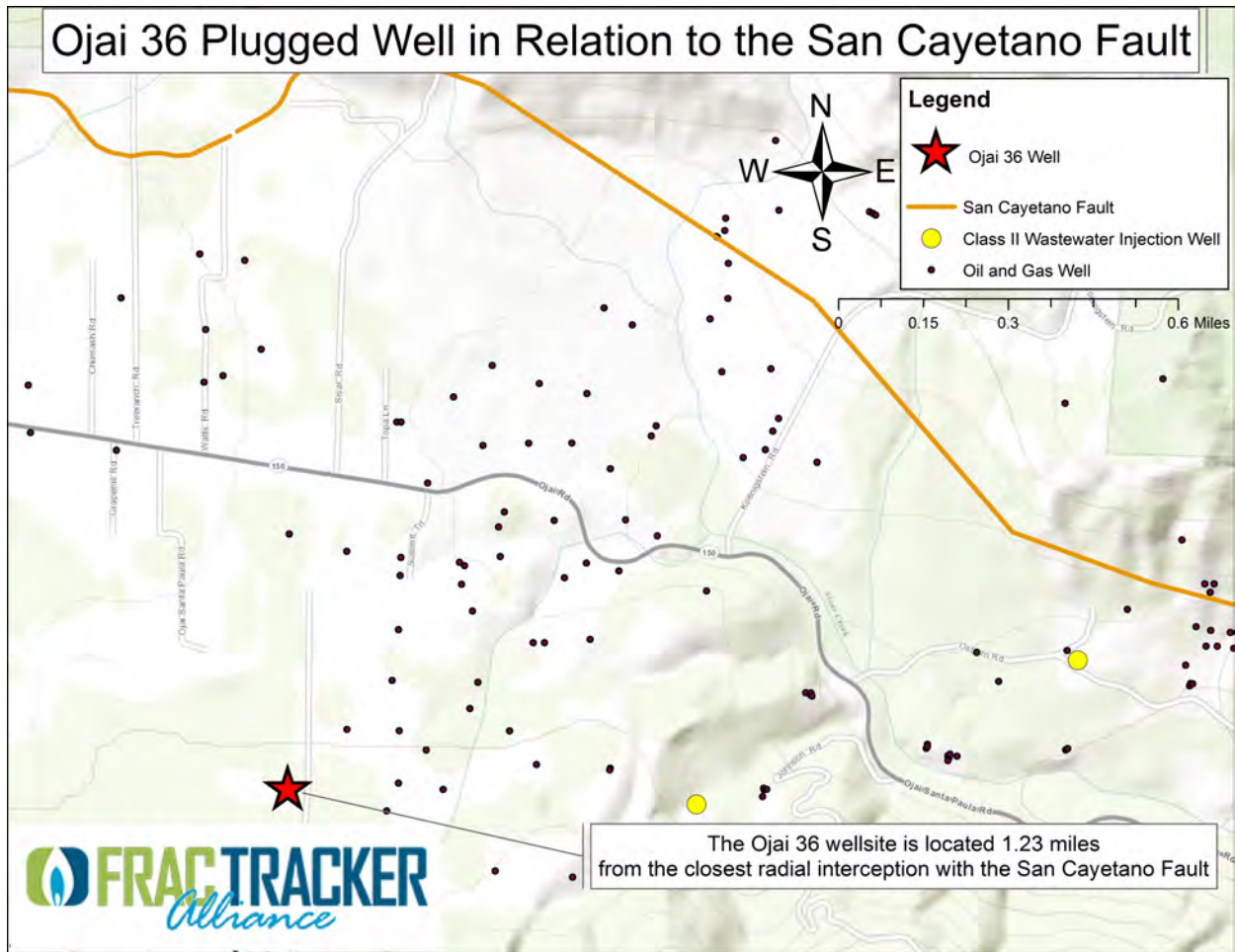


FIGURE 2: Location of Well Failure in Ojai, CA, In Relation to the San Cayetano Fault.

Evaluating Earthquake Risk from Wastewater Injection Wells and Fracking in California

1. California is one of the most seismically active states in the nation, with many active faults and more citizens and infrastructure at risk from earthquakes than any other state.

California lies within the planet's Ring of Fire, a seismically active region surrounding the Pacific Ocean from New Zealand, to Alaska, to Chile. Ninety percent of the world's earthquakes and 81 percent of the largest earthquakes occur along the Ring of Fire.⁶³ In California, there are thousands of small earthquakes per year that are attributed to the complex system of faults that crisscross the state. The most prominent is the San Andreas fault which cuts across California, forming the boundary between the Pacific and North American tectonic plates.⁶⁴ Other active faults are the San Jacinto fault in Southern California and the Mendocino Triple Junction in Northern California, which have historically produced large earthquakes.⁶⁵

Due to its frequent seismic activity and large population centers, California has more citizens and infrastructure at risk from earthquakes than any other U.S. state.⁶⁶ In fact, seven of the 10 U.S. metropolitan areas with the highest estimated annualized losses from earthquake damage are in California, with the Los Angeles-Long Beach-Santa Ana area ranking first.⁶⁷

The San Andreas fault and the Hayward-Rodgers Creek fault have the greatest probability of generating a large earthquake.⁶⁸ Many earthquakes typically occur within 31 miles (50 kilometers) of the San Andreas fault, including many with M7.0 or above. Examples include the 1906 San Francisco earthquake (M7.9) and the 1989 Loma Prieta earthquake (M7.0). A number of moderate to large earthquakes — M5.5 or above — have occurred in faults away from the San Andreas. These include the 1952 Kern County earthquake (M7.5), the 1971 San Fernando earthquake (M6.7), and the 1994 Northridge earthquake (M6.7).



In California, earthquakes pose added risks from landslides and liquefaction, particularly along the densely populated coast. Liquefaction, a type of ground failure specific to earthquakes, occurs when water-saturated sand and silt behave like a liquid due to the trembling of the earth. The soils can then no longer support structures, may flow down even gentle slopes, and erupt to the surface as sand boils. Liquefaction usually leads to settlement of the surface in uneven patterns that damage infrastructure such as buildings, roads, and pipelines.⁶⁹ Areas with high liquefaction hazards include

landfills, particularly those in areas once submerged by water, as well as wetlands, river floodplains, and stream channels.⁷⁰ Areas of particular concern for liquefaction include the margins of San Francisco Bay⁷¹ and parts of Los Angeles County (Figure 3).



FIGURE 3. Landslide and Liquefaction Zones in Southern CA with Class II Wastewater Injection Wells and Fracked Wells. Areas with high liquefaction hazards include landfills, particularly those in areas once submerged by water, as well as wetlands, river floodplains, and stream channels. Areas of particular concern for liquefaction include the margins of San Francisco Bay and parts of Los Angeles County.

2. More than half of California's 1,553 active wastewater injection wells are within 10 miles of a recently active fault.

Two interactive maps developed by the FracTracker Alliance show the current extent of oil and gas development, seismic activity, and seismic hazards throughout California. The maps depict the state's fault lines, wastewater injection wells, fracked and acidized wells, liquefaction and landslide hazard zones, and the Monterey Shale that is the focus for unconventional development. Users may zoom in and out to determine if their neighborhood is affected by oil and gas development and wastewater injection wells, or lies in a seismic hazard zone. Links are provided here: [California Geological Hazards Map](#), [Injection Wells and Hydraulic Fracturing in California's Fault Zones](#). In the maps, the fault history is categorized into four groups based on the last time that each fault was active: Historic (fault experienced earthquake activity in the last 150 to 200 years), Holocene (activity in the last 11,000 years), Late Quaternary (activity in the last 750,000 years), and Quaternary (activity in the last 1,600,000 years), using the definitions from the USGS and the California Geological Survey (CGS). Detailed descriptions of the maps are provided in Appendix A.

Based on this data, we analyzed the proximity of California's active and new Class II wastewater injection wells to faults in order to assess the risks that injection wells may pose to Californians. We evaluated recently active ("Historic") faults — defined as those with activity in the past 150 to 200 years — and Quaternary faults — defined as those with activity in the past 1.6 million years — using data from the CGS⁷² and USGS.⁷³ We also analyzed a subset of "high-magnitude faults" identified as causing earthquakes greater than M6. New wells are those that have been permitted, may have been drilled, but are not yet actively disposing fluids by injection. A detailed methodology is presented in Appendix A. The distances of both active and inactive wastewater injection wells to faults is presented in Appendix B.

Our analysis shows that more than half of California's 1,553 active and new Class II wastewater injection wells are within 10 miles of a recently active fault that has caused an earthquake in the past 200 years. Specifically, 834 wells (54 percent) are within 10 miles of a recently active fault, 350 wells (23 percent) are within 5 miles, and 87 wells (6 percent) are within 1 mile (Table 1). Of added concern, 42 wells are within 10 miles of a recently active, high-magnitude fault that has caused an earthquake greater than M6 in the past 150 years, 30 wells are within 5 miles, and one well is within 1 mile.

When all faults are considered, our analysis found that 1,197 active and new wastewater injection wells (77 percent) are within 10 miles of a Quaternary fault, 808 wells (52 percent) are within 5 miles, and 302 wells (19 percent) are within 1 mile (Table 2). Of these, 529 wells are within 10 miles of a high-magnitude Quaternary fault that has caused an earthquake greater than M6 in the past 1.6 million years, 249 wells are within 5 miles, and 53 wells are within 1 mile.



More than half of California's 1,553 active and new wastewater injection wells are within 10 miles of a recently active fault and almost one-quarter are within 5 miles.

The close proximity of California’s wastewater injection wells to faults raises significant cause for concern over the potential for these wells to induce earthquakes. Earthquakes have been induced at distances up to 7.5 miles (12 kilometers) from an injection well,⁷⁴ and many of California’s active wastewater injection wells are located much closer to faults. Scientists have recommended using 12.4 miles (20 kilometers) as the distance of concern for evaluating whether an injection well might induce an earthquake,⁷⁵ and the vast majority of California’s active and new injection wells lie within this distance.

| TABLE 1. Number of active and new wastewater injection wells within 1, 5, and 10 miles of recently active faults that have caused earthquakes in the past 200 years | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| NUMBER OF ACTIVE/NEW WELLS (PERCENT) | DISTANCE TO FAULT |
| 87 wells (6%) | Within 1 mile |
| 350 wells (23%) | Within 5 miles |
| 834 wells (54%) | Within 10 miles |

| TABLE 2. Number of active and new wastewater injection wells within 1, 5, and 10 miles of Quaternary faults that have caused earthquakes in the past 1.6 million years | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| NUMBER OF ACTIVE/NEW WELLS (PERCENT) | DISTANCE TO FAULT |
| 302 wells (19%) | Within 1 mile |
| 808 wells (52%) | Within 5 miles |
| 1,197 wells (77%) | Within 10 miles |

We also found that some of the state’s major population centers, such as Los Angeles and Bakersfield, are in regions where high densities of wastewater injection wells are located near recently active faults (Figure 4). The impacts of induced earthquakes can be particularly costly in these heavily populated regions.

Some of the state’s major population centers such as Los Angeles and Bakersfield are in regions where high densities of wastewater injection wells are near recently active faults.

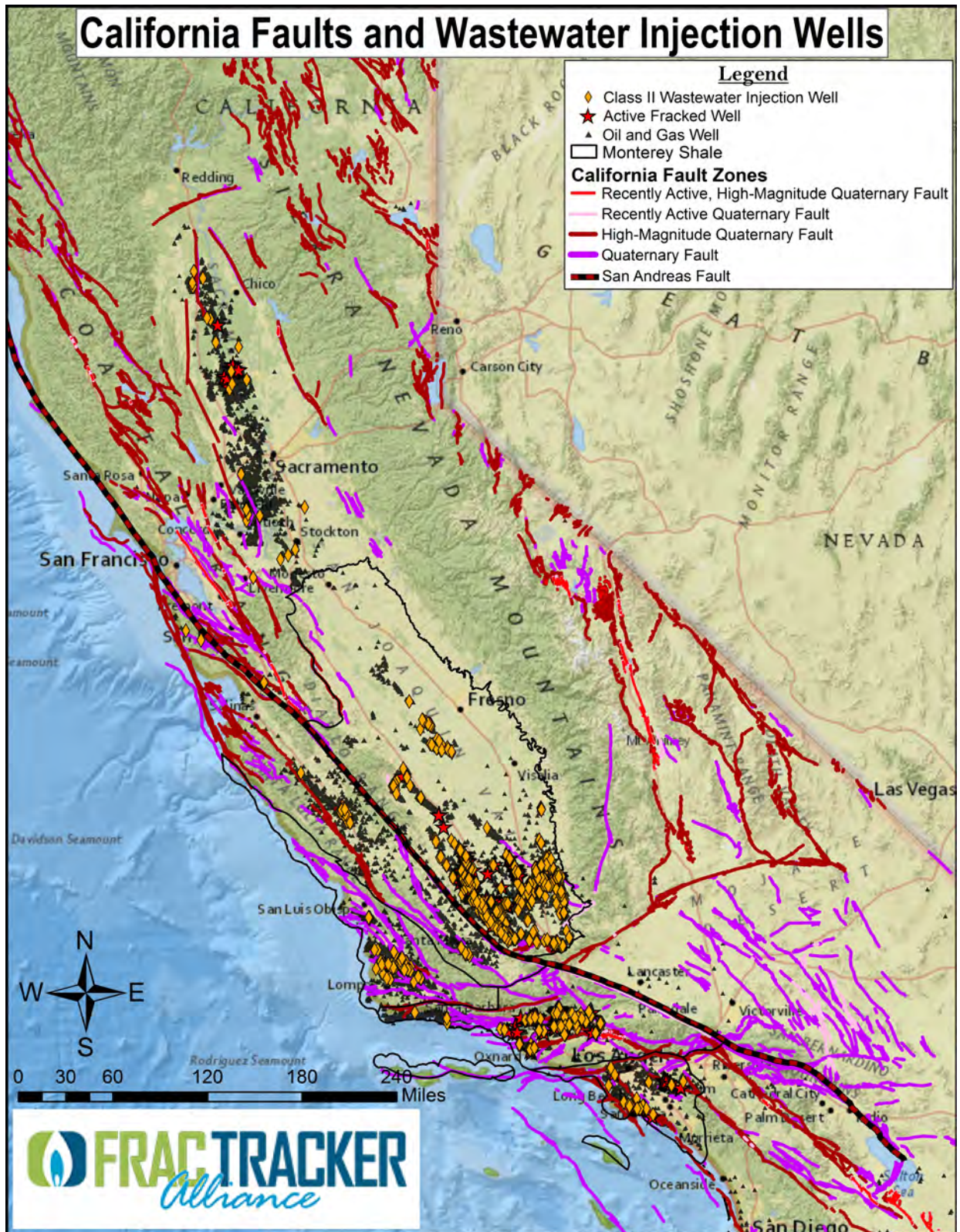


FIGURE 4. California Faults with Class II Wastewater Injection Wells and Fracked Wells. High densities of wastewater injection wells are located near recently active faults.

We highlight three at-risk regions — Kern County, Ventura County, and Los Angeles County:

Kern County: Just to the west of Kern County lies the San Andreas fault — one of the most active faults in the world. Just a few miles from the fault, a large concentration of underground injection wells litters the landscape (Figure 5). There are additional injection wells throughout the county, as well as hundreds of oil wells that are actively fracked and acidized. In 1952, a M7.5 earthquake struck the city of Bakersfield, causing millions of dollars in damage. Kern County produces nearly 80 percent of all oil in California. An earthquake in the area could cause significant environmental damage from well ruptures and spills, as well as injuries, loss of life, and monetary damages.

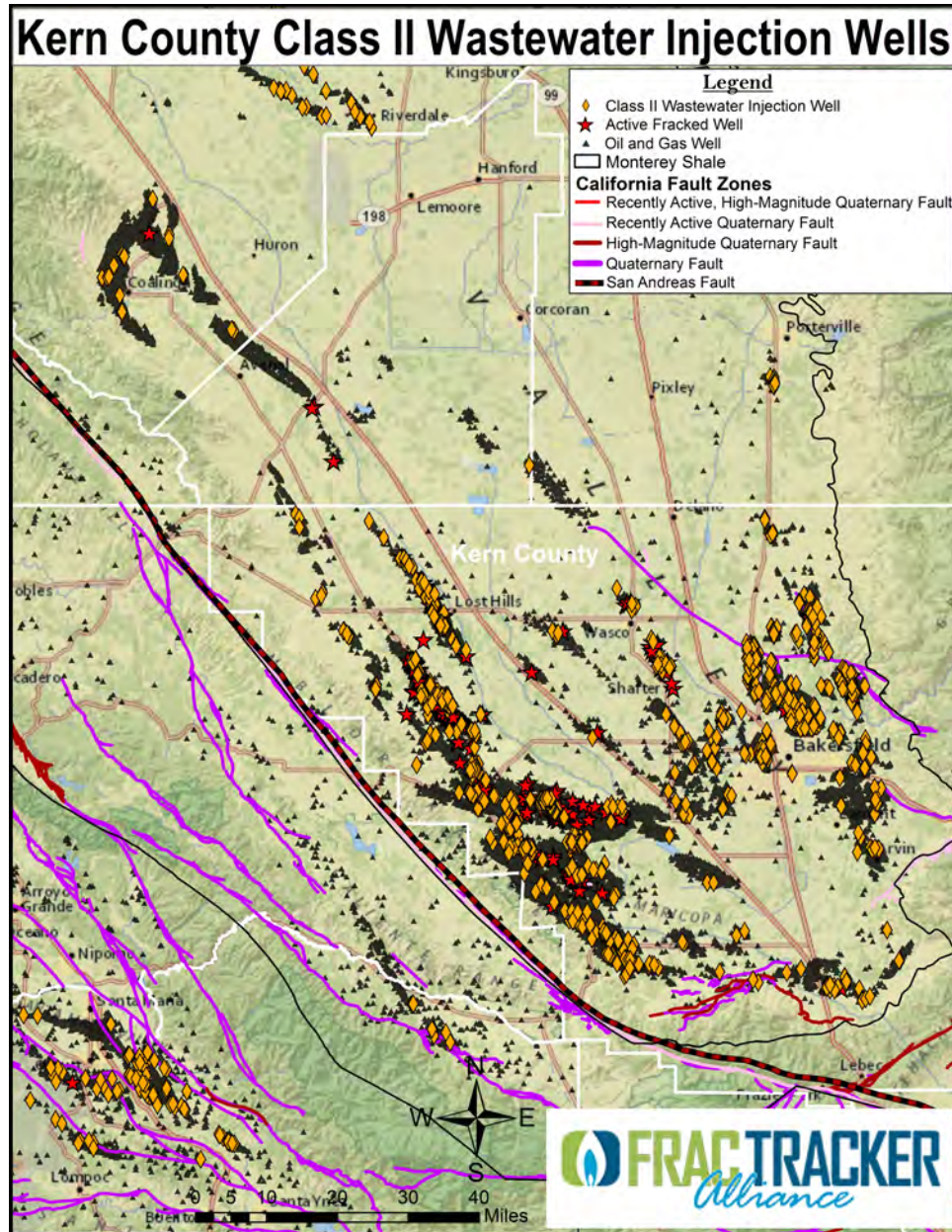


FIGURE 5. Kern County Faults with Class II Wastewater Injection Wells and Fracked Wells

Ventura County: Wastewater injection and oil production, including fracking and acidizing, is occurring near faults in the mountains north of the cities of Ventura and Oxnard (Figure 6). These regions are also high-hazard areas for liquefaction and landslides. Should a significant earthquake occur, it would put hundreds of thousands of residents in danger and could cause billions of dollars in infrastructure damage. The CGS estimated a loss of nearly \$82 million in the Ventura-Oxnard area in 2010 due to seismic activity.⁷⁶ Ventura County lies in the southern edge of the Monterey Shale, one of the areas of most interest for future oil and gas development in the state.

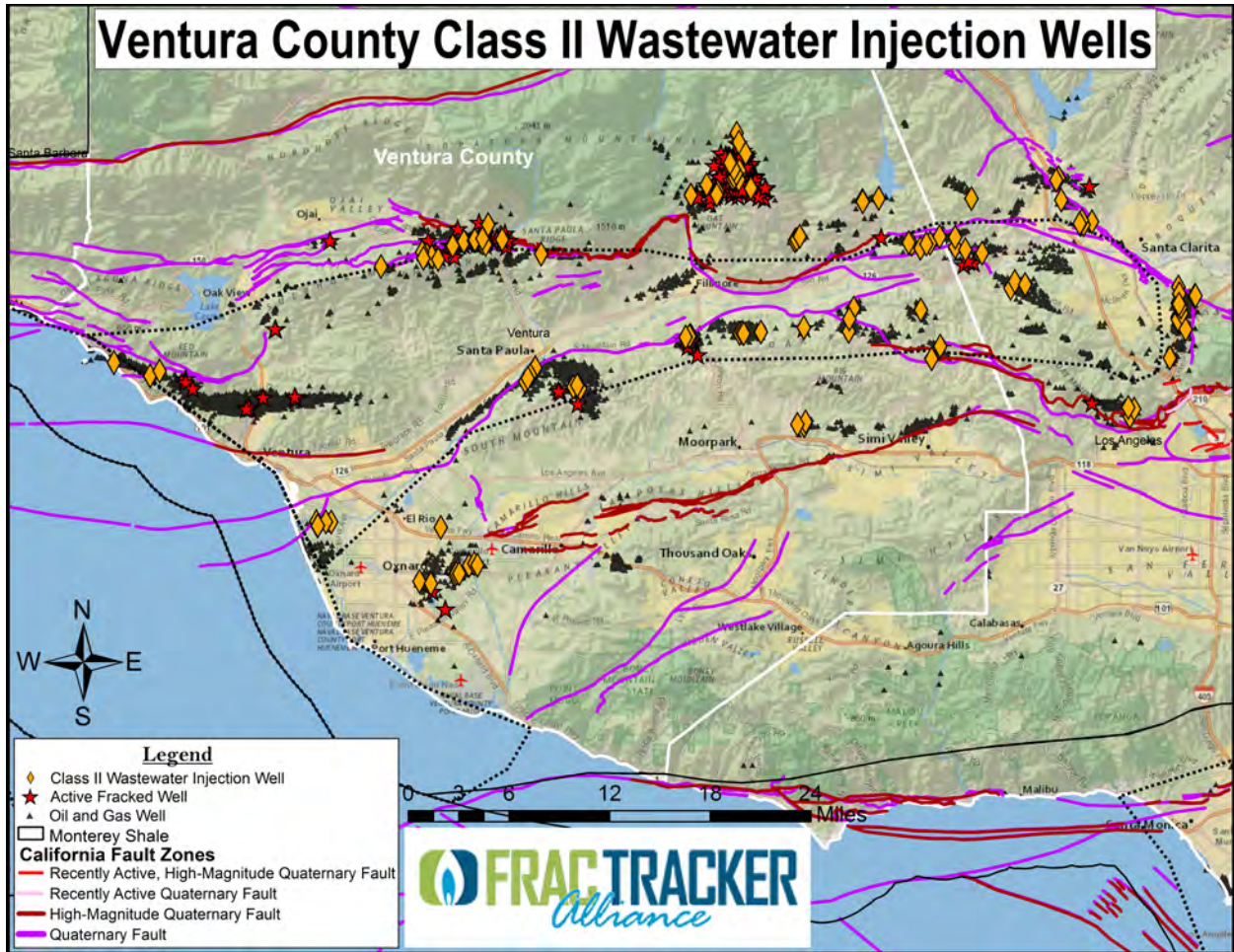


FIGURE 6. Ventura County Faults with Class II Wastewater Injection Wells and Fracked Wells

Los Angeles County: One of the main areas of concern lies in Los Angeles County where underground injection wells and oil and gas wells subjected to hydraulic fracturing and acidizing are located very near faults that have been shown to be active in the past 150 to 200 years (Figure 7).

The Inglewood oil field, which lies just southwest of downtown Los Angeles and north of the Long Beach area, is littered with disposal wells that receive millions of gallons of wastewater every year. Estimates by the CGS showed a loss of nearly \$1.1 billion for the Long Beach/Los Angeles area from seismic activity in 2010 alone.⁷⁷

Were a major earthquake to occur, it could devastate the county. For example, the “ShakeOut Scenario” from the USGS and CGS estimated that a nearby M7.8 earthquake along the San Andreas fault could cause 1,800 fatalities and nearly \$213 billion in economic damages.⁷⁸ Additionally, much of Los Angeles County lies in high-hazard areas for liquefaction and landslides.

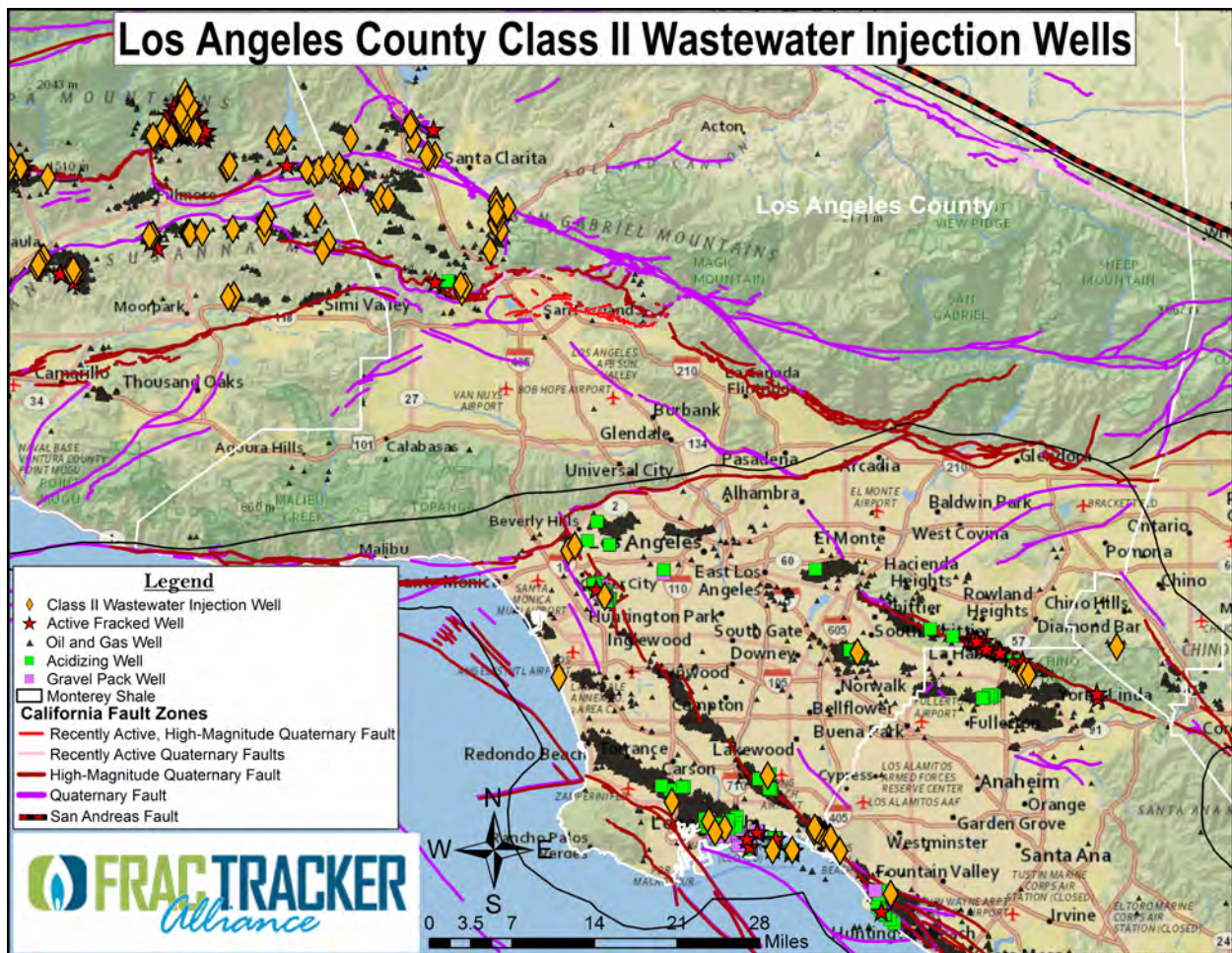


FIGURE 7. LA County Faults with Class II Wastewater Injection Wells and Fracked Wells

3. Critical gaps in monitoring and information prevent the effective detection and risk assessment of human-induced earthquakes.

Despite the advances in research linking wastewater injection wells to induced earthquakes in the Eastern and Midwestern U.S., very little research and monitoring of the earthquake risks from wastewater injection has been conducted in California, despite the state's long history with active faults. At present, no studies have evaluated the potential increase in earthquake risks from the several thousand existing wastewater injection wells, and fracked and acidized wells, in the state. In short, we simply do not know the extent to which existing oil and gas wells and wastewater injection wells in California may have already induced earthquakes.

Other fundamental questions related to the risks of induced seismicity from wastewater injection wells remain unanswered. Several key knowledge gaps exist:

- What is the largest earthquake that could be induced by wastewater injection and fracking activities?
- What is the maximum distance from a fault over which an injection well can induce an earthquake? Examples to date indicate that earthquakes have been induced up to 7.5 miles (12 kilometers) from an injection well.
- What is the time period following the initiation of injection over which earthquakes can be induced, since induced seismicity often occurs within months of initiation but can also occur after many years?
- How quickly can induced seismicity be "turned off" after stopping injection activities, since studies indicate that there may be delays of months or in some cases more than a year?
- How does the density of wells in an area affect the risk of inducing an earthquake? Does a greater density of wells increase this risk?
- What is the risk that wastewater injection wells and oil and gas production wells (including those that have been stimulated), including plugged and abandoned wells, could be damaged by earthquake activity so that they contaminate drinking water sources?
- When and why will a particular injection well induce an earthquake? Why do some injection wells induce earthquakes while others in the same region do not?



Unfortunately, much of the information needed to assess earthquake risks from wastewater injection and oil and gas production wells in California is lacking or incomplete because of (1) the state's failure to require the oil and gas industry to submit critical fluid injection data, (2) gaps in the state's earthquake monitoring networks, and (3) the limitations on collecting comprehensive information on faults and geology.

California regulations have two primary requirements related to fluid injection data from wastewater injection wells: (1) the permit for an injection well must include an injection plan with an estimate of the maximum-anticipated surface injection pressure and daily rate of injection, and an analysis of the injection liquid,⁷⁹ and (2) “data shall be maintained to show performance of the project and to establish that no damage to life, health, property, or natural resources is occurring by reason of the project.”⁸⁰ At present, California only requires industry to submit coarse-scale monthly injection volumes and wellhead pressures,⁸¹ which makes it difficult to determine whether a particular wastewater injection well may have induced an earthquake.

The quantity and distribution of seismic monitoring stations are critical for accurately characterizing the seismicity of a region and determining whether an earthquake is natural or induced. In California, monitoring and reporting of earthquake activity is coordinated under the California Integrated Seismic Network (CISN), a public and private network of monitoring stations.⁸²

According to the CISN, the number, type, and distribution of seismic stations are sparse in many parts of the state, and considered inadequate for “producing the best quality of earthquake information from all parts of the state.”⁸³ Collecting data on smaller magnitude earthquakes between magnitudes 1.5 and 2 is particularly important since these smaller earthquakes are much more common than larger ones, can provide warnings that larger magnitude earthquakes are coming, and allow for the statistically robust detection of induced earthquakes.

Critical information on faults and geology is also lacking. California’s fault maps are not complete. Some potentially destructive fault types, such as strike-slip faults and blind thrust faults, can be difficult to detect even with traditional seismic imaging technology.⁸⁴ Modern 3-D seismic imaging technology that allows for better fault detection is very costly, making it unlikely to be commonly used. There are technological limitations on collecting information on the geological characteristics related to induced seismicity, including pore pressure, permeability, existing stresses, and hydrological connectivity to deeper faults.

4. California regulations do not address the risks of induced earthquakes from wastewater injection wells or fracking.

Underground injection wells for oil and gas wastewater are regulated by the federal Safe Drinking Water Act’s Underground Injection Control Program (UIC) and are classified as Class II wells. The EPA granted the State of California primacy to implement the UIC Class II program in California in 1982.⁸⁵ The federal UIC Class II regulations and California’s UIC Class II program do not adequately address the risks of induced seismicity from wastewater injection wells.

Neither EPA’s federal regulations for Class II wells nor California’s UIC Class II program contain provisions specific to seismicity, and neither require operators to collect and submit the information needed to assess the risks of induced seismicity. Class II provisions can be compared to the UIC Class I program, which covers hazardous and non-hazardous waste from industrial and municipal sources.⁸⁶ Because



wastewater from oil and gas production was exempted from hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA), it is not classified as “hazardous” regardless of its composition and is not required to be disposed of under the more stringent requirements of the UIC Class I program.⁸⁷

UIC Class I regulations include requirements for minimizing earthquake risk during well siting, including studies to demonstrate that the injection area has low background seismicity and that the proposed injection will not induce earthquakes.⁸⁸ Rules for Class I wells require geologic analysis of a much larger area surrounding each well to demonstrate that hazardous materials will not move out of the injection zone. They also mandate more stringent protocols for construction, operation, testing, and monitoring, as well as monitoring of the well and groundwater after the well is plugged. The weaker regulations for Class II wastewater injection wells may increase the risks of inducing earthquakes and contaminating drinking water.

Current DOGGR regulations for Class II wastewater injection wells are inadequate for protecting against the risks of induced earthquakes. The regulations related to earthquake risks only require that applications for injection projects include a map showing “reservoir characteristics such as... faults,”⁸⁹ without providing guidance on how to evaluate faults. Moreover, DOGGR only requires the industry to submit coarse-scale, monthly fluid injection volume and wellhead pressure data,⁹⁰ which makes it difficult to determine whether a particular wastewater injection well may have induced an earthquake.⁹¹

Notably, DOGGR does not require any seismic monitoring at or near wastewater injection wells, nor does it conduct any macro-level analysis — for multiple injection projects or on the field level — of the potential seismic impacts based on the planned or reported injection data.⁹² All analysis of these data is on a project only level, which does not address any changes in seismic risk due to high concentrations of disposal well projects within a given field or area, or how neighboring injection projects interact on a cumulative level with surrounding faults.

In sum, although the regulations state that DOGGR should maintain data “to establish that no damage to life, health, property, or natural resources is occurring by reason of the project,”⁹³ DOGGR does not require the collection and assessment of the geological or fluid injection data needed to adequately evaluate the risks from induced earthquakes, or detect whether induced earthquakes are occurring.

Additionally, in July 2011, Environmental Protection Agency’s Region 9 found DOGGR’s implementation of its Class II program inadequate in several regards.⁹⁴ Specifically, the critique highlights DOGGR’s one-size-fits-all Area of Review (AOR) standard that only requires review of a quarter-mile radius around the well, which could result in insufficient analysis of surrounding geologic features such as faults.⁹⁵ DOGGR has no systematic process for assessing geologic features outside of the quarter-mile AOR.⁹⁶ It appears that this process is ad-hoc and not adequate for identifying important geologic features outside of the quarter-mile radius AOR, and the potential for induced seismic events on faults more than a quarter-mile away from a disposal well. Due to the urgency of the



identified deficiencies, the EPA requested that DOGGR provide an “action plan” to address them no later than September 1, 2011.⁹⁷ Despite the passage of more than two years, DOGGR has to date failed to bring its program into compliance with federal requirements.

DOGGR’s November 2013 proposed regulations for well stimulation touch briefly on earthquake risks associated with well stimulation activities, but do not require any seismic monitoring to detect induced seismicity and mandate no action to respond to or potentially mitigate human-induced earthquakes.⁹⁸ The proposed regulations require the following:

- that evaluation prior to well stimulation include a review of all faults within a radius of twice the anticipated well-stimulation treatment length (Section 1784), and
- that the report submitted within 60 days of ending a well stimulation treatment will note if “data from the USGS indicates that, since the commencement of a well stimulation treatment, any earthquake of M2.0 or greater has occurred in the area of the well stimulation treatment radius” (Section 1789).⁹⁹



In 2012, the National Academy of Sciences (NAS) recommended that states and regulators should take steps to prevent human-induced earthquakes.¹⁰⁰ The NAS panel was chaired by Colorado School of Mines professor Murray Hitzman, who cautioned that earthquakes associated with drilling can pose a risk to public health and safety.¹⁰¹

California oil and gas regulators have ignored these recommendations. State officials have said they don’t need to look at injection wells and earthquakes, stating that the current rules are sufficient. In 2012, DOGGR spokesman Don Drysdale stated: “While seismicity is not specifically mentioned in the California Code of Regulations, DOGGR believes it is adequately addressed. Operators must evaluate oil and gas reservoirs prior to injection, and that evaluation includes faulting.”¹⁰² Not only has DOGGR failed to provide guidance or regulation that makes clear to the regulated community how to evaluate “faulting,” the agency does not appear to have given much consideration to the risks associated with induced seismicity related to wastewater injection in California, or the risks of well-casing failure in areas that are notable for significant seismic activity.

5. The best way to protect Californians is to halt hydraulic fracturing, acidizing, and other unconventional oil and gas recovery techniques.

Fracking and other unconventional oil and gas extraction techniques are accompanied by numerous risks, including climate disruption, air and water pollution, public health impacts, the use of scarce water resources, and the production of billions of gallons of contaminated wastewater. New and ongoing research has established that much of the increased earthquake activity, and many of the large earthquakes in the Eastern and Midwestern U.S. where fracking-enabled oil and gas production has boomed, can be attributed to the underground injection of wastewater, providing yet more

evidence of the negative consequences of fracking, acidizing, and other unconventional extraction techniques.

Our analysis of wastewater injection wells and faults in California found that 87 wastewater injection wells are within 1 mile of a recently active fault, 350 wells are within 5 miles, and 834 wells are within 10 miles. The proximity between many existing wastewater injection wells and recently active faults raises significant cause for concern over the potential for these wells to induce earthquakes.

In California, inadequate monitoring and research, fundamental knowledge gaps, and poor regulation indicate that Californians are not being protected from the earthquake risks posed by wastewater injection wells and fracking. Yet the state may be on the verge of rapid expansion of fracking and other techniques that will dramatically increase the use of wastewater injection wells.

California's current regulations do not adequately address the risks of induced earthquakes from wastewater injection wells and fracking. Additionally, California's proposed well stimulation regulations do almost nothing to reduce the risk of induced seismicity. The proposed DOGGR rules on well stimulation do not mandate the collection and assessment of data to proactively evaluate seismic risk during siting of wells, nor do they require seismic monitoring before, during, or after well operation or actions to respond to and mitigate potential induced-earthquake activity.

Induced earthquakes can impose large safety and economic costs on the public. Earthquakes induced by wastewater injection and fracking can affect a broad area beyond the well, causing damage to homes, workplaces, infrastructure, and potentially cause injury or devastating loss of human life. The public can also pay a high economic price. In response to the earthquake swarms occurring in Oklahoma, the state insurance commissioner recommended that Oklahomans buy earthquake insurance, which comes with prohibitive out-of-pocket costs to repair earthquake damage due to high deductibles,¹⁰³ as well as skyrocketing insurance rates near earthquake epicenters.¹⁰⁴

Through inaction and failure to address the potential risks, the state has in effect transferred to the public many of the potential risks and costs associated with induced seismicity, well-casing failure, and associated leaks that might be caused by earthquakes. Without effective monitoring or regulatory systems in place, those harmed by property damage, water contamination, or other harm will likely face daunting challenges to demonstrating that oil and gas operations caused the harm. By failing to require adequate monitoring and through lack of oversight, California's Department of Conservation fails to comply with its legal mandate to protect public safety and welfare. Furthermore, the state enables companies that profit from oil and gas production to transfer the risks associated with seismicity to the public.



It has been suggested that earthquake risks from wastewater injection wells can be managed if the industry follows a strict series of steps for study and planning prior to injection, performs monitoring in areas where seismicity might be triggered, and establishes protocols for responding, including potential well abandonment if induced seismicity occurs.¹⁰⁵ Existing and proposed California regulations do not require oil and gas operators to take any of these steps. Instituting this system would require far-reaching changes to business-as-usual practices that work in the industry's favor.

Implementing the best-possible system to monitor and manage earthquake risks from wastewater injection wells and fracking could reduce — but not eliminate — the risks to Californians. There are significant technological and cost limitations for locating faults and characterizing geology, as well as large knowledge gaps, which limit the ability to effectively address the risks. Moreover, even the best monitoring and management system would still place safety and economic burdens on the public. Due to these limitations, DOGGR cannot safely regulate induced seismicity.

In light of the known environmental and health risks from unconventional extraction and wastewater disposal, the link between wastewater injection wells and earthquakes in other states, the potential for a huge expansion of drilling and wastewater production in the Monterey Shale, and the gaps in scientific knowledge regarding induced seismicity, the best way to protect Californians is to halt hydraulic fracturing, acidizing, and other unconventional oil and gas recovery techniques. Moreover, no oil and gas wastewater disposal should be allowed that does not account for all risks, including seismic risks.

Acknowledgements

We would like to thank our supporters for their generosity. We would like to thank the FracTracker Alliance for developing the [California Geological Hazards Map](#), and the [Injection Wells and Hydraulic Fracturing in California's Fault Zones](#) maps. We also thank Curt Bradley (Center for Biological Diversity) for assistance with the GIS analyses.

Appendix A: Research and Methodology

The data used to generate the “[California Geological Hazards](#)” and “[Injection Wells and Hydraulic Fracturing in California's Fault Zones](#)” maps on FracMapper come from several sources, including DOGGR, CGS, and USGS. Several map layers were downloaded as shapefiles and imported directly into ArcGIS without amendments, while other datasets were aggregated, queried or significantly edited to produce the map layers.

The well-site locations were downloaded as the full DOGGR dataset, available as “[AllWells.zip](#).” The DOGGR database was queried to separate the individual well-types into the various map layers, and differentiate between new, active, idle, plugged, and buried wells. “New” wells have been permitted, but have not yet been drilled. The permit is valid for one year, or up to two years upon request. The database includes an identifier for hydraulically fractured wells; these wells were isolated and then combined with the [SkyTruth.org](#) database of hydraulically fractured wells, which they extract from [FracFocus.org](#). The hybrid dataset can be downloaded from FracTracker ([CA Hydraulically Fractured Wells](#)). An additional well-site database showing well sites within the South Coast Air Quality Monitoring District is also projected in the maps. The California high-magnitude quaternary faults map layer was generated by clipping the USGS [dataset](#) for the entire United States. The dataset of “Named California Faults” also used for the proximity analysis was retrieved from CGS. The [Hayward fault](#)

shapefile was downloaded from USGS as a package also containing landslide hazard zones. The “Named Faults” dataset that was used for part of the proximity analysis was produced by eliminating all unnamed quaternary fault-lines from the [CGS fault database](#).

The statewide shaking hazards map layers estimate the amplification based on the underlying geology of the soil. A research group consisting of both USGS and CGS geologists developed [risk hazards available as shapefiles](#) for both high frequency and low frequency seismic events. High frequency shaking poses a hazard for short building structures, while low frequency shaking is the most hazardous to large multi-story cityscape buildings. For the Bay Area and East Bay, additional shaking hazards analyses have been completed. Liquefaction risks have been estimated by USGS and CGS specifically for the [Bay Area](#), Alameda County and multiple fault-slip scenarios for [Santa Clara](#) in separate assessments. All shapefiles are viewable individually in the [California Geological Hazards Map](#).

There are no regional liquefaction risk estimate maps available outside of the Bay Area, although the CGS has identified regions of liquefaction and landslide hazards zones for the metropolitan areas surrounding the Bay Area and Los Angeles. These maps outline the areas where liquefaction and landslides can be expected given a standard set of conservative assumptions. These [datasets](#) are only available via individual 7.5-minute quadrangles. To produce the map layers FracTracker aggregated the quadrangles, and combined the data into unified datasets, downloadable here; [Landslide and Liquefaction](#).

For the proximity analysis of Class II wastewater injection wells and faults, we used the most recently updated dataset from DOGGR, posted [9/27/13](#), which identified 2,583 total Class II water injection wells. Of those, 2,578 entries had latitude/longitude data, with 1,473 wells listed as “active,” 80 listed as “new,” and 1,031 listed as “plugged.” The proximity analysis included the 1,553 wells listed as “active” or “new.” We used the North American Datum 1983 State Plane California IV FIPS 0404 projection because the majority of Class II Water Disposal wells are located in Kern County. The analysis was conducted using ESRI’s ArcGIS ArcMap V. 10.1 software. We used two fault databases: (1) the California Geological Survey 2010 Fault Activity Map of California, and (2) the U.S. Geological Survey Quaternary Fault and Fold Database of the U.S. Buffers were created around the Class II Injection Well shapefiles, and the ‘intersect’ function was used to generate the proximity datasets. Database management was conducted using IBM SPSS Statistics v.20 software.

Appendix B: Analysis of the Distances of All (Active, New, Idle, Plugged, and Buried) Class II Injection Wells to Faults

This Appendix presents analyses similar to those presented for active and new Class II wastewater injection wells, but includes both active and inactive wastewater injection wells, including active, new, idle, plugged, and buried wells, totaling 2,578 wells with location data.

Our analysis shows that 1,177 (46 percent) of California’s 2,578 active and inactive wastewater injection wells are within 10 miles of a recently active fault that has caused an earthquake in the past 200 years, 527 wells (20 percent) are within 5 miles, and 112 wells (4 percent) are within 1 mile (Table 1). Of added concern, 115 wells are within 10 miles of a recently active, high-magnitude fault that has

caused an earthquake greater than M6 in the past 150 years, 94 wells are within 5 miles, and 3 wells are within 1 mile.

When all faults are considered, our analysis found that 1,936 active and inactive wastewater injection wells (75 percent) are within 10 miles of a Quaternary fault, 1,422 wells (55 percent) are within 5 miles, and 527 wells (20 percent) are within 1 mile (Table 2). Of these, 1,001 wells are within 10 miles of a high-magnitude Quaternary fault that has caused an earthquake greater than M6 in the past 1.6 million years, 606 wells are within 5 miles, and 135 wells are within 1 mile.

| TABLE 1. Number of active and inactive wastewater injection wells within 1, 5, and 10 miles of recently active faults that have caused earthquakes in the past 200 years | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| NUMBER OF WELLS (PERCENT) | DISTANCE TO FAULT |
| 112 (4%) | Within 1 mile |
| 527 (20%) | Within 5 miles |
| 1,177 (46%) | Within 10 miles |

| TABLE 2. Number of active and inactive wastewater injection wells within 1, 5, and 10 miles of Quaternary faults that have caused earthquakes in the past 1.6 million years | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| NUMBER OF WELLS | DISTANCE TO FAULT |
| 527 (20%) | Within 1 mile |
| 1,422 (55%) | Within 5 miles |
| 1,936 (75%) | Within 10 miles |

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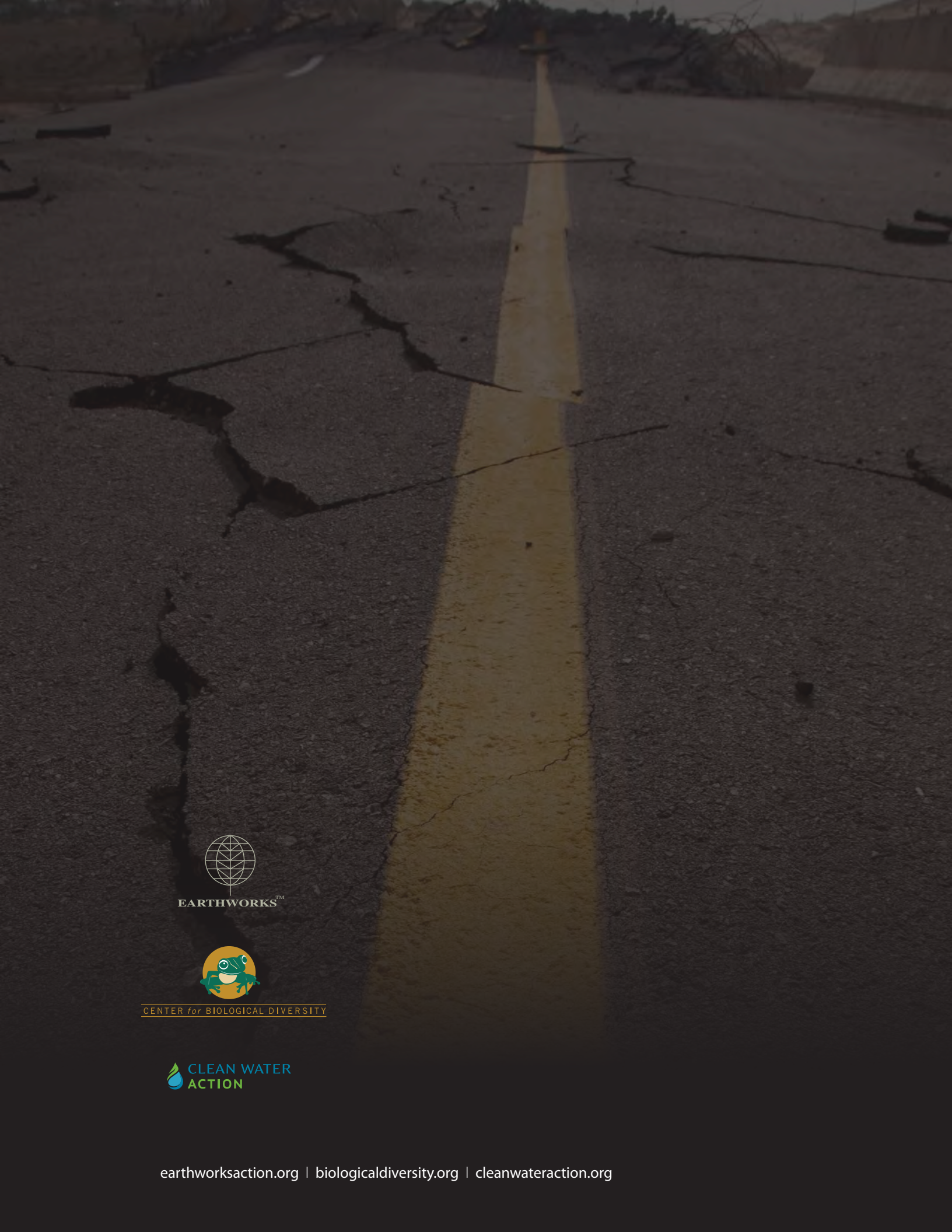
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Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 2:19 PM
To: Simmons, Carrie
Subject: FW: General Plan/EIR
Attachments: page3image3766736.png; page4image1774048.jpeg; page1image1665632.png; page3image3766944.png; page3image3744272.png; page3image3743440.png; page2image1668752.png

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
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From: Meghan McMonigle <meghancmmonigle@gmail.com>
Sent: Thursday, February 27, 2020 2:18 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Bev Denicola <de.nicola@cox.net>
Subject: General Plan/EIR

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

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” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts

and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
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February 19, 2020



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Page 2 of 4

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The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

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This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural



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In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

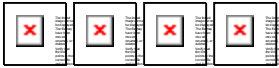
But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.

- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

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 The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that "...a reduction in available water resources for irrigation" is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion.
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CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

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Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director



In support of this letter-
Meghan Chambers McMonigle

--

Meghan McMonigle

KTLA 5 Technology Segment Producer

5800 Sunset Blvd. Los Angeles, CA 90028 | *Office: 323-460-5520 | Cell: 323-371-4042*



Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 2:20 PM
To: Simmons, Carrie
Subject: FW: Comments on General Plan/EIR

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Katie Mcmonigle <katiemcmonigle.vb@gmail.com>
Sent: Thursday, February 27, 2020 2:18 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: de.nicola@cox.net
Subject: Comments on General Plan/EIR

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

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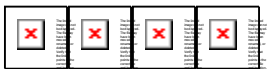
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Sincerely,

Louise Lampara Executive Director



In support of this letter-
Mary Katherine Chambers McMonigle

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 2:20 PM
To: Simmons, Carrie
Subject: FW: General Plan / EIR Comments

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: de.nicola@cox.net
Subject: General Plan / EIR Comments

To: Susan Curtis-

County failed to evaluate mitigation measures for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build-out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

Mary Katherine Chambers McMonigle

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 7:54 AM
To: Simmons, Carrie
Subject: FW: Comment Draft EIR Ag - JDietrick & RWhitehurst
Attachments: VC2040 Comment EIR-Ag JDietrick & RWhitehurst.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Jan Dietrick <jdietrick9@gmail.com>
Sent: Thursday, February 27, 2020 12:51 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>
Subject: Comment Draft EIR Ag - JDietrick & RWhitehurst

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

February 27, 2020

Dear Susan Curtis,

Our comments are about the Draft Environmental Impact Analysis of the Agriculture Element of the VC2040 General Plan. We have serious concerns about other chapters, especially Water Resources, but time does not permit us to develop comments.

Before commenting on the topics of food security, resilience, carbon sequestration, regenerative agriculture, inorganic nitrogen based fertilizer, compost, cover crops and low- and no-till, agricultural land conservation and preservation, and Integrated Pest Management, we preface by saying that everything in the General Plan must be seen through the lens of the global climate and ecological crisis and the need for leadership so that the people of Ventura County are confident that the community response meets some minimum standard of social and environmental justice. Climate

change necessitates an examination of personal values and a shift of mindset about agriculture policy at the local level.

The VC2040 Environmental Impact Report reflects a great deal of this needed shift, but we see omissions in the coverage of existing conditions in the Background Report and in the scope and/or targeting of the goals, policy and programs. There are five programs added to the EIR that are not in the Draft Plan, so we refer to the EIR except where we have comments about the Goal statements in the Plan. The recommendation we hope you take most seriously is to create a separate Goal for Integrated Pest Management.

Planning that matches the climate crisis is vital. This is not clear enough in the Background Report. The most recent report of the Intergovernmental Panel on Climate Change (IPCC) states that the climate problem points *first* to what we do on the land. The USDA Economic Research Service reported on the impacts on prices of food, fiber and energy, and agricultural incomes, as well as the environment. “How farmers respond, or adapt—possibly mediated by policy and technology changes—will ultimately determine the impact of these altered growing conditions on production, natural resources, and food security” Report No ERR-266 “Climate Change and Agricultural Risk Management Into the 21st Century” projects an increase in the cost of the Federal Crop Insurance Program due to greater insured value and yield variability resulting from climate change.

FOOD SECURITY

Lack of secure food system nationally affects local already extreme insecurity. The Union of Concerned Scientists reported in March 2019 that the already highly degraded industrial model of US agriculture—“a model that neglects soil, reduces diversity, and relies too heavily on fertilizers and pesticides”—makes US farms even more vulnerable to the impacts of climate change. Ventura County depends on the rest of the nation and other countries for 85% of its food supply. Our reliance on international markets and international trade leaves our local economy vulnerable to disruptions such as we must anticipate with the Covid-19 coronavirus.

We need to accelerate localizing our food supply as the focus for food security. It would help to delete the false narrative in Goal 8.4 that local farmers are feeding the local people. If there is no food coming or going, farms are not going to be a resource, which is ridiculous in a county that can grow such a diversity of crops throughout the year.

Goal AG-4.1 needs to include all agricultural products, not just fresh produce, and real incentives and marketing campaigns will be necessary including benchmarks for increased purchase of local products by institutions. Program B to encourage sales and Program C to identify opportunities to provide local food to county agencies are good, but they will need to be stronger. A more aggressive set of programs will be necessary to promote markets for local agricultural products to achieve the food security goal.

It is unacceptable to only “identify opportunities...to the extent feasible” to increase county procurement of local products. Feasibility is a matter of where the County decides to invest. Food security is such a priority goal that the county must invest increasingly year by year in local farmers to stimulate a market signal toward localizing our food supply.

Program F in the EIR is excellent to study and remove barriers to farm stands. The program must specifically aim to help Ventura County farmers sell their products in the county and be able to compete with farm stand operators selling products from the San Joaquin Valley, Mexico and elsewhere. Program G to study the “Farm to Front Door” business model ignores many other possible business models to connect producers and consumers and should be rewritten to be more general.

RESILIENCE

Resilience starts with farmers being informed about the climate modeling and adopting practices that increase biodiversity and enrich soil to hold carbon and water. Ventura County hired scientists to run climate models that show the changes in patterns of rainfall, drought, and extreme weather events and how that is connected to wildfires. The modeling is not found with enough detail in the VC2040 Background Report to help farmers and their advisers and representatives understand what’s ahead and why a shift in mindset about goals and effective policies and programs are needed that mitigate the climate impacts.

The Agricultural Resilience goal has one policy AG-6. 2. The plan implies that resilience can be achieved only by crop selection. Neither the goal nor the policy covers the necessity to build soil and water-holding capacity and penetration, increase biodiversity and improve the watershed to hold storm water onsite. Program O in the EIR (Program N in the Draft Policy) refers to reduced tillage but the entire policy and program should be rewritten to assure development of the full scope of important resilience strategies.

INCREASING SOIL CARBON

Carbon sequestration is a moral imperative as well as the centerpiece of resilience. The draft policy to encourage and support carbon farming is not explicit enough about the contribution farmers can make by focused effort to increase soil carbon for climate mitigation.

The California Air Resources Board is working with agencies at local levels to develop measures as outlined in Scoping Plan update and governor's Executive Order B-30-15 to reduce GHG emissions toward net carbon sequestration by California's agricultural sector. The governor's 2030 targets for GHG emission reductions focus on the role played by farmland and soil in the carbon cycle. Research is being done regarding how much GHG is being emitted and how much can be sequestered by California's agricultural lands. The words “when feasible” should be deleted from Policy AG-5. 5 and Program L and replaced by a policy and program to develop meaningful incentives.

A serious flaw in the state Healthy Soils Program is the refusal to allow applications by farmers that have previously done practices on their farm to increase soil carbon. Farmers learn most from other farmers. Our early adopters should be supported to continue to do on-farm experimentation with multi-pronged and innovative practices that to increase their soil carbon and other benefits. The County should create a program complementary to the state program to support exemplary farmers to expand local experiences with carbon sequestration even though they are disqualified (because they are innovators) from the state Greenhouse Gas Reduction Fund programs.

REGENERATIVE AGRICULTURE

Regenerative practices are essential for farmland preservation as well as resilience and food security, whether or not you use that term. The Planning Commission and the Board approved the addition of the word regenerative to the AG-5 goal ‘Sustainable Farming and Ranching’. The term does not appear in the draft. Goals inherent in the word regenerative are not covered in the draft policy or programs—**to increase biodiversity and enrich soils to hold more carbon.** Increasing soil carbon and above-ground biomass may be implied by use of the term ‘Carbon Farming’ but these outcomes should be explicit.

In contrast with regenerative practices, what people understand about sustainable practices does not necessarily include increasing soil carbon and above-ground biomass. The USDA definition of sustainable agriculture: “Make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls. Sustain the economic viability of farm operations. Enhance the quality of life for farmers and society as a whole.” Organic farming used to require soil as the growing medium, but not any longer. Using the term “truly sustainable” as in the draft goal still does not assure the features of regenerative agriculture encompassing a robust response to climate change by mitigating greenhouse gas emissions. Prohibiting the use of the word regenerative results in a loss of meaningful guidance for facing today’s challenges. It can be made up for in Goal 5 by at least assuring in the policies and programs its key features of increasing biodiversity, enriching soils in ways that progressively increase soil carbon, increasing above-ground biomass, and improving watersheds.

Biodiversity here refers to everything from soil microbes to plant roots in the soil to above-ground cropping to include 1 to 5% planted for beneficial insect habitat, to include as many native plants as possible. Other practices to increase biodiversity are crop rotation, perennial mowed cover crop in orchards, agroforestry, silvopasture, and interplanting multiple species or varieties of crops. Not only does biodiversity enhance biological function, especially that of carbon sequestration and nutrient cycling, and improve resistance to all risks from diseases to floods, it also improves economic stability by spreading economic risk and buffering against pest invasions and extreme weather events.

INORGANIC NITROGEN BASED FERTILIZERS

Inorganic nitrogen contributes to greenhouse gas emissions and is often unnecessary when regenerative practices are used. The energy used to manufacture and transport artificial N and phosphate fertilizers are major contributors to climate change. Research in pasture and cover crops show fertility is achievable with no nitrogen inputs, artificial or biological. The greater the biodiversity the greater the carbon sequestration, nitrogen fixation, and other nutrient cycling. There is misinformation being shared by trusted experts about the potential to increase soil carbon on Ventura County farms. Research shows that all nutrients, including phosphorus, calcium, and sulfur, as well as nitrogen, are available in soils and can be mobilized by growing the microbial diversity via the “liquid carbon pathway” fed by photosynthesis by a diversity of growing plants. Research and demonstration of this kind should be carried out, particularly in our orchards, vineyards, and other perennial crops.

It is unacceptable as proposed in Policy AG-5.1 to simply “encourage reduced fertilizer use and use of compost and enhanced efficiency fertilizers.” This policy disregards the most cost-effective Best Management Practices to reduce inorganic nitrogen fertilizer use by cover cropping and crop rotation.

The climate mitigation potential as well as the feasibility and the co-benefits associated with avoiding inorganic nitrogen suggest that AG-5.1 should be changed from ‘shall encourage’ to ‘shall study, monitor and set benchmarks’ for reducing use of inorganic nitrogen while encouraging the organic fertility approaches described on page 9-32 of the Background Report. Goals for reduction must show up in the GHG inventory. The inventory reflects no anticipated decrease in use of artificial nitrogen fertilizer for the next 20 years, one of many errors and omissions in the inventory.

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As the most certain way to preserve agricultural land, the General Plan should create baselines and goals and targets for carbon sequestration that is an indicator of the value of farmland, with its co-benefits of preventing pest and disease, erosion and nutrient and water loss prevention, and increasing resilience to drought, flooding and resilience to temperature extremes. If the “right-to-farm” implies that Prime and Important Farmland soil is laid bare, compacted and/or regularly tilled, and exposed to toxic inputs including herbicides, synthetic fertilizer causing it to be devoid of life and subject to erosion and crop failure under extreme weather conditions, then there is no land preservation policy able to save it from being abandoned or sold for development.

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use of pesticides. The best alternatives to pesticides require attention to soil building and crop plans that forecast insect movement in the farmscape, in other words systems thinking rather than the common replacement of an organic pesticide for higher risk pesticide.

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Policy and programs are needed that lead the entire community of regulators, consultants, farmers and consumers along the Roadmap for Integrated Pest Management in the shift of mindset about pest management described on page 11 that flips the risks and incentives to favor the most effective alternatives that keep pests and disease below economic thresholds.

While developing protocols for guidance, discussion, and documentation of the consideration of alternatives within the definition of IPM, at the very minimum there must be a framework for analyzing cumulative effects of more than one aerial or vapor-borne pesticide and the effects from pesticides used in a non-attainment area for other air pollutants. There is at least one scientifically documented case study in the county of the failure to consider cumulative effects and other cases where studies are urgently needed as a result of the calendar spraying for Asian citrus psyllid.

The policy and programs relating IPM to the general public should also look deeper to support the shift in mindset described in the Roadmap to IPM. It is just scraping the surface “to provide information on IPM and agriculture produces and practices” as stated in Policy AG 3.3. IPM policies should be placed under a separate new goal with policies aligned with the state Roadmap for Integrated Pest Management recommendations. See at https://www.cdpr.ca.gov/docs/pestmgt/ipm_roadmap.pdf

Excerpting ideas from pages 16 and 17 of the Roadmap, for example:

- a. **Hire an IPM coordinator and revive the county’s IPM Committee** with county public participation to promoting IPM practices
- b. **Drive demand for IPM in the value chain** by coordinating efforts with key organizations to link IPM and regenerative and sustainable agriculture initiatives with retail brands and raise awareness among commodities and allied groups such as packers and shippers, retailers, and trade partners

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- g. **Make practitioners more effective voices** for IPM by training frontline workers in agriculture, landscape and structural IPM
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Sincerely,

Jan Dietrick, Master of Public Health, and
Ron Whitehurst, Licensed Pest Control Advisor
Co-Owners of Rincon-Vitova Insectaries, Inc.
108 Orchard Dr
Ventura, CA 93001
805-746-5365

February 27, 2020

Dear Susan Curtis,

Our comments are about the Draft Environmental Impact Analysis of the Agriculture Element of the VC2040 General Plan. We have serious concerns about other chapters, especially Water Resources, but time does not permit us to develop comments.

Before commenting on the topics of food security, resilience, carbon sequestration, regenerative agriculture, inorganic nitrogen based fertilizer, compost, cover crops and low- and no-till, agricultural land conservation and preservation, and Integrated Pest Management, we preface by saying that everything in the General Plan must be seen through the lens of the global climate and ecological crisis and the need for leadership so that the people of Ventura County are confident that the community response meets some minimum standard of social and environmental justice. Climate change necessitates an examination of personal values and a shift of mindset about agriculture policy at the local level.

The VC2040 Environmental Impact Report reflects a great deal of this needed shift, but we see omissions in the coverage of existing conditions in the Background Report and in the scope and/or targeting of the goals, policy and programs. There are five programs added to the EIR that are not in the Draft Plan, so we refer to the EIR except where we have comments about the Goal statements in the Plan. The recommendation we hope you take most seriously is to create a separate Goal for Integrated Pest Management.

Planning that matches the climate crisis is vital. This is not clear enough in the Background Report. The most recent report of the Intergovernmental Panel on Climate Change (IPCC) states that the climate problem points *first* to what we do on the land. The USDA Economic Research Service reported on the impacts on prices of food, fiber and energy, and agricultural incomes, as well as the environment. “How farmers respond, or adapt—possibly mediated by policy and technology changes—will ultimately determine the impact of these altered growing conditions on production, natural resources, and food security” Report No ERR-266 “Climate Change and Agricultural Risk Management Into the 21st Century” projects an increase in the cost of the Federal Crop Insurance Program due to greater insured value and yield variability resulting from climate change.

FOOD SECURITY

Lack of secure food system nationally affects local already extreme insecurity.

The Union of Concerned Scientists reported in March 2019 that the already highly degraded industrial model of US agriculture—“a model that neglects soil, reduces

diversity, and relies too heavily on fertilizers and pesticides”—makes US farms even more vulnerable to the impacts of climate change. Ventura County depends on the rest of the nation and other countries for 85% of its food supply. Our reliance on international markets and international trade leaves our local economy vulnerable to disruptions such as we must anticipate with the Covid-19 coronavirus.

We need to accelerate localizing our food supply as the focus for food security. It would help to delete the false narrative in Goal 8.4 that local farmers are feeding the local people. If there is no food coming or going, farms are not going to be a resource, which is ridiculous in a county that can grow such a diversity of crops throughout the year.

Goal AG-4.1 needs to include all agricultural products, not just fresh produce, and real incentives and marketing campaigns will be necessary including benchmarks for increased purchase of local products by institutions. Program B to encourage sales and Program C to identify opportunities to provide local food to county agencies are good, but they will need to be stronger. A more aggressive set of programs will be necessary to promote markets for local agricultural products to achieve the food security goal.

It is unacceptable to only “identify opportunities...to the extent feasible” to increase county procurement of local products. Feasibility is a matter of where the County decides to invest. Food security is such a priority goal that the county must invest increasingly year by year in local farmers to stimulate a market signal toward localizing our food supply.

Program F in the EIR is excellent to study and remove barriers to farm stands. The program must specifically aim to help Ventura County farmers sell their products in the county and be able to compete with farm stand operators selling products from the San Joaquin Valley, Mexico and elsewhere. Program G to study the “Farm to Front Door” business model ignores many other possible business models to connect producers and consumers and should be rewritten to be more general.

RESILIENCE

Resilience starts with farmers being informed about the climate modeling and adopting practices that increase biodiversity and enrich soil to hold carbon and water. Ventura County hired scientists to run climate models that show the changes in patterns of rainfall, drought, and extreme weather events and how that is connected to wildfires. The modeling is not found with enough detail in the VC2040 Background Report to help farmers and their advisers and representatives understand what’s ahead and why a shift in mindset about goals and effective policies and programs are needed that mitigate the climate impacts.

The Agricultural Resilience goal has one policy AG-6. 2. The plan implies that resilience can be achieved only by crop selection. Neither the goal nor the policy covers the necessity to build soil and water-holding capacity and penetration, increase biodiversity and improve the watershed to hold storm water onsite. Program O in the EIR (Program N in the Draft Policy) refers to reduced tillage but the entire policy and program should be rewritten to assure development of the full scope of important resilience strategies.

INCREASING SOIL CARBON

Carbon sequestration is a moral imperative as well as the centerpiece of resilience. The draft policy to encourage and support carbon farming is not explicit enough about the contribution farmers can make by focused effort to increase soil carbon for climate mitigation.

The California Air Resources Board is working with agencies at local levels to develop measures as outlined in Scoping Plan update and governor's Executive Order B-30-15 to reduce GHG emissions toward net carbon sequestration by California's agricultural sector. The governor's 2030 targets for GHG emission reductions focus on the role played by farmland and soil in the carbon cycle. Research is being done regarding how much GHG is being emitted and how much can be sequestered by California's agricultural lands. The words "when feasible" should be deleted from Policy AG-5. 5 and Program L and replaced by a policy and program to develop meaningful incentives.

A serious flaw in the state Healthy Soils Program is the refusal to allow applications by farmers that have previously done practices on their farm to increase soil carbon. Farmers learn most from other farmers. Our early adopters should be supported to continue to do on-farm experimentation with multi-pronged and innovative practices that to increase their soil carbon and other benefits. The County should create a program complementary to the state program to support exemplary farmers to expand local experiences with carbon sequestration even though they are disqualified (because they are innovators) from the state Greenhouse Gas Reduction Fund programs.

REGENERATIVE AGRICULTURE

Regenerative practices are essential for farmland preservation as well as resilience and food security, whether or not you use that term. The Planning Commission and the Board approved the addition of the word regenerative to the AG-5 goal 'Sustainable Farming and Ranching'. The term does not appear in the draft. Goals inherent in the word regenerative are not covered in the draft policy or programs—**to increase biodiversity and enrich soils to hold more carbon.** Increasing soil carbon and above-ground biomass may be implied by use of the term 'Carbon Farming' but these outcomes should be explicit.

In contrast with regenerative practices, what people understand about sustainable practices does not necessarily include increasing soil carbon and above-ground biomass. The USDA definition of sustainable agriculture: “Make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls. Sustain the economic viability of farm operations. Enhance the quality of life for farmers and society as a whole.” Organic farming used to require soil as the growing medium, but not any longer. Using the term “truly sustainable” as in the draft goal still does not assure the features of regenerative agriculture encompassing a robust response to climate change by mitigating greenhouse gas emissions. Prohibiting the use of the word regenerative results in a loss of meaningful guidance for facing today’s challenges. It can be made up for in Goal 5 by at least assuring in the policies and programs its key features of increasing biodiversity, enriching soils in ways that progressively increase soil carbon, increasing above-ground biomass, and improving watersheds.

Biodiversity here refers to everything from soil microbes to plant roots in the soil to above-ground cropping to include 1 to 5% planted for beneficial insect habitat, to include as many native plants as possible. Other practices to increase biodiversity are crop rotation, perennial mowed cover crop in orchards, agroforestry, silvopasture, and interplanting multiple species or varieties of crops. Not only does biodiversity enhance biological function, especially that of carbon sequestration and nutrient cycling, and improve resistance to all risks from diseases to floods, it also improves economic stability by spreading economic risk and buffering against pest invasions and extreme weather events.

INORGANIC NITROGEN BASED FERTILIZERS

Inorganic nitrogen contributes to greenhouse gas emissions and is often unnecessary when regenerative practices are used. The energy used to manufacture and transport artificial N and phosphate fertilizers are major contributors to climate change. Research in pasture and cover crops show fertility is achievable with no nitrogen inputs, artificial or biological. The greater the biodiversity the greater the carbon sequestration, nitrogen fixation, and other nutrient cycling. There is misinformation being shared by trusted experts about the potential to increase soil carbon on Ventura County farms. Research shows that all nutrients, including phosphorus, calcium, and sulfur, as well as nitrogen, are available in soils and can be mobilized by growing the microbial diversity via the “liquid carbon pathway” fed by photosynthesis by a diversity of growing plants. Research and demonstration of this kind should be carried out, particularly in our orchards, vineyards, and other perennial crops.

It is unacceptable as proposed in Policy AG-5.1 to simply “encourage reduced fertilizer use and use of compost and enhanced efficiency fertilizers.” This policy disregards the

most cost-effective Best Management Practices to reduce inorganic nitrogen fertilizer use by cover cropping and crop rotation. The climate mitigation potential as well as the feasibility and the co-benefits associated with avoiding inorganic nitrogen suggest that AG-5.1 should be changed from ‘shall encourage’ to ‘shall study, monitor and set benchmarks’ for reducing use of inorganic nitrogen while encouraging the organic fertility approaches described on page 9-32 of the Background Report. Goals for reduction must show up in the GHG inventory. The inventory reflects no anticipated decrease in use of artificial nitrogen fertilizer for the next 20 years, one of many errors and omissions in the inventory.

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Sincerely,

Jan Dietrick, Master of Public Health, and
Ron Whitehurst, Licensed Pest Control Advisor
Co-Owners of Rincon-Vitova Insectaries, Inc.
108 Orchard Dr
Ventura, CA 93001
805-746-5365

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 2:31 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit VC Citizen Access



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Mary Vanoni <vanonimary@gmail.com>
Sent: Thursday, February 27, 2020 2:27 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

2040 General Plan Draft EIR Comment:

The County rushed to complete the EIR. It is too important to be done haphazardly and contain gross flaws that will impact our County so drastically.

Just a couple of the issues:

CEQA requires that proposed mitigation be both technically and economically feasible. The County's proposed mitigation measures are **infeasible**. One mitigation measure will require small development projects to purchase farmland to preserve in perpetuity. But the County didn't analyze the costs or indicate who would manage these small ag preservation parcels.

CEQA says that the mitigation cannot make the impacts worse. Shortage of farm worker housing was identified as one of the most significant issues facing agriculture in Ventura County. But mitigation proposed by the County will effectively block future farm worker housing, because these projects will bear the costs of land acquisition for preservation!

Please do what is right for Ventura County and take the time to correct and re-circulate the EIR.

Richard Atchley
Retired Carpenter, Farmer, Concerned Ventura County Resident

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From: Marjie Bartels <bartelsranch@gmail.com>
Sent: Thursday, February 27, 2020 2:30 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

Dear Ms. Curtis: The EIR is based on incomplete analysis of policies, contains several false and ill-advised policies, and fails to understand key challenges related to Ventura County.

Some of the issues are:

1. CEQA requires that the EIR contain enough detailed information to allow the reader to understand and evaluate the County's impact analysis. But the EIR and its 1000-page Background Report are filled with errors, vague statements, and outdated information. All information in the Agricultural Chapter is older than 2015! The maps in the EIR and the Background Report are such poor resolution and detail that some are blurry and illegible.
2. CEQA requires that both direct and indirect impacts be analyzed. Yet the County failed to analyze indirect impacts (complaints, competition for water supplies, theft and vandalism, etc.) on agricultural land from increased development and more urban-ag interface, because the County assumes that the Right-to-Farm Ordinance will prevent any impacts on agriculture that may occur from urban-property owner complaints.
3. CEQA says that all policies that may cause impacts to ag lands must be evaluated. But the County failed to analyze or even discuss the policies in the General Plan that will increase farming operational costs (converting ag equipment to electric, requiring all electric water pumps, increasing costs for water supply, etc.).

Please do the correct thing for Ventura County and take the time to correct and recirculate the EIR!

Marjie Bartels, Certified Organic Valencia Orange Grower in Bardsdale

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 2:39 PM
To: Simmons, Carrie
Subject: FW: SCH # 2019011026 Ventura County 2040 General Plan Update
Attachments: LA-2017-00388 Ventura Conty 2040 General Plan Update-DEIR.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



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From: Lin, Alan S@DOT <alan.lin@dot.ca.gov>
Sent: Thursday, February 27, 2020 2:38 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; Downing, Clay <clay.downing@ventura.org>
Cc: Duong, Frances M@DOT <Frances.Duong@dot.ca.gov>
Subject: FW: SCH # 2019011026 Ventura County 2040 General Plan Update

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Ms. Curtis and Mr. Downing,

Attached please find Caltrans comment letter for your record.

Please let us know if you have any question.

Thank you!

Alan Lin, P.E.
Project Coordinator
State of California
Department of Transportation

District 7, Office of Transportation Planning
Mail Station 16
100 South Main Street
Los Angeles, CA 90012
(213) 897-8391 Office
(213) 897-1337 Fax

From: Lin, Alan S@DOT
Sent: Thursday, February 27, 2020 2:36 PM
To: 'OPR State Clearinghouse' <State.Clearinghouse@opr.ca.gov>
Subject: SCH # 2019011026 Ventura County 2040 General Plan Update

Hard copy is sent to the Lead Agency!

Alan Lin, P.E.
Project Coordinator
State of California
Department of Transportation
District 7, Office of Transportation Planning
Mail Station 16
100 South Main Street
Los Angeles, CA 90012
(213) 897-8391 Office
(213) 897-1337 Fax

DEPARTMENT OF TRANSPORTATION**DISTRICT 7**

100 S. MAIN STREET, MS16
LOS ANGELES, CA 90012
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TTY 711
www.dot.ca.gov



*Making Conservation
a California Way of Life.*

February 27, 2020

Ms. Susan Curtis
County of Ventura
800 S. Victoria Ave., L #1740
Ventura, CA 93009

RE: Ventura County 2040 General Plan Update
Vic. Countywide
SCH # 2019011026
Ref. GTS # VEM-2017-00228AL-NOP
GTS # VEN-2017-00388AL-DEIR

Dear Ms. Curtis:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project is a comprehensive update of the County of Ventura General Plan, also known as the 2040 General Plan. The 2040 General Plan will set forth the County's vision of its future and identify the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including but not limited to land use, climate change, agriculture, transportation, hazards, public facilities, health and safety, environmental justice, and resource conservation out to the year 2040.

The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Senate Bill 743 (2013) mandated that CEQA review of transportation impacts of proposed development be modified by using Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for all future development projects. For future project, you may reference to The Governor's Office of Planning and Research (OPR) for more information.

<http://opr.ca.gov/ceqa/updates/guidelines/>

The Lead Agency has provided a VMT analysis for this project and using 2012 Baseline Model, 2040 Ventura County General Plan Land Use Model, 2040 VCTC and 2040 SBCAG travel demand model. For further review and feedback, it would be helpful if the County can share all models and assumptions with Caltrans to validate the model results (including 2040 General Plan results on page 4.16-24) provided in section 4.16 Transportation and Traffic.

Caltrans is aware of challenges that the region faces in identifying viable solutions to alleviating congestion on State and Local facilities. With limited room to expand vehicular capacity, in general Caltrans concurs the County's policies for future developments that

should incorporate multi-modal and complete streets transportation elements that will actively promote alternatives to car use and better manage existing parking assets and policies for bicycling, pedestrian, and public transit which can allow streets to transport more people in a fixed amount of right-of-way.

We encourage the Lead Agency to integrate transportation and land use in a way that reduces Vehicle Miles Traveled (VMT) and Greenhouse Gas (GHG) emissions by facilitating the provision of more proximate goods and services to shorten trip lengths, and achieve a high level of non-motorized travel and transit use. We also encourage the Lead Agency to evaluate the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications in order to better manage the transportation network, as well as transit service and bicycle or pedestrian connectivity improvements. Moreover, we encourage mixed-use development with smart growth principle to shorten travel distance for different land uses to achieve job-and-housing balance within the County boundary.

We have the following comments and recommendations for the following policies:

Policy CTM-1.7: Pro Rata Share of Improvements. We concur that “the County shall require discretionary development that would generate additional traffic to pay its pro rata share of the cost of added vehicle trips and the costs of necessary improvements to the Regional Road Network pursuant to the County’s Traffic Impact Mitigation Fee Ordinance.” Caltrans recommend the improvements shall include the State facilities identified and approved by both agencies.

Policy CTM-2.9: State Route 118 Improvement in Saticoy Area. When the final list of improvement is approved by Caltrans and Ventura County Transportation Commission (VCTC), we recommend this list be a part of the fair share program in the County’s Traffic Impact Mitigation Fee Ordinance.

Policy CTM-2.19: Safety Metrics. We concur that “the County shall continue to examine and update safety metrics for California Environmental Quality Act (CEQA) impact analysis as appropriate. Option include but are not limited to: queue spill-back at intersections; midblock unprotected crossings; and increased crossing distances.” Caltrans recommend the safety impact analysis shall also include off-ramps, State intersections, and weaving areas on the freeway mainlines. Caltrans will provide separate consultation for any queuing analysis when needed.

Policy CTM-4.1: Reduce Vehicle Miles Traveled (VMT). We concur that “the County shall work with Caltrans and Ventura County Transportation Commission (VCTC) to reduce VMT by...”. We recommend future projects to consider additional Traffic Demand Management (TDM) options referencing to the Federal Highway Administration’s *Integrating Demand Management into the Transportation Planning Process: A Desk Reference* (Chapter 8). The reference is available online at:

<http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf>

We recommend the County to develop a monitoring program to monitor the effectiveness of TDM or Vehicle Miles Traveled (VMT) Reduction Program.

We would like the County to invite Caltrans to review and to provide consultation/feedback when the County is developing or updating the following Implementation Programs in the future.

- Implementation Program A: Traffic Impact Mitigation Fee Program.**
- Implementation Program B: Initial Study Assessment Guidelines.**
- Implementation Program C: Vehicle Miles Traveled (VMT) Reduction Program.**
- Implementation Program D: Regional Road Network Coordination.**
- Implementation Program L: Master Bicycle Network Plan.**

For Land Use and Community Character Element, we concur “**Policy LU-11.3: Design.** The County shall require new commercial and industrial developments to be designed to be generally compact, grouped and consolidated into functional units providing for sufficient off-street parking and loading facilities, maximize pedestrian and vehicle safety, reduce vehicle miles traveled (VMT), encourage electric vehicle charging, and minimize land use conflicts and traffic congestion. The County shall require that commercial and industrial discretionary development is designed to provide adequate buffering (e.g., walls, landscaping, setbacks) and operational conditions (e.g., noise, glare, and odors) on adjoining and adjacent residential area.” Again, this is where we would encourage the County to promote mixed-use development with smart growth principle to shorten travel distance for different land uses to achieve job-and-housing balance within the County boundary.

Policy HAZ-10.8: Alternative Transportation Modes. We concur that “the County shall promote alternative modes of transportation that reduce single-occupancy vehicle (SOV) travel and enhance “last-mile” transportation option to improve air quality.” We recommend

the County to develop a program to promote the alternative modes of transportation for new development projects.

For Mitigation Measure CTM-3: Revised Implementation Program CTM-C: Vehicle Miles Traveled (VMT) Reduction Program, we concur that "During implementation of the 2040 General Plan, the County shall review and update the VMT Reduction Program as warranted to provide additional mitigations and Programs." Again, we recommend the County to include Caltrans in the review and update process whenever is available.

For Mitigation Measure CTM-4: New Implementation Program CTM-X; Updated Traffic Impact Fee Mitigation Program, we concur that "the County shall require that development which adds traffic to roadways traversing within a County designated substandard roadway impact area contribute the fair share costs of any safety counter-measures that improve the safety of the impacted roadways by paying the applicable fees under the County's Traffic Impact Fee mitigation program prior to issuance of Zoning Clearance." Again, we recommend such safety improvements include the State facilities.

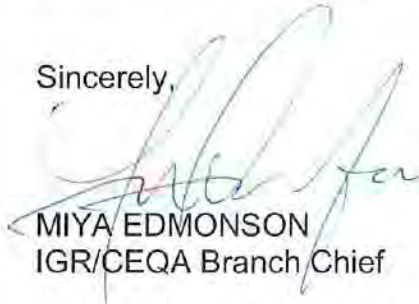
After this mitigation, we understand that "traffic volume would increase on existing roadways already identified as substandard facilities. Substandard roadways must be improved to meet County road standards to mitigate impact significance. Further, analysis of trips added by discretionary development to roadways identified as facilities with high collision/incidence rates must be explored at the project-level to ensure safety standards are met. No other feasible mitigation is available to eliminate safety concerns associated with the identified substandard roadways. Therefore, this impact would remain significant and unavoidable."

On page 5-19 of the 2040 General Plan Draft Environmental Impact Report, we acknowledge that "the VMT impact analysis relies on existing and future growth accommodated through the 2040 General Plan and accounts for the projected growth of the incorporated cities and surrounding counties. Therefore, the transportation and traffic impacts identified in Section 4.16, are inherently cumulative. The VMT and County road standards and safety impacts would remain significant and unavoidable even with mitigation measures due to the increased development, new roadways, and increased numbers of users on the county's transportation system that would result from implementation of the 2040 General Plan. Therefore, the potential for cumulative impacts related to transportation and traffic would be cumulatively significant, and the project would have a considerable contribution." In the end, we recommend the County to work with Caltrans closely for each specific large project in the future to identify safety improvements on the State facilities and also in achieving to reduce VMT with land use balance principle.

Ms. Susan Curtis
February 27, 2020
Page 5

If you have any questions, please feel free to contact Alan Lin the project coordinator at (213) 897-8391 and refer to GTS # 07-VEN-2017-00388AL-DEIR.

Sincerely,



MIYA EDMONSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 2:51 PM
To: Simmons, Carrie
Subject: FW: Comments on General Plan/EIR
Attachments: page4image1774048.jpeg; page1image1665632.png; page3image3766736.png; page3image3766944.png; page3image3743440.png; page2image1668752.png; page3image3744272.png

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Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Michael/Maggie McMonigle <mmmcmonigle@gmail.com>
Sent: Thursday, February 27, 2020 2:44 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Don and Bev de Nicola <de.nicola@cox.net>
Subject: Comments on General Plan/EIR

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time,

” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts

and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

February 19, 2020



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Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and

9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...**Therefore, the potential for conflicts would be minimal. This impact would be less than significant**" (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural



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93003 / 805-633-2260 / info@colabvc.org

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim

urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

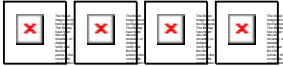
The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources
The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that "...a reduction in available water resources for irrigation" is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion.
But the County fails to analyze or propose mitigation measures to address this significant impact.



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Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

- 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
- 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
- 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director



In support of this letter-

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 2:51 PM
To: Simmons, Carrie
Subject: FW: General Plan / EIR Comments

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Michael/Maggie McMonigle <mmmcmonigle@gmail.com>
Sent: Thursday, February 27, 2020 2:46 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Don and Bev de Nicola <de.nicola@cox.net>
Subject: General Plan / EIR Comments

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

Margaret Chambers McMonigle

FEB 27 12:20 PM 2020

Marianne McGrath
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely,



Marianne McGrath

What about public safety

Attention: Health & Safety

Date: 02/27/2020

02/27/20 09:25:11

What about public safety?

When I built my house at 209 Heavenly Valley Rd, Newbury Park in 1994, it was considered a single-family dwelling. Now 32% of the people on Heavenly Valley Rd rent out their rooms.

If they are a couple they have at least two cars. The houses in our neighborhood range from three to six bedrooms, and when they convert the garage into another unit, they really have a problem with the parking.

My neighbor has a six bedroom house with a bonus room of about 800 square feet. He currently rents out rooms inside his home. He is in the process of converting his garage into a 1200 square foot, three bedroom apartment and an office. He has enough parking for five cars in the driveway. This will require additional parking, but where will this parking be? I don't know, and I don't know that the county knows. It seems the permit was handed out without anyone doing due diligence to find out this answer.

If you do the math, and they have six bedrooms, and a bonus room, add the three bedroom apartment, and the office, how much parking is needed? Everyone in California has a car, and all these cars will be on the street.

Four times in the last 2 1/2 years an ambulance and a firetruck have been stuck to where either they had to wheel the patient down the street or go around the block because the street was blocked off by the parked cars. Again, the streets in this area are only 20 feet wide, and it forces people to park their cars on the street because of over occupancy.

There is also another problem. The street is a gateway to the Santa Monica Mountains which in the past has always been a huge fire concern. Please look on the map and you'll see the gateway I am speaking about. Who says that emergency personnel will be able to get up the street or down the street once these changes are implemented?

Has anyone asked the county/city fire department if they have had issues getting up this street? I hope so, and that should go on record what they had to say. I don't know whether to say no parking on the street or provide more parking but something needs to happen. These homes were meant to be only single-family dwellings and you've converted them into an apartment with absolutely no parking and when I talk to the building department they come up with some nonsense that there's a bus stop within half a mile, which it is slightly over that and we don't need parking, really.

The occupancy has changed but the code has done nothing for the safety or for the provisions of the people living here. It is my understanding that fire sprinklers are not mandatory, and why aren't they?

I hope you think of the public safety before you consider anymore garages changed into units, the Community demands more integrity than you're giving us.

Phillip Fuess (805 630 6212)
209 Heavenly Valley Rd
Newbury Park CA 91320

Phillipfuess@Hotmail.com

000272040 000

bev

From: Marshall C. Milligan <mcmilligan@gmail.com>
Sent: Tuesday, February 25, 2020 3:32 PM
To: susan.curtis@ventura.org; generalplanupdate@ventura.org
Subject: 2040 General Plan Draft EIR Comment

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

My family has owned for generations and continues to own agricultural properties in Ventura County, including mineral rights under a number of currently and previously owned parcels. I'm writing to you as an owner of mineral rights in Ventura County.

The 2040 General Plan Draft EIR fails to give proper analysis to mineral resources and must be corrected to more adequately and fairly assess the impact of the proposed general plan on owners of mineral rights.

Neither the EIR nor the Background Report provide a complete and thorough description of the existing regulations affecting the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

The EIR fails to analyze the direct and indirect impacts to mineral resource development as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses over known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding the anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity.

As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to develop and manage mineral resources in the County.

Gaps in the 2040 General Plan Draft EIR must be corrected, and the Draft EIR recirculated, to fairly present the foreseeable impacts on owners of mineral rights in the County.

Sincerely,

Marshall C. Milligan

805-570-0332

FEB 27 2020 AM 9:01

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

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The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

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Sincerely,

Gregory H. Smith

P.O. Box 25010
Ventura, CA 93002

1516 0001 2003

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

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Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

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Sincerely,



2960 Solimar Beach Drive
Ventura, CA 93001

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

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Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

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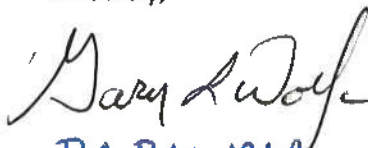
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P.O. Box 1268
Ventura, CA 93002

FEB 27 10 AM 9:09

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

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800 Victoria Avenue L#1740
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Sincerely,

Katherine R. Ewyler

4465 West 4th Street
Los Angeles, CA 90020

0000 0000 0000 0000

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

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Attn: RMA Planning Division
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800 Victoria Avenue L#1740
Ventura, California 93009-1740

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Sincerely,



915 Las Palmas Drive
Santa Barbara, CA 93110

FEB 27 12:04 PM '20

c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

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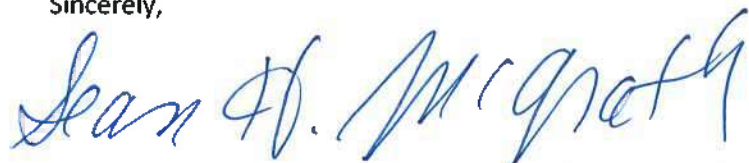
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Sean H. McGrath

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 3:12 PM
To: Simmons, Carrie
Subject: FW: Ventura County Board of Supervisors , Petition to VC Supervisors and Planners about VC2040 Draft General Plan and EIR
Attachments: petition-to-vc-supervisors-and-planners-about-vc2040-draft-general-plan-and-eir_signatures_202002271107.pdf

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Christopher Tull via ActionNetwork.org <info@sg.actionnetwork.org>
Sent: Thursday, February 27, 2020 3:08 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County Board of Supervisors , Petition to VC Supervisors and Planners about VC2040 Draft General Plan and EIR

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Ventura County Board of Supervisors ,

206 people have signed a petition on Action Network telling you to Petition to VC Supervisors and Planners about VC2040 Draft General Plan and EIR.

Here is the petition they signed:

With worsening climate change impacts, we reiterate and amplify the concerns the people expressed in January of last year about “climate change

and GHGs, and the effects of continued oil and gas extraction including secondary effects related to climate change, air quality, water quality, water supply, traffic, noise, odors, aesthetics, and hazards.”

Our county is warming faster than any other in the nation, our ocean is becoming more hostile to marine life, our last drought was the most intense and lasted longest, and our history of costly floods will be dwarfed when future atmospheric rivers pour over our valleys. Our house is on fire. We need a thorough plan and environmental impacts analysis based on the latest science.

Ventura County’s plan matters. Our larger cities are making climate action plans and look for your example of leadership. The environmental impact from what we do to mitigate climate impacts at the global scale is profoundly influential in trying to stop runaway climate change. This is explained in a new report Insights from the California Energy Policy Simulator about the role of the State of California in the world. Ventura County as a local government hit hardest by climate impacts must step up and meet serious goals. “Insights about California’s climate policies are at the forefront of global efforts to battle climate change. The state’s leadership and success so far have helped maintain momentum despite political headwinds. If California faltered, global efforts to reduce GHG emissions would be dealt a major setback. Meanwhile, the severe risks from runaway global warming are becoming more tangible as the state suffers from wildfires supercharged by climate change.”

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counting is not acceptable. Just worry that you haven't counted every cause of climate impacts that we are morally and legally responsible to mitigate with a comprehensive inventory and a systematic plan.

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4. Policies and programs must meet the goal: It does not take an in-depth analysis to see that this plan will not achieve the 2030 goal of 40% reduction in GHGs below 1990 levels. A new report Insights from the California Energy Policy Simulator shows that the State of California will fall short of that goal by at least 15 and as much as 45 MMT CO₂e. We have and continue to advocate for a goal aligned with Governor Brown's Executive Order to achieve carbon neutrality as soon as possible and no later than 2045.

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Summary is not even half finished. Some of the more serious impacts are missing from the draft analysis. Here are a few of our concerns:

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C. The following policy recommendations for the Draft Plan could help the Plan achieve the GHG reduction goals to mitigate climate change impacts and help the EIR be more relevant to the climate crisis.

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3. Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases

and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

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5. Detect and curb methane emissions from “super-emitter” sites as identified by NASA.

6. Tax oil and gas production, and related uncaptured methane to raise the needed revenues to fund urgent climate programs to replace high-emission vehicles with a priority on trucking and freight companies, fishing businesses, general contractors and K-12 schools.

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10. Accelerate capture of legacy HFCs Enlist the public and private to find and destroy existing stocks of HFC’s (refrigerant gases with extremely high Global Warming Potential).

11. Develop and adopt building codes based on best practices for use of low embodied carbon concrete and set targets for use of low GHG concrete alternatives. Ex: Bay Area Air Quality Management District and King Co, WA.

12. Encourage climate-safe and climate-resilient development through zoning reform and removal of limits on height, density, and minimum parking requirements to enable and promote walkability and a mix of uses for homes and businesses, parks and transit.

13. Create a master local clean energy siting and funding plan for wholesale distributed solar energy plus storage in commercial scale projects producing energy needs by 2030.

14. Provide energy efficiency benchmarking and rebates for low-income housing and renters as well as low-interest loans for small businesses to reduce energy use; assist owners of existing buildings to switch from natural gas to electricity.

15. Prepare sustainable building, siting, landscaping and passive heating and cooling practice guidelines, with a priority on low-income housing, that reduce

consumption of non-renewable resources and that include climate and fire-safety in pre-approved plans.

16. Energy Efficiency to Reduce Electricity Use Use Energy Efficiency to Deliver 15% of Projected Needs for electricity in the county by 2023; and 30% by 2030.

17. Efficiency Building Standards for Retrofits Prioritize energy and water efficiency building standards and work to retrofit existing buildings.

18. Decarbonize County Buildings Develop a county building electrification plan eliminating natural gas use in County-owned facilities.

19. Decarbonize All Building Types Develop an electrification plan with goals for GHG emission reductions through renewable energy that evaluates and prioritizes programs for local solar, energy storage and demand response (DR) that disconnects all buildings from gas service by 2050. Include incentives for deep retrofits of inefficient buildings.

Agriculture:

1. Integrated Pest Management where toxic pesticides are a last resort.

Create a program that promotes the principles (systems approach, building trust, and effective communication) and pursues the recommendations of the Roadmap for Integrated Pest Management from the University of California and CA Department of Pesticide Regulation. Environmental impacts from toxic pesticides are not described in the Background Report. The Roadmap to an Organic California Policy Report by CCOF Foundation offers information for mitigations and climate action. A workshop is needed.

2. Inorganic Nitrogen Based Fertilizers Set benchmarks for reducing use of inorganic N fertilizer and encourage optimized use of organic and inorganic fertilizer for greatest efficiency in closed nutrient cycles, monitor for nutrient runoff from fields and encourage the use of cover crops and green manure crops to reduce or avoid nitrous oxide (N₂O) emissions and nutrient runoff.

3. Diversified Cropping Systems Encourage farmers to include 1 – 5% of beneficial insect attracting plants in a planted crop, and other methods, such as crop rotation, perennial mowed cover crop in orchards, and integrating multiple species or varieties to enhance the biological and economic stability by spreading economic risk and buffering against pest invasions and extreme weather events, and increase carbon sequestration.

4. Reward Regenerative Farmers with Digestate and Compost from Food

Waste Research feasibility of a program for composting food waste for use by farmers and landscapers who use regenerative practices that sequester certified amounts of CO₂.

Water Resources:

1. At least 30,000 acre-feet per year must come from storm water capture by 2035
2. All rainfall must be retained onsite in soil and reservoirs.
3. Slow It. Spread It. Sink It! The County shall enforce Best Management Practices (BMP) and Low Impact Development (LID) for new developments.
4. Recycle all wastewater for beneficial reuse by 2035.
5. Reduce potable water use per capita by 22% by 2025 and 25% by 2035: Offer incentives for water conservation features, including drought tolerant landscaping, permeable materials in standard parkway design guidelines, street trees, infiltration, greywater, and water-saving plumbing.
6. Close oil and gas wells and injection wells near aquifers as a top priority.
7. Create a Master Plan to develop the full potential of integrated water management to infiltrate the ground and recharge aquifers; support reforestation and restoration of watershed ecosystems; conserve and protect groundwater resources, and clean up creeks, streams, and estuaries.
8. Support Santa Clara River Loop Trail and Ventura River Trail Development

Economic Vitality:

1. Agricultural Diversification should include reference to regenerative practices to create biodiversity with opportunities for community members to visit farms.
2. Small Business Promotion. Support approval of caretaker residential space on business property to reduce VMT and more financial strength for small businesses.
3. Green Economy. Prioritize youth and immigrants for workforce development in industries that promote and enhance environmental sustainability, including GHG reductions, climate adaptation, resiliency and local renewable energy generation, storage and distribution, including solar power, wind power, wave energy, regenerative organic farming and value-added agriculture-related activities, and other appropriate renewable sources.
4. Maritime Economy. Facilitate a sustainable maritime economy using

restorative aquaculture techniques that restore ocean health and biodiversity while reviving pre-human fisheries abundance. For example, restore sand-bottom kelp forests and increase kelp forests with flexible floating fishing reefs where the seafloor is otherwise too deep for kelp.

5. Promote Fire-Resistant Infill and Revitalization. Encourage infill development that serves as firebreak rather than as additional fuel for wildfires.

6. Create a Collaborative Structure for Innovation for a Resilient Future. The structure should be able to make decisions and create a way forward for zoning, building and materials and environmental health to allow options for a resilient future, include government officials, innovators and public as described in submissions from Sustainable Living Research Initiative.

7. Parking Infrastructure. Develop parking policies to reduce single occupancy trips associated with employees and business activity to reduce Vehicle Miles Traveled.

8. Master Plan for Distributed Energy Resources and Community Microgrids. Prepare a map of siting options for renewable energy generation and storage facilities and coordinate the identification of financing options for renewable energy resource development, including solar, wind, wave, storage and community microgrids both in front of and behind the meter.

In summary, with the accelerating tipping points, we cannot go half-way in our vision. We need extraordinary courage to set goals we can hang our hopes and efforts on. We want completeness and clarity so we can see how the emissions reduction plan adds up. We want respect for climate science to tell us the truth. We want more ambition. A 2016 decision of the state legislature in SB32 is just not good enough as a goal. We want to see a systematic plan that will assure carbon neutrality no later than 2045.

You can view each petition signer and the comments they left you in the attached PDF.

Thank you,

Christopher Tull



Sent via Action Network, a free online toolset anyone can use to organize. [Click here to sign up](#) and get started building an email list and creating online actions today.

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19. Decarbonize All Building Types Develop an electrification plan with goals for GHG emission reductions through renewable energy that evaluates and prioritizes programs for local solar, energy storage and demand response (DR) that disconnects all buildings from gas service by 2050. Include incentives for deep retrofits of inefficient buildings.

Agriculture:

1. Integrated Pest Management where toxic pesticides are a last resort. Create a program that promotes the principles (systems approach, building trust, and effective communication) and pursues the recommendations of the Roadmap for Integrated Pest Management from the University of California and CA Department of Pesticide Regulation. Environmental impacts from toxic pesticides are not described in the Background Report. The Roadmap to an Organic California Policy Report by CCOF Foundation offers information for mitigations and climate action. A workshop is needed.
2. Inorganic Nitrogen Based Fertilizers Set benchmarks for reducing use of inorganic N fertilizer and encourage optimized use of organic and inorganic fertilizer for greatest efficiency in closed nutrient cycles, monitor for nutrient runoff from fields and encourage the use of cover crops and green manure crops to reduce or avoid nitrous oxide (N₂O) emissions and nutrient runoff.
3. Diversified Cropping Systems Encourage farmers to include 1 – 5% of beneficial insect attracting plants in a planted crop, and other methods, such as crop rotation, perennial mowed cover crop in orchards, and integrating multiple species or varieties to enhance the biological and economic stability by spreading economic risk and buffering against pest invasions and extreme weather events, and increase carbon sequestration.
4. Reward Regenerative Farmers with Digestate and Compost from Food Waste Research feasibility of a program for composting food waste for use by farmers and landscapers who use regenerative practices that sequester certified amounts of CO₂.

Water Resources:

1. At least 30,000 acre-feet per year must come from storm water capture by 2035
2. All rainfall must be retained onsite in soil and reservoirs.
3. Slow It. Spread It. Sink It! The County shall enforce Best Management Practices (BMP) and Low Impact Development (LID) for new developments.
4. Recycle all wastewater for beneficial reuse by 2035.
5. Reduce potable water use per capita by 22% by 2025 and 25% by 2035: Offer incentives for water conservation features, including drought tolerant landscaping, permeable materials in standard parkway design guidelines, street trees, infiltration, greywater, and water-saving plumbing.
6. Close oil and gas wells and injection wells near aquifers as a top priority.
7. Create a Master Plan to develop the full potential of integrated water management to infiltrate the ground and recharge aquifers; support reforestation and restoration of watershed ecosystems; conserve and protect groundwater resources, and clean up creeks, streams, and estuaries.
8. Support Santa Clara River Loop Trail and Ventura River Trail Development

Economic Vitality:

1. Agricultural Diversification should include reference to regenerative practices to create biodiversity with opportunities for community members to visit farms.
2. Small Business Promotion. Support approval of caretaker residential space on business property to reduce VMT and more financial strength for small businesses.
3. Green Economy. Prioritize youth and immigrants for workforce development in industries that promote and enhance environmental sustainability, including GHG reductions, climate adaptation, resiliency and local renewable energy generation, storage and distribution, including solar power, wind power, wave energy, regenerative organic farming and value-added agriculture-related activities, and other appropriate renewable sources.
4. Maritime Economy. Facilitate a sustainable maritime economy using restorative aquaculture techniques that restore ocean health and biodiversity while reviving pre-human fisheries abundance. For example, restore sand-bottom kelp forests and increase kelp forests with flexible floating fishing reefs where the seafloor is otherwise too deep for kelp.
5. Promote Fire-Resistant Infill and Revitalization. Encourage infill development that serves as firebreak rather than as additional fuel for wildfires.
6. Create a Collaborative Structure for Innovation for a Resilient Future. The structure should be able to make decisions and create a way forward for zoning, building and materials and environmental health to allow options for a resilient future, include government officials, innovators and public as described in submissions from Sustainable Living Research Initiative.
7. Parking Infrastructure. Develop parking policies to reduce single occupancy trips associated with employees and business activity to reduce Vehicle Miles Traveled.
8. Master Plan for Distributed Energy Resources and Community Microgrids. Prepare a map of siting options for renewable energy generation and storage facilities and coordinate the identification of financing options for renewable energy resource development, including solar, wind, wave, storage and community microgrids both in front of and behind the meter.

In summary, with the accelerating tipping points, we cannot go half-way in our vision. We need extraordinary courage to set goals we can hang our hopes and efforts on. We want completeness and clarity so we can see how the emissions reduction plan adds up. We want respect for climate science to tell us the truth. We want more ambition. A 2016 decision of the state legislature in SB32 is just not good enough as a goal. We want to see a systematic plan that will assure carbon neutrality no later than 2045.

You can view each petition signer and the comments they left you below.

Thank you,

Christopher Tull

1. Andrew Abate (*ZIP code: 93001*)

2. Adam Kaiserman (*ZIP code: 93001*)

3. Allen Pobirs (*ZIP code: 93004*)

4. Ally Gialketsis (*ZIP code: 93003*)

5. Noah Aist (*ZIP code: 93004*)

6. Alexander Verharen (*ZIP code: 93001*)

7. Allison Maires (*ZIP code: 93003*)

Climate Change needs to be our county's top priority, we are in jeopardy. Please have it figure prominently in the General Plan.

8. Emiliano Amaro (*ZIP code: 93036*)

9. Alli Fish (*ZIP code: 93001*)

10. Andrew Ellison (*ZIP code: 93023*)

11. Angela Romero (*ZIP code: 93003*)

12. Annette Halpern (*ZIP code: 93004*)

13. Arnett Smithson (*ZIP code: 93004*)

14. Ellen Smith (*ZIP code: 93010*)

I support this petition!

15. Rebecka Hutchins (*ZIP code: 92701*)

Dear Ventura County Supervisors,

Global warming is happening right now we would like for you to consider our climate solutions, so we can live and breathe in a healthier and cleaner environment.

Sincerely,

Rebecka

16. Barbara Leighton (*ZIP code: 91320*)

17. Ben Werner (*ZIP code: 93101*)

18. elizabeth shipley (*ZIP code: 93041*)

19. Bryan Farin (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Bryan

20. Luis Campa (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Luis

21. Jeannette Welling (*ZIP code: 91362*)

22. brian rasnow (*ZIP code: 91320*)

We need to follow the science and not discount the future for short term, unsustainable, rewards.

23. Brigid Morales (*ZIP code: 93003*)

24. Cesar Vega (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Global warming is happening right now we would like for you to consider our climate solutions, so we can live and breathe in a healthier and cleaner environment.

Sincerely,

Cesar

25. Candie Lange (*ZIP code: 93022*)

26. Carol Hart (*ZIP code: 93001*)

27. Catherine Forbes (*ZIP code: 92374*)

28. Charles Myers (*ZIP code: 93022*)

29. Anthony Krzywicki (*ZIP code: 93001*)

30. Chelsea Sutula (*ZIP code: 93023*)

we need to do better

31. Christina Pasetta (*ZIP code: 90405*)

-CARBON NEUTRAL 2028

-INDEPENDENT EIR

-ACCEPT AND SUPPORT CFROG AND SURFRIDER POLICY RECOMMENDATIONS

32. Charmaine Feria (*ZIP code: 9303e*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Charmaine

33. Christine Johnston (*ZIP code: 93015*)

34. Claire Williams (*ZIP code: 91301*)

35. Christopher Tull (*ZIP code: 93036*)

36. Denice Avila (*ZIP code: 93012*)

37. Craig Juan (*ZIP code: 92128*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely

38. David Gilbertson (*ZIP code: 93012*)

The VC General Plan must identify specific actions to address the impacts of our Climate Crisis. The current draft General Plan lacks specific measurable actions to reduce GHG emissions.

I support this petition and its recommendations.

39. Dee Reid (*ZIP code: 93023*)

40. Cheryl Dilks (*ZIP code: 93035*)

41. Daniel Jordan, PhD (*ZIP code: 93035*)

42. DANIEL TWEDT (*ZIP code: 91360*)

As a CERT-trained Extra Class Amateur Radio Operator, (KK6VDR) I believe we can recruit Ventura County's Hams into finding various Citizen Science Initiatives to assist with the regenerative steps we need to save our shared biosphere.

43. Douglas Johannes (*ZIP code: 93004*)

44. Dulce Satterfield (*ZIP code: 93041*)

45. Doug DuBois (*ZIP code: 93001*)

46. liz lamar (*ZIP code: 93033*)

47. Elisha Borcena (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on our global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Elisha

48. Elizabeth Rice (*ZIP code: 93010*)

49. Elizabeth Billiot (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Elizabeth

50. Erica Ramirez (*ZIP code: 93003*)

51. Pat Browne (*ZIP code: 93012*)

52. Emma Aist (*ZIP code: 93004*)

53. Amber Bassett (*ZIP code: 93003*)

It is absolutely crucial that all efforts to create carbon neutral communities happens before 2045. Our climate in particular is affected by this.

54. Erlinda Farala (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on our global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Erlinda

55. Erlinda Farala (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about climate change and it's effects on global warming.

Thank you,

Erlinda

56. Faith Grant (*ZIP code: 91361*)

We need to have strong climate policies in Ventura. It's going to take major changes to even slow down climate change. Please listen to the electorate and endorse strong climate policies.

57. Jennifer Farin (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jennifer

58. Fiona Bremner (*ZIP code: 93003*)

59. Judith Wilson (*ZIP code: 93003*)

60. Gabriel Sandosham (ZIP code: 95112)

61. Gael Belden (ZIP code: 93023)

62. Geoffrey Dann (ZIP code: 93003)

The county must plan to mitigate the effects of climate change and help slow or reverse climate change. We should set an example for the rest of the country.

63. Gordon Clint (ZIP code: 91320)

64. gail hubbs (ZIP code: 91320)

65. George Vye (ZIP code: 93004)

66. Ashley Basquez (ZIP code: 93012)

Dear Ventura County Supervisors,

Please take care of our Climate Change Challenges for our future children and their children's children. Our land is so precious. We are the 5th richest county in Southern California and can make a positive impact.

Sincerely,
Ash

67. grant marcus (ZIP code: 93001)

68. Gene Fox (ZIP code: 93004)

69. Gwen Bell (ZIP code: 93023)

70. Helen Dziadulewicz (ZIP code: 93010)

71. Leicy Grace (ZIP code: 93033)

Dear Ventura County Supervisors,

Please care about climate change and it's effects on global warming.

Thank you,

Leicy

72. Michelle Cabrera (ZIP code: 93001)

73. Jack Weber (ZIP code: 93023)

Climate policy must be a priority; cease all fossil fuels and witch to renewables and make biking more safe! Thank you...

74. Jackson Piper (ZIP code: 91320)

This general plan will shape how development occurs in Ventura County in the near future and will affect the lives of County residents beyond the timeframe of the plan. It is essential that the plan acknowledges and does everything possible to prepare Ventura County and its residents for the dangers that we face due to climate change - whether or not some of our fellow residents wish to acknowledge that danger or our agency as a society in working to minimize its impact. Please improve upon the Draft General Plan by incorporating the suggestions of the Climate Hub into the final document, so that Ventura County and its residents can more effectively protect this place that is special to all of us.

75. Judy Duerr (ZIP code: 93004-1228)

76. Jaira Farala (ZIP code: 93030)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jaira

77. James Brehm (ZIP code: 93001)

78. Janet Sager Knott (ZIP code: 93023)

79. Jan Dietrick (ZIP code: 93001)

80. Jeff Otterbein (ZIP code: 93023)

81. Jennaci Feria (ZIP code: 93030)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jennaci

82. Jenny Pandol (ZIP code: 93001)

83. Jamee Faral (ZIP code: 93030)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jamee

84. Jonathan Farin (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jonathan

85. Jeff Farin (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jeff

86. James Merrill (*ZIP code: 93033-7965*)

87. James Whitney (*ZIP code: 93001-1491*)

We need to act now, the climate will not take a time out for us to mull it over.

88. Joyce McIntire (*ZIP code: 91320*)

89. Jimmy Vasquez (*ZIP code: 93003*)

90. Karen Trowbridge (*ZIP code: 93035*)

We need to do everything possible to divert the impact of climate change or rather climate crisis here in Ventura County? We must act now!!!!

91. Joan Nygren (*ZIP code: 93023*)

We all need to take this seriously

92. Joe Connett (*ZIP code: 93001*)

Addressing climate change must be a priority!

93. John Brooks (*ZIP code: 93022*)

The climate action plan must be clear, drastic and enforceable.

94. Jon Wilk (*ZIP code: 93023*)

95. Jennie Altice (*ZIP code: 92128*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Jennie

96. Josie Sabalerio (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Josie

97. Karen Farin (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Karen

98. Karen Farin (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Karen

99. Karen Sher (*ZIP code: 93012*)

100. Karina Kaye (*ZIP code: 93035*)

101. Kate Higgins (*ZIP code: 93004*)

Vote Kim Stephenson for Cty Supervisor, District 3

102. Kathleen Wheeler (*ZIP code: 93003*)

103. Kaysha Farala (ZIP code: 93033)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on our global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Kaysha

104. Keith Nieves (ZIP code: 93001)

105. Kristen Kessler (ZIP code: 93004)

106. Katharine Merrill (ZIP code: 93033-7965)

We need to create a climate plan that is grounded in good science, and that means counting all the green house gas emissions from all sources.

107. Katherine Mack (ZIP code: 03023)

108. Kathleen Nolan (ZIP code: 93023)

109. Layla White (ZIP code: 93030)

Dear Ventura County Supervisors,

Please consider taking care of our climate and reducing the effects of global warming.

Sincerely,

Layla

110. Krystal Anderson (ZIP code: 92071)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Krystal

111. Diana Kubilos (ZIP code: 93004)

112. Kevin Ward (ZIP code: 93036)

The time is now for transitioning to non-fossil fuel products, all of them.

Solar, permaculture and voting for Bernie is a good defense against global warming already evident in fires, floods and, like Coronavirus, microbes. Any delay will make the US complicit with chosen

extinction. Think Green New Deal or nada.

113. Kristofer Young (ZIP code: 93023)

The climate portions of the general plan lacks specific, critical goals and mechanisms to ensure achieving them. We do not have time to waste.

114. Kyle Pobirs (ZIP code: 93004)

115. Lauren Mendez (ZIP code: 93030)

116. Lorren Carter (ZIP code: 92064)

Dear Ventura County Supervisors,

Global warming is happening right now we would like for you to consider our climate solutions, so we can live and breathe in a healthier and cleaner environment.

Sincerely,

Starsha

117. LeeAnne Christensen (ZIP code: 93021)

118. Leopoldo Lopez (ZIP code: 93003)

119. Leslie Purcell (ZIP code: 93001)

120. Yusef Kilea (ZIP code: 93035)

121. Liz Campos (ZIP code: 93002)

122. Sio Arden (ZIP code: 9303p)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Sio

123. Willard Lubka (ZIP code: 91362)

124. Lupe Anguiano (ZIP code: 93033-3449)

I continue expressing strong support for the recommendations made by CFROG and Climate Hub to the Ventura Country's 2040 DraftvGeneral Plan and EIR.

125. Madalitso Kalinde (ZIP code: 2461)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Madalitso

126. Mary Ann Krause (ZIP code: 93060)

127. Mary Nelson (ZIP code: 93036)
It is way past time to take action. Step up!

128. Maria Ornelas (ZIP code: 91320)

129. Marlena Roberts (ZIP code: 93041)

130. Marlene Breitenbach (ZIP code: 93035)

131. Martha Wolter (ZIP code: 93001)

132. Martha Fellows (ZIP code: 93023)

133. Martha Martinez-Bravo (ZIP code: 93012)

134. Meridel Carson (ZIP code: 93041)

135. Merrill Berge (ZIP code: 93010)

Since the General Plan process began we have seen horrific wildfires, sea level rise reports and been designated the warmest county in the lower 48. The next 20 years will only increase the impacts of climate change...Ventura County's General Plan must address this new reality with measurable, actionable policies that reduce our carbon emissions right here and right now.

136. Michele Burns (ZIP code: 93004)

137. Michelle Ellison (ZIP code: 93023)

138. Mina Nichols (ZIP code: 93036)

The good news is: if we admit that humans influence the weather, it's just a matter of time before we control the weather.

139. Mary Stanistreet (ZIP code: 93003)

140. Kari Aist (ZIP code: 93004)

141. Monica Gray (*ZIP code: 93001*)

142. Steven Nash (*ZIP code: 93036*)

Climate change must have primacy above all other significant impacts.

143. Dee Kiana Laborte (*ZIP code: 93010*)

144. Tim Nafziger (*ZIP code: 93022*)

Ventura County needs a robust climate component of our new general plan.

145. Nancy Merrick (*ZIP code: 93003-242-*)

146. norma gochin (*ZIP code: 91362*)

We need to address climate change, and we need to address it now. Our planet will not survive if we don't make plans immediately.

147. Nicolette Walker-Itza (*ZIP code: 93023-2230*)

148. Jaclyn Fillingame (*ZIP code: 93060*)

149. Nancy Tamarin (*ZIP code: 91362-3212*)

150. Denise Coin (*ZIP code: 93001*)

151. Karissa Sandoval (*ZIP code: 93010*)

152. Vickie Peters (*ZIP code: 93023*)

153. Olivia Lopez (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Olivia

154. Celia Ortenberg (*ZIP code: 93030*)

155. Pamela Lopez (*ZIP code: 91362*)

156. Pam Shellenbarger (*ZIP code: 93001*)

157. Paul Aist (*ZIP code: 93004*)

158. Margaret (Peg) Strobel (ZIP code: 93003)

The General Plan must take into account rapid, serious changes--drought and wildfires being the most obvious--from climate change. Since agriculture is a critical part of our economy, attention must be paid to that industry. Also important will be funding a way to seriously reduce oil and gas production, since it contributes to climate change. Plans to train workers to transition to new economic opportunities from climate-friendly industries must be planned. New and existing housing needs to be considered (weatherization to reduce electrical use from air conditioning). Climate change will impact everything that county government does.

159. Phil McGrath (ZIP code: 93010)

160. Rachelle Feria (ZIP code: 93030)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Rachelle

161. Randall Edwards (ZIP code: 91362)

162. Ray Powers (ZIP code: 93023)

A thorough analysis and comprehensive climate action needs to be part of the general plan update. What's is currently being proposed is not sufficient.

163. Ricardo Lopez (ZIP code: 93030)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Ricardo

164. Robert Dodge (ZIP code: 93023)

Climate change and its effects are one of our greatest existential threats and we must move away from a carbon based extractive economy as soon as possible. We urge you on behalf of the health and wellbeing of Ventura County and all of our citizens to adopt the strongest possible environmental protection in the Draft General Plan.

165. Ron Whitehurst (ZIP code: 93001)

We need to move to regenerative organic farming and landscaping to re-establish the small water cycles.

166. Ron Merkord (ZIP code: 93015)

Rising CO2 levels will soon have consequences for everyone, and Ventura County will see the first of

some of these effects, like increased wildfires and rising sea levels. We need to quit waiting for someone else to do something about it. Our own General Plan update is a great place to start.

167. Rominck Callo (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please consider taking care of our climate and reducing the effects of global warming.

Sincerely,

Romnick

168. rosemary fields (*ZIP code: 93004*)

Climate change affects the entire world all animals and humans.

169. Siomara Ardon (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Siomara

170. Scott eckersley (*ZIP code: 93023*)

171. Karen Karayan (*ZIP code: 93060*)

This is one of my top concerns! I worry about our children and their children's world if we don't do as much as we can to protect and heal our world! Ventura County can be one of the leaders in this effort!

172. Sarah Fleury (*ZIP code: 93060*)

173. Sasha Phan (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please consider taking care of our climate and reducing the effects of global warming.

Sincerely,

Sasha

174. Sonia Kroth (*ZIP code: 93001*)

175. Sharon Ray (*ZIP code: 93105*)

176. Starsha Farala (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change as it is currently happening. Please strongly do something about the impact towards global warming in our environment.

Sincerely,

Starsha Farala

177. steve nipper (*ZIP code: 93023*)

Because it's the right thing to do!

178. Steve Pinsky (*ZIP code: 93001*)

179. Kristin Storey (*ZIP code: 93023*)

180. Susan Williamson (*ZIP code: 93023*)

Get with you guys! Ventura is a coastal city! Duhhh. You need to host a climate convention to get input on what needs to be done in VC!

181. Susan Curtis (*ZIP code: 91361*)

182. Francesa Gonzales (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on our global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Francesa

183. Arthur Snyder (*ZIP code: 93036*)

Global warming is an existential threat.

184. Paul Burke (*ZIP code: 93012*)

185. Tessa Salzman (*ZIP code: 93001*)

186. Tina Frugoli (*ZIP code: 91362*)

187. Catherine Myers (*ZIP code: 93004*)

188. theresa hartigan (*ZIP code: ?93022*)

189. thomas miller (*ZIP code: 93004*)

190. Thomas Seigner (ZIP code: 91361)

Each new climate study outlines a more dire situation than the previous study. Even if we went carbon neutral today, future generations will still experience hardships we have not. NO MORE NEW FOSSIL FUEL PRODUCTION IN VENTURA COUNTY.

191. Tamara Hoyt (ZIP code: 93001)

Please address the climate crisis now

192. Todd Shuman (ZIP code: 93010)

I endorse this petition! It is time that Ventura County increase its commitment to reduce GHG emissions ...

193. Christine Samusick (ZIP code: 93001)

We need a desalination plant. Yesterday.

Water recycling must be encouraged and accommodated.

All styrofoam must be banned.

This is a partial list of actions that will help Ventura through this continual drought and help ease the burden on our landfill.

194. Vicki DeBear (ZIP code: 91311)

195. Vilma Pineda (ZIP code: 93033)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Vilma

196. Lori Bates (ZIP code: 93035)

197. Margot Davis (ZIP code: 93001)

The planning commission, or whoever it was that drafted the DEIR , I don't understand how they could have so missed the boat? I hope the board of supervisors will not miss the boat entirely and OK this general plan update the way it stands

198. Wilson Altice (ZIP code: 92128)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Wilson

600 27 20 AM 9:00

Carolyn Diacos
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

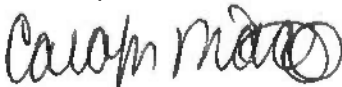
After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely,



Carolyn Diacos

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 3:12 PM
To: Simmons, Carrie
Subject: FW: Ventura County Board of Supervisors , Petition to VC Supervisors and Planners about VC2040 Draft General Plan and EIR
Attachments: petition-to-vc-supervisors-and-planners-about-vc2040-draft-general-plan-and-eir_signatures_202002271109.pdf

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Christopher Tull via ActionNetwork.org <info@sg.actionnetwork.org>
Sent: Thursday, February 27, 2020 3:09 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County Board of Supervisors , Petition to VC Supervisors and Planners about VC2040 Draft General Plan and EIR

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

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Circulation, Transportation, and Mobility:

1. No overriding considerations should allow a project to NOT reduce VMT unless all of the vehicles have zero emissions that will use the proposed project.
2. CTM 3-9 to widen SR 118 has a significant environmental impact.
3. Benchmarks to reduce VMT need to be more clear and the plan needs a review with public input every two years until 2028 and then no longer than every five years.
4. Parking programs should be included in ways that reduce single-occupancy car trips.

Public Facilities, Services, and Infrastructure:

1. Enroll residents in a program to reduce CO2 emissions in their neighborhoods. Ex: Cool Block or Transition Streets.
2. PFS 2.1 must be revised to say include rather than encourage 'Sustainable Plans and Operations' in order to be considered a mitigation of climate change impacts from greenhouse gas emissions.
3. Policy PFS 7.1 should be revised to delete the need for access to gas. The environmental impact from use of natural gas requires carbonizing buildings beginning with no gas connections to new residences . It is therefore contradictory to ensure access to gas.
4. Local renewable energy generation must be part of the mitigation plan for reducing transmission facility fire hazard risk. This is not the same as "Smart Grid Technology". You need experts who know the cutting edge of this field to help write coherent policy on this topic.
5. Zero Waste The County shall achieve zero waste (via a suite of policies to reduce, reuse, and recycle) with no organic waste going to landfills by 2023
6. Zero Waste Policy for Meetings and Events Design and implement a zero waste policy for meetings and events sponsored or permitted by the County to minimize waste and rescue surplus edible food
7. Compostable Take-Out Foodware Require that take-out foodware be made with material compostable in solid waste processing facilities within 60 days
8. Reduce Solid Waste by Phasing Out Single-Use Plastic Evaluate how to best reduce solid waste generation per capita by at least 15% by 2030 including phasing out single-use plastics including but not limited to plastic straws, plastic utensils, plastic take-out containers, and expanded polystyrene
9. Ban Expanded Polystyrene

Conservation and Open Space:

1. Reduce oil and gas production by 40% by 2025 via higher monitoring standards and 2500 ft buffer zones near sensitive sites; reduce production to zero by no later than 2040.
2. Phase-Out of Oil and Gas Production The County shall prohibit new drilling and shall regulate existing wells to assure steady closing of wells beginning near residential and commercial areas.
3. Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases

and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

4. Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.

5. Detect and curb methane emissions from “super-emitter” sites as identified by NASA.

6. Tax oil and gas production, and related uncaptured methane to raise the needed revenues to fund urgent climate programs to replace high-emission vehicles with a priority on trucking and freight companies, fishing businesses, general contractors and K-12 schools.

7. Require a fully accountable performance bond for all new wells to cover cost of closure Cite LAT article (maybe put on website and link to it).

8. Establish an insurance fund that oil and gas producers contribute to that will cover accidents and closing wells if the producer goes bankrupt.

9. Ban gas-fueled lawn and garden equipment. (Ex: City of Ojai)

10. Accelerate capture of legacy HFCs Enlist the public and private to find and destroy existing stocks of HFC's (refrigerant gases with extremely high Global Warming Potential).

11. Develop and adopt building codes based on best practices for use of low embodied carbon concrete and set targets for use of low GHG concrete alternatives. Ex: Bay Area Air Quality Management District and King Co, WA.

12. Encourage climate-safe and climate-resilient development through zoning reform and removal of limits on height, density, and minimum parking requirements to enable and promote walkability and a mix of uses for homes and businesses, parks and transit.

13. Create a master local clean energy siting and funding plan for wholesale distributed solar energy plus storage in commercial scale projects producing energy needs by 2030.

14. Provide energy efficiency benchmarking and rebates for low-income housing and renters as well as low-interest loans for small businesses to reduce energy use; assist owners of existing buildings to switch from natural gas to electricity.

15. Prepare sustainable building, siting, landscaping and passive heating and cooling practice guidelines, with a priority on low-income housing, that reduce

consumption of non-renewable resources and that include climate and fire-safety in pre-approved plans.

16. Energy Efficiency to Reduce Electricity Use Use Energy Efficiency to Deliver 15% of Projected Needs for electricity in the county by 2023; and 30% by 2030.

17. Efficiency Building Standards for Retrofits Prioritize energy and water efficiency building standards and work to retrofit existing buildings.

18. Decarbonize County Buildings Develop a county building electrification plan eliminating natural gas use in County-owned facilities.

19. Decarbonize All Building Types Develop an electrification plan with goals for GHG emission reductions through renewable energy that evaluates and prioritizes programs for local solar, energy storage and demand response (DR) that disconnects all buildings from gas service by 2050. Include incentives for deep retrofits of inefficient buildings.

Agriculture:

1. Integrated Pest Management where toxic pesticides are a last resort.

Create a program that promotes the principles (systems approach, building trust, and effective communication) and pursues the recommendations of the Roadmap for Integrated Pest Management from the University of California and CA Department of Pesticide Regulation. Environmental impacts from toxic pesticides are not described in the Background Report. The Roadmap to an Organic California Policy Report by CCOF Foundation offers information for mitigations and climate action. A workshop is needed.

2. Inorganic Nitrogen Based Fertilizers Set benchmarks for reducing use of inorganic N fertilizer and encourage optimized use of organic and inorganic fertilizer for greatest efficiency in closed nutrient cycles, monitor for nutrient runoff from fields and encourage the use of cover crops and green manure crops to reduce or avoid nitrous oxide (N₂O) emissions and nutrient runoff.

3. Diversified Cropping Systems Encourage farmers to include 1 – 5% of beneficial insect attracting plants in a planted crop, and other methods, such as crop rotation, perennial mowed cover crop in orchards, and integrating multiple species or varieties to enhance the biological and economic stability by spreading economic risk and buffering against pest invasions and extreme weather events, and increase carbon sequestration.

4. Reward Regenerative Farmers with Digestate and Compost from Food

Waste Research feasibility of a program for composting food waste for use by farmers and landscapers who use regenerative practices that sequester certified amounts of CO₂.

Water Resources:

1. At least 30,000 acre-feet per year must come from storm water capture by 2035
2. All rainfall must be retained onsite in soil and reservoirs.
3. Slow It. Spread It. Sink It! The County shall enforce Best Management Practices (BMP) and Low Impact Development (LID) for new developments.
4. Recycle all wastewater for beneficial reuse by 2035.
5. Reduce potable water use per capita by 22% by 2025 and 25% by 2035: Offer incentives for water conservation features, including drought tolerant landscaping, permeable materials in standard parkway design guidelines, street trees, infiltration, greywater, and water-saving plumbing.
6. Close oil and gas wells and injection wells near aquifers as a top priority.
7. Create a Master Plan to develop the full potential of integrated water management to infiltrate the ground and recharge aquifers; support reforestation and restoration of watershed ecosystems; conserve and protect groundwater resources, and clean up creeks, streams, and estuaries.
8. Support Santa Clara River Loop Trail and Ventura River Trail Development

Economic Vitality:

1. Agricultural Diversification should include reference to regenerative practices to create biodiversity with opportunities for community members to visit farms.
2. Small Business Promotion. Support approval of caretaker residential space on business property to reduce VMT and more financial strength for small businesses.
3. Green Economy. Prioritize youth and immigrants for workforce development in industries that promote and enhance environmental sustainability, including GHG reductions, climate adaptation, resiliency and local renewable energy generation, storage and distribution, including solar power, wind power, wave energy, regenerative organic farming and value-added agriculture-related activities, and other appropriate renewable sources.
4. Maritime Economy. Facilitate a sustainable maritime economy using

restorative aquaculture techniques that restore ocean health and biodiversity while reviving pre-human fisheries abundance. For example, restore sand-bottom kelp forests and increase kelp forests with flexible floating fishing reefs where the seafloor is otherwise too deep for kelp.

5. Promote Fire-Resistant Infill and Revitalization. Encourage infill development that serves as firebreak rather than as additional fuel for wildfires.

6. Create a Collaborative Structure for Innovation for a Resilient Future. The structure should be able to make decisions and create a way forward for zoning, building and materials and environmental health to allow options for a resilient future, include government officials, innovators and public as described in submissions from Sustainable Living Research Initiative.

7. Parking Infrastructure. Develop parking policies to reduce single occupancy trips associated with employees and business activity to reduce Vehicle Miles Traveled.

8. Master Plan for Distributed Energy Resources and Community Microgrids. Prepare a map of siting options for renewable energy generation and storage facilities and coordinate the identification of financing options for renewable energy resource development, including solar, wind, wave, storage and community microgrids both in front of and behind the meter.

In summary, with the accelerating tipping points, we cannot go half-way in our vision. We need extraordinary courage to set goals we can hang our hopes and efforts on. We want completeness and clarity so we can see how the emissions reduction plan adds up. We want respect for climate science to tell us the truth. We want more ambition. A 2016 decision of the state legislature in SB32 is just not good enough as a goal. We want to see a systematic plan that will assure carbon neutrality no later than 2045.

You can view each petition signer and the comments they left you in the attached PDF.

Thank you,

Christopher Tull



Sent via Action Network, a free online toolset anyone can use to organize. [Click here to sign up](#) and get started building an email list and creating online actions today.

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1. No overriding considerations should allow a project to NOT reduce VMT unless all of the vehicles have zero emissions that will use the proposed project.
2. CTM 3-9 to widen SR 118 has a significant environmental impact.
3. Benchmarks to reduce VMT need to be more clear and the plan needs a review with public input every two years until 2028 and then no longer than every five years.
4. Parking programs should be included in ways that reduce single-occupancy car trips.

Public Facilities, Services, and Infrastructure:

1. Enroll residents in a program to reduce CO2 emissions in their neighborhoods. Ex: Cool Block or Transition Streets.
2. PFS 2.1 must be revised to say include rather than encourage 'Sustainable Plans and Operations' in order to be considered a mitigation of climate change impacts from greenhouse gas emissions.
3. Policy PFS 7.1 should be revised to delete the need for access to gas. The environmental impact from use of natural gas requires carbonizing buildings beginning with no gas connections to new residences . It is therefore contradictory to ensure access to gas.
4. Local renewable energy generation must be part of the mitigation plan for reducing transmission facility fire hazard risk. This is not the same as "Smart Grid Technology". You need experts who know the cutting edge of this field to help write coherent policy on this topic.
5. Zero Waste The County shall achieve zero waste (via a suite of policies to reduce, reuse, and recycle) with no organic waste going to landfills by 2023
6. Zero Waste Policy for Meetings and Events Design and implement a zero waste policy for meetings and events sponsored or permitted by the County to minimize waste and rescue surplus edible food
7. Compostable Take-Out Foodware Require that take-out foodware be made with material compostable in solid waste processing facilities within 60 days
8. Reduce Solid Waste by Phasing Out Single-Use Plastic Evaluate how to best reduce solid waste generation per capita by at least 15% by 2030 including phasing out single-use plastics including but not limited to plastic straws, plastic utensils, plastic take-out containers, and expanded polystyrene
9. Ban Expanded Polystyrene

Conservation and Open Space:

1. Reduce oil and gas production by 40% by 2025 via higher monitoring standards and 2500 ft buffer zones near sensitive sites; reduce production to zero by no later than 2040.
2. Phase-Out of Oil and Gas Production The County shall prohibit new drilling and shall regulate existing wells to assure steady closing of wells beginning near residential and commercial areas.
3. Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.
4. Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.
5. Detect and curb methane emissions from "super-emitter" sites as identified by NASA.
6. Tax oil and gas production, and related uncaptured methane to raise the needed revenues to fund urgent climate programs to replace high-emission vehicles with a priority on trucking and freight companies, fishing businesses, general contractors and K-12 schools.
7. Require a fully accountable performance bond for all new wells to cover cost of closure Cite

LAT article (maybe put on website and link to it).

8. Establish an insurance fund that oil and gas producers contribute to that will cover accidents and closing wells if the producer goes bankrupt.
9. Ban gas-fueled lawn and garden equipment. (Ex: City of Ojai)
10. Accelerate capture of legacy HFCs Enlist the public and private to find and destroy existing stocks of HFC's (refrigerant gases with extremely high Global Warming Potential).
11. Develop and adopt building codes based on best practices for use of low embodied carbon concrete and set targets for use of low GHG concrete alternatives. Ex: Bay Area Air Quality Management District and King Co, WA.
12. Encourage climate-safe and climate-resilient development through zoning reform and removal of limits on height, density, and minimum parking requirements to enable and promote walkability and a mix of uses for homes and businesses, parks and transit.
13. Create a master local clean energy siting and funding plan for wholesale distributed solar energy plus storage in commercial scale projects producing energy needs by 2030.
14. Provide energy efficiency benchmarking and rebates for low-income housing and renters as well as low-interest loans for small businesses to reduce energy use; assist owners of existing buildings to switch from natural gas to electricity.
15. Prepare sustainable building, siting, landscaping and passive heating and cooling practice guidelines, with a priority on low-income housing, that reduce consumption of non-renewable resources and that include climate and fire-safety in pre-approved plans.
16. Energy Efficiency to Reduce Electricity Use Use Energy Efficiency to Deliver 15% of Projected Needs for electricity in the county by 2023; and 30% by 2030.
17. Efficiency Building Standards for Retrofits Prioritize energy and water efficiency building standards and work to retrofit existing buildings.
18. Decarbonize County Buildings Develop a county building electrification plan eliminating natural gas use in County-owned facilities.
19. Decarbonize All Building Types Develop an electrification plan with goals for GHG emission reductions through renewable energy that evaluates and prioritizes programs for local solar, energy storage and demand response (DR) that disconnects all buildings from gas service by 2050. Include incentives for deep retrofits of inefficient buildings.

Agriculture:

1. Integrated Pest Management where toxic pesticides are a last resort. Create a program that promotes the principles (systems approach, building trust, and effective communication) and pursues the recommendations of the Roadmap for Integrated Pest Management from the University of California and CA Department of Pesticide Regulation. Environmental impacts from toxic pesticides are not described in the Background Report. The Roadmap to an Organic California Policy Report by CCOF Foundation offers information for mitigations and climate action. A workshop is needed.
2. Inorganic Nitrogen Based Fertilizers Set benchmarks for reducing use of inorganic N fertilizer and encourage optimized use of organic and inorganic fertilizer for greatest efficiency in closed nutrient cycles, monitor for nutrient runoff from fields and encourage the use of cover crops and green manure crops to reduce or avoid nitrous oxide (N₂O) emissions and nutrient runoff.
3. Diversified Cropping Systems Encourage farmers to include 1 – 5% of beneficial insect attracting plants in a planted crop, and other methods, such as crop rotation, perennial mowed cover crop in orchards, and integrating multiple species or varieties to enhance the biological and economic stability by spreading economic risk and buffering against pest invasions and extreme weather events, and increase carbon sequestration.
4. Reward Regenerative Farmers with Digestate and Compost from Food Waste Research feasibility of a program for composting food waste for use by farmers and landscapers who use regenerative practices that sequester certified amounts of CO₂.

Water Resources:

1. At least 30,000 acre-feet per year must come from storm water capture by 2035
2. All rainfall must be retained onsite in soil and reservoirs.
3. Slow It. Spread It. Sink It! The County shall enforce Best Management Practices (BMP) and Low Impact Development (LID) for new developments.
4. Recycle all wastewater for beneficial reuse by 2035.
5. Reduce potable water use per capita by 22% by 2025 and 25% by 2035: Offer incentives for water conservation features, including drought tolerant landscaping, permeable materials in standard parkway design guidelines, street trees, infiltration, greywater, and water-saving plumbing.
6. Close oil and gas wells and injection wells near aquifers as a top priority.
7. Create a Master Plan to develop the full potential of integrated water management to infiltrate the ground and recharge aquifers; support reforestation and restoration of watershed ecosystems; conserve and protect groundwater resources, and clean up creeks, streams, and estuaries.
8. Support Santa Clara River Loop Trail and Ventura River Trail Development

Economic Vitality:

1. Agricultural Diversification should include reference to regenerative practices to create biodiversity with opportunities for community members to visit farms.
2. Small Business Promotion. Support approval of caretaker residential space on business property to reduce VMT and more financial strength for small businesses.
3. Green Economy. Prioritize youth and immigrants for workforce development in industries that promote and enhance environmental sustainability, including GHG reductions, climate adaptation, resiliency and local renewable energy generation, storage and distribution, including solar power, wind power, wave energy, regenerative organic farming and value-added agriculture-related activities, and other appropriate renewable sources.
4. Maritime Economy. Facilitate a sustainable maritime economy using restorative aquaculture techniques that restore ocean health and biodiversity while reviving pre-human fisheries abundance. For example, restore sand-bottom kelp forests and increase kelp forests with flexible floating fishing reefs where the seafloor is otherwise too deep for kelp.
5. Promote Fire-Resistant Infill and Revitalization. Encourage infill development that serves as firebreak rather than as additional fuel for wildfires.
6. Create a Collaborative Structure for Innovation for a Resilient Future. The structure should be able to make decisions and create a way forward for zoning, building and materials and environmental health to allow options for a resilient future, include government officials, innovators and public as described in submissions from Sustainable Living Research Initiative.
7. Parking Infrastructure. Develop parking policies to reduce single occupancy trips associated with employees and business activity to reduce Vehicle Miles Traveled.
8. Master Plan for Distributed Energy Resources and Community Microgrids. Prepare a map of siting options for renewable energy generation and storage facilities and coordinate the identification of financing options for renewable energy resource development, including solar, wind, wave, storage and community microgrids both in front of and behind the meter.

In summary, with the accelerating tipping points, we cannot go half-way in our vision. We need extraordinary courage to set goals we can hang our hopes and efforts on. We want completeness and clarity so we can see how the emissions reduction plan adds up. We want respect for climate science to tell us the truth. We want more ambition. A 2016 decision of the state legislature in SB32 is just not good enough as a goal. We want to see a systematic plan that will assure carbon neutrality no later than 2045.

You can view each petition signer and the comments they left you below.

Thank you,

Christopher Tull

1. Andrew Abate (ZIP code: 93001)

2. Adam Kaiserman (ZIP code: 93001)

3. Allen Pobirs (ZIP code: 93004)

4. Ally Gialketsis (ZIP code: 93003)

5. Noah Aist (ZIP code: 93004)

6. Alexander Verharen (ZIP code: 93001)

7. Allison Maires (ZIP code: 93003)

Climate Change needs to be our county's top priority, we are in jeopardy. Please have it figure prominently in the General Plan.

8. Emiliano Amaro (ZIP code: 93036)

9. Alli Fish (ZIP code: 93001)

10. Andrew Ellison (ZIP code: 93023)

11. Angela Romero (ZIP code: 93003)

12. Annette Halpern (ZIP code: 93004)

13. Arnett Smithson (ZIP code: 93004)

14. Ellen Smith (ZIP code: 93010)

I support this petition!

15. Rebecka Hutchins (ZIP code: 92701)

Dear Ventura County Supervisors,

Global warming is happening right now we would like for you to consider our climate solutions, so we can live and breathe in a healthier and cleaner environment.

Sincerely,

Rebecka

16. Barbara Leighton (*ZIP code: 91320*)

17. Ben Werner (*ZIP code: 93101*)

18. elizabeth shipley (*ZIP code: 93041*)

19. Bryan Farin (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Bryan

20. Luis Campa (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Luis

21. Jeannette Welling (*ZIP code: 91362*)

22. brian rasnow (*ZIP code: 91320*)

We need to follow the science and not discount the future for short term, unsustainable, rewards.

23. Brigid Morales (*ZIP code: 93003*)

24. Cesar Vega (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Global warming is happening right now we would like for you to consider our climate solutions, so we can live and breathe in a healthier and cleaner environment.

Sincerely,

Cesar

25. Candie Lange (*ZIP code: 93022*)

26. Carol Hart (*ZIP code: 93001*)

27. Catherine Forbes (*ZIP code: 92374*)

28. Charles Myers (*ZIP code: 93022*)

29. Anthony Krzywicki (*ZIP code: 93001*)

30. Chelsea Sutula (*ZIP code: 93023*)

we need to do better

31. Christina Pasetta (*ZIP code: 90405*)

-CARBON NEUTRAL 2028

-INDEPENDENT EIR

-ACCEPT AND SUPPORT CFROG AND SURFRIDER POLICY RECOMMENDATIONS

32. Charmaine Feria (*ZIP code: 9303e*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Charmaine

33. Christine Johnston (*ZIP code: 93015*)

34. Claire Williams (*ZIP code: 91301*)

35. Christopher Tull (*ZIP code: 93036*)

36. Denice Avila (*ZIP code: 93012*)

37. Craig Juan (*ZIP code: 92128*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely

38. David Gilbertson (*ZIP code: 93012*)

The VC General Plan must identify specific actions to address the impacts of our Climate Crisis. The current draft General Plan lacks specific measurable actions to reduce GHG emissions.

I support this petition and its recommendations.

39. Dee Reid (*ZIP code: 93023*)

40. Cheryl Dilks (*ZIP code: 93035*)

41. Daniel Jordan, PhD (*ZIP code: 93035*)

42. DANIEL TWEDT (*ZIP code: 91360*)

As a CERT-trained Extra Class Amateur Radio Operator, (KK6VDR) I believe we can recruit Ventura County's Hams into finding various Citizen Science Initiatives to assist with the regenerative steps we need to save our shared biosphere.

43. Douglas Johannes (*ZIP code: 93004*)

44. Dulce Satterfield (*ZIP code: 93041*)

45. Doug DuBois (*ZIP code: 93001*)

46. liz lamar (*ZIP code: 93033*)

47. Elisha Borcena (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on our global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Elisha

48. Elizabeth Rice (*ZIP code: 93010*)

49. Elizabeth Billiot (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Elizabeth

50. Erica Ramirez (*ZIP code: 93003*)

51. Pat Browne (*ZIP code: 93012*)

52. Emma Aist (*ZIP code: 93004*)

53. Amber Bassett (*ZIP code: 93003*)

It is absolutely crucial that all efforts to create carbon neutral communities happens before 2045. Our climate in particular is affected by this.

54. Erlinda Farala (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on our global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Erlinda

55. Erlinda Farala (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about climate change and it's effects on global warming.

Thank you,

Erlinda

56. Faith Grant (*ZIP code: 91361*)

We need to have strong climate policies in Ventura. It's going to take major changes to even slow down climate change. Please listen to the electorate and endorse strong climate policies.

57. Jennifer Farin (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jennifer

58. Fiona Bremner (*ZIP code: 93003*)

59. Judith Wilson (*ZIP code: 93003*)

60. Gabriel Sandosham (*ZIP code: 95112*)

61. Gael Belden (*ZIP code: 93023*)

62. Geoffrey Dann (*ZIP code: 93003*)

The county must plan to mitigate the effects of climate change and help slow or reverse climate change. We should set an example for the rest of the country.

63. Gordon Clint (*ZIP code: 91320*)

64. gail hubbs (*ZIP code: 91320*)

65. George Vye (*ZIP code: 93004*)

66. Ashley Basquez (*ZIP code: 93012*)

Dear Ventura County Supervisors,

Please take care of our Climate Change Challenges for our future children and their children's children. Our land is so precious. We are the 5th richest county in Southern California and can make a positive impact.

Sincerely,
Ash

67. grant marcus (*ZIP code: 93001*)

68. Gene Fox (*ZIP code: 93004*)

69. Gwen Bell (*ZIP code: 93023*)

70. Helen Dziadulewicz (*ZIP code: 93010*)

71. Leicy Grace (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about climate change and it's effects on global warming.

Thank you,

Leicy

72. Michelle Cabrera (*ZIP code: 93001*)

73. Jack Weber (*ZIP code: 93023*)

Climate policy must be a priority; cease all fossil fuels and witch to renewables and make biking more safe! Thank you...

74. Jackson Piper (ZIP code: 91320)

This general plan will shape how development occurs in Ventura County in the near future and will affect the lives of County residents beyond the timeframe of the plan. It is essential that the plan acknowledges and does everything possible to prepare Ventura County and its residents for the dangers that we face due to climate change - whether or not some of our fellow residents wish to acknowledge that danger or our agency as a society in working to minimize its impact. Please improve upon the Draft General Plan by incorporating the suggestions of the Climate Hub into the final document, so that Ventura County and its residents can more effectively protect this place that is special to all of us.

75. Judy Duerr (ZIP code: 93004-1228)

76. Jaira Farala (ZIP code: 93030)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jaira

77. James Brehm (ZIP code: 93001)

78. Janet Sager Knott (ZIP code: 93023)

79. Jan Dietrick (ZIP code: 93001)

80. Jeff Otterbein (ZIP code: 93023)

81. Jennaci Feria (ZIP code: 93030)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jennaci

82. Jenny Pandol (ZIP code: 93001)

83. Jamee Faral (ZIP code: 93030)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jamee

84. Jonathan Farin (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jonathan

85. Jeff Farin (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Jeff

86. James Merrill (*ZIP code: 93033-7965*)

87. James Whitney (*ZIP code: 93001-1491*)

We need to act now, the climate will not take a time out for us to mull it over.

88. Joyce McIntire (*ZIP code: 91320*)

89. Jimmy Vasquez (*ZIP code: 93003*)

90. Karen Trowbridge (*ZIP code: 93035*)

We need to do everything possible to divert the impact of climate change or rather climate crisis here in Ventura County? We must act now!!!!

91. Joan Nygren (*ZIP code: 93023*)

We all need to take this seriously

92. Joe Connett (*ZIP code: 93001*)

Addressing climate change must be a priority!

93. John Brooks (*ZIP code: 93022*)

The climate action plan must be clear, drastic and enforceable.

94. Jon Wilk (*ZIP code: 93023*)

95. Jennie Altice (*ZIP code: 92128*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Jennie

96. Josie Sabalerio (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Josie

97. Karen Farin (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Karen

98. Karen Farin (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Karen

99. Karen Sher (*ZIP code: 93012*)

100. Karina Kaye (*ZIP code: 93035*)

101. Kate Higgins (*ZIP code: 93004*)

Vote Kim Stephenson for Cty Supervisor, District 3

102. Kathleen Wheeler (*ZIP code: 93003*)

103. Kaysha Farala (ZIP code: 93033)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on our global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Kaysha

104. Keith Nieves (ZIP code: 93001)

105. Kristen Kessler (ZIP code: 93004)

106. Katharine Merrill (ZIP code: 93033-7965)

We need to create a climate plan that is grounded in good science, and that means counting all the green house gas emissions from all sources.

107. Katherine Mack (ZIP code: 03023)

108. Kathleen Nolan (ZIP code: 93023)

109. Layla White (ZIP code: 93030)

Dear Ventura County Supervisors,

Please consider taking care of our climate and reducing the effects of global warming.

Sincerely,

Layla

110. Krystal Anderson (ZIP code: 92071)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Krystal

111. Diana Kubilos (ZIP code: 93004)

112. Kevin Ward (ZIP code: 93036)

The time is now for transitioning to non-fossil fuel products, all of them.

Solar, permaculture and voting for Bernie is a good defense against global warming already evident in fires, floods and, like Coronavirus, microbes. Any delay will make the US complicit with chosen

extinction. Think Green New Deal or nada.

113. Kristofer Young (ZIP code: 93023)

The climate portions of the general plan lacks specific, critical goals and mechanisms to ensure achieving them. We do not have time to waste.

114. Kyle Pobirs (ZIP code: 93004)

115. Lauren Mendez (ZIP code: 93030)

116. Lorren Carter (ZIP code: 92064)

Dear Ventura County Supervisors,

Global warming is happening right now we would like for you to consider our climate solutions, so we can live and breathe in a healthier and cleaner environment.

Sincerely,

Starsha

117. LeeAnne Christensen (ZIP code: 93021)

118. Leopoldo Lopez (ZIP code: 93003)

119. Leslie Purcell (ZIP code: 93001)

120. Yusef Kilea (ZIP code: 93035)

121. Liz Campos (ZIP code: 93002)

122. Sio Arden (ZIP code: 9303p)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Sio

123. Willard Lubka (ZIP code: 91362)

124. Lupe Anguiano (ZIP code: 93033-3449)

I continue expressing strong support for the recommendations made by CFROG and Climate Hub to the Ventura Country's 2040 DraftvGeneral Plan and EIR.

125. Madalitso Kalinde (ZIP code: 2461)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Madalitso

126. Mary Ann Krause (ZIP code: 93060)

127. Mary Nelson (ZIP code: 93036)
It is way past time to take action. Step up!

128. Maria Ornelas (ZIP code: 91320)

129. Marlena Roberts (ZIP code: 93041)

130. Marlene Breitenbach (ZIP code: 93035)

131. Martha Wolter (ZIP code: 93001)

132. Martha Fellows (ZIP code: 93023)

133. Martha Martinez-Bravo (ZIP code: 93012)

134. Meridel Carson (ZIP code: 93041)

135. Merrill Berge (ZIP code: 93010)

Since the General Plan process began we have seen horrific wildfires, sea level rise reports and been designated the warmest county in the lower 48. The next 20 years will only increase the impacts of climate change...Ventura County's General Plan must address this new reality with measurable, actionable policies that reduce our carbon emissions right here and right now.

136. Michele Burns (ZIP code: 93004)

137. Michelle Ellison (ZIP code: 93023)

138. Mina Nichols (ZIP code: 93036)

The good news is: if we admit that humans influence the weather, it's just a matter of time before we control the weather.

139. Mary Stanistreet (ZIP code: 93003)

140. Kari Aist (ZIP code: 93004)

141. Monica Gray (ZIP code: 93001)

142. Steven Nash (ZIP code: 93036)

Climate change must have primacy above all other significant impacts.

143. Dee Kiana Laborte (ZIP code: 93010)

144. Tim Nafziger (ZIP code: 93022)

Ventura County needs a robust climate component of our new general plan.

145. Nancy Merrick (ZIP code: 93003-242-)

146. norma gochin (ZIP code: 91362)

We need to address climate change, and we need to address it now. Our planet will not survive if we don't make plans immediately.

147. Nicolette Walker-Itza (ZIP code: 93023-2230)

148. Jaclyn Fillingame (ZIP code: 93060)

149. Nancy Tamarin (ZIP code: 91362-3212)

150. Denise Coin (ZIP code: 93001)

151. Karissa Sandoval (ZIP code: 93010)

152. Vickie Peters (ZIP code: 93023)

153. Olivia Lopez (ZIP code: 93030)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Olivia

154. Celia Ortenberg (ZIP code: 93030)

155. Pamela Lopez (ZIP code: 91362)

156. Pam Shellenbarger (ZIP code: 93001)

157. Paul Aist (ZIP code: 93004)

158. Margaret (Peg) Strobel (*ZIP code: 93003*)

The General Plan must take into account rapid, serious changes--drought and wildfires being the most obvious--from climate change. Since agriculture is a critical part of our economy, attention must be paid to that industry. Also important will be funding a way to seriously reduce oil and gas production, since it contributes to climate change. Plans to train workers to transition to new economic opportunities from climate-friendly industries must be planned. New and existing housing needs to be considered (weatherization to reduce electrical use from air conditioning). Climate change will impact everything that county government does.

159. Phil McGrath (*ZIP code: 93010*)

160. Rachelle Feria (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please consider the impact of global warming effecting our climate and the area we live in. Please consider our effective climate solutions that would benefit our humanity and biodiversity.

Sincerely,

Rachelle

161. Randall Edwards (*ZIP code: 91362*)

162. Ray Powers (*ZIP code: 93023*)

A thorough analysis and comprehensive climate action needs to be part of the general plan update. What's is currently being proposed is not sufficient.

163. Ricardo Lopez (*ZIP code: 93030*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Ricardo

164. Robert Dodge (*ZIP code: 93023*)

Climate change and its effects are one of our greatest existential threats and we must move away from a carbon based extractive economy as soon as possible. We urge you on behalf of the health and wellbeing of Ventura County and all of our citizens to adopt the strongest possible environmental protection in the Draft General Plan.

165. Ron Whitehurst (*ZIP code: 93001*)

We need to move to regenerative organic farming and landscaping to re-establish the small water cycles.

166. Ron Merkord (*ZIP code: 93015*)

Rising CO2 levels will soon have consequences for everyone, and Ventura County will see the first of

some of these effects, like increased wildfires and rising sea levels. We need to quit waiting for someone else to do something about it. Our own General Plan update is a great place to start.

167. Rominck Callo (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please consider taking care of our climate and reducing the effects of global warming.

Sincerely,

Romnick

168. rosemary fields (*ZIP code: 93004*)

Climate change affects the entire world all animals and humans.

169. Siomara Ardon (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Siomara

170. Scott eckersley (*ZIP code: 93023*)

171. Karen Karayan (*ZIP code: 93060*)

This is one of my top concerns! I worry about our children and their children's world if we don't do as much as we can to protect and heal our world! Ventura County can be one of the leaders in this effort!

172. Sarah Fleury (*ZIP code: 93060*)

173. Sasha Phan (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please consider taking care of our climate and reducing the effects of global warming.

Sincerely,

Sasha

174. Sonia Kroth (*ZIP code: 93001*)

175. Sharon Ray (*ZIP code: 93105*)

176. Starsha Farala (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change as it is currently happening. Please strongly do something about the impact towards global warming in our environment.

Sincerely,

Starsha Farala

177. steve nipper (*ZIP code: 93023*)

Because it's the right thing to do!

178. Steve Pinsky (*ZIP code: 93001*)

179. Kristin Storey (*ZIP code: 93023*)

180. Susan Williamson (*ZIP code: 93023*)

Get with you guys! Ventura is a coastal city! Duhhh. You need to host a climate convention to get input on what needs to be done in VC!

181. Susan Curtis (*ZIP code: 91361*)

182. Francesa Gonzales (*ZIP code: 93033*)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on our global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Francesa

183. Arthur Snyder (*ZIP code: 93036*)

Global warming is an existential threat.

184. Paul Burke (*ZIP code: 93012*)

185. Tessa Salzman (*ZIP code: 93001*)

186. Tina Frugoli (*ZIP code: 91362*)

187. Catherine Myers (*ZIP code: 93004*)

188. theresa hartigan (*ZIP code: ?93022*)

189. thomas miller (*ZIP code: 93004*)

190. Thomas Seigner (ZIP code: 91361)

Each new climate study outlines a more dire situation than the previous study. Even if we went carbon neutral today, future generations will still experience hardships we have not. NO MORE NEW FOSSIL FUEL PRODUCTION IN VENTURA COUNTY.

191. Tamara Hoyt (ZIP code: 93001)

Please address the climate crisis now

192. Todd Shuman (ZIP code: 93010)

I endorse this petition! It is time that Ventura County increase its commitment to reduce GHG emissions ...

193. Christine Samusick (ZIP code: 93001)

We need a desalination plant. Yesterday.

Water recycling must be encouraged and accommodated.

All styrofoam must be banned.

This is a partial list of actions that will help Ventura through this continual drought and help ease the burden on our landfill.

194. Vicki DeBear (ZIP code: 91311)

195. Vilma Pineda (ZIP code: 93033)

Dear Ventura County Supervisors,

Please care about the effects of climate change and its negative impact towards global warming.

Sincerely,

Vilma

196. Lori Bates (ZIP code: 93035)

197. Margot Davis (ZIP code: 93001)

The planning commission, or whoever it was that drafted the DEIR , I don't understand how they could have so missed the boat? I hope the board of supervisors will not miss the boat entirely and OK this general plan update the way it stands

198. Wilson Altice (ZIP code: 92128)

Dear Ventura County Supervisors,

Please care about the effects of climate change and the negative impact it has been making on global warming. Please consider our effective solutions to benefit our humanity and biodiversity.

Sincerely,

Wilson

1002726 AM 9:00

Diane Diedrich
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely,

A handwritten signature in blue ink, appearing to read "Diane Diedrich". The signature is fluid and cursive, with a large loop at the end.

Diane Diedrich

000 1102 2020
000 1102 2020
000 1102 2020

c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

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Attn: RMA Planning Division
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800 Victoria Avenue L#1740
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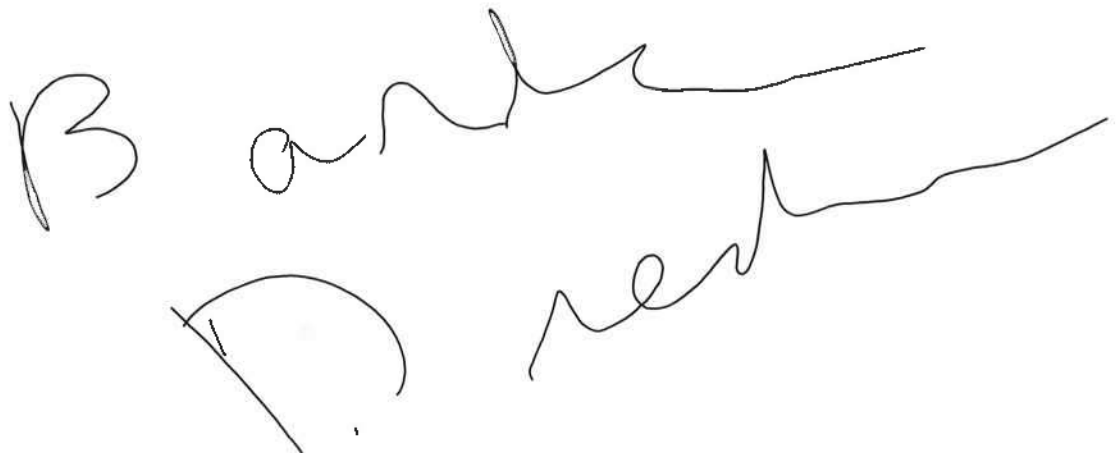
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Sincerely,

A handwritten signature in black ink, appearing to read "Brandon". The signature is written in a cursive, flowing style. The first name "Brandon" is written in a larger, more prominent script, while the last name "D. Neff" is written in a smaller, more compact script below it. The signature is positioned to the right of the word "Sincerely,".

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 3:36 PM
To: Simmons, Carrie
Subject: FW: Letter re General Plan Update
Attachments: Scan.pdf

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Duarte, Gabriel <G.Duarte@musicpeeler.com>
Sent: Thursday, February 27, 2020 3:35 PM
To: General Plan Update <GeneralPlanUpdate@ventura.org>; Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Letter re General Plan Update

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Please see letter attached on behalf of a concerned Ventura County resident.

Best,

Gabriel R. Duarte
Attorney

MusickPeeler

Musick, Peeler & Garrett LLP
2801 Townsgate Road Suite 200
Westlake Village, California 91361

Download V-Card
g.duarte@musicpeeler.com
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T (805) 418-3125
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This e-mail is confidential and may contain attorney client or otherwise privileged or private information. Unless you are an intended or authorized recipient, you may not use, copy or disclose this message or any information contained herein. If you have received this message in error, please advise us by reply email to: administrator@musickpeeler.com and delete the message and any attachments. Thank you.

Gabriel R. Duarte
4014 Brindisi Place
Moorpark, CA 93021

February 27, 2020

Ventura County Board of Supervisors
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

I'm writing to you as a concerned resident of the County regarding the viability of the oil and gas industry in Ventura County.

The 2040 General Plan Draft EIR fails to give proper analysis to oil and gas mineral resources.

Neither the EIR nor the Background report provide a complete and thorough description of the existing, current regulatory setting that oversees the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

The EIR fails to actually analyze for direct and indirect impacts to mineral resource zones that will occur as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses OVER known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. These incompatible land uses will significantly impact future mineral resource production and must be evaluated and mitigated for in the EIR.

The EIR never addresses indirect impacts to mineral resource development that will occur under the 2040 General Plan. As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to produce mineral resources in the County.

The Draft EIR is lacks critical analysis and must be corrected and recirculated to ensure a fair process for Ventura County residents.

Thank you,



Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 3:36 PM
To: Simmons, Carrie
Subject: FW: Ventura County General Plan Update EIR - SoCalGas Comments
Attachments: 20200227152300.pdf

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Pezda, Jennifer <JPezda@socalgas.com>
Sent: Thursday, February 27, 2020 3:34 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County General Plan Update EIR - SoCalGas Comments

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Hi Susan,

Please find attached a PDF version of SoCalGas' comments on the Draft EIR for the County's General Plan Update.

Let me know if you have any questions or concerns.

Sincerely,
Jenny Pezda

Jenny Pezda, MESM | Environmental Policy Advisor | **SoCalGas**
Office: 213-244-4570
Cell: 213-321-8443





Deanna Haines
Director of Policy, Strategy and Environment

Southern California Gas Company
Strategy & Engagement
555 W. Fifth Street, GCT 21C5
Los Angeles, CA 90013

Tel: 213.244.3010
Mobile: 213.220-1121
DHaines@socalgas.com

Susan Curtis
Manager, General Plan Update Section
Ventura County Resource Management Agency, Planning Division
800 South Victoria Avenue, L #1740
Ventura, CA 93009-1740

RE: County of Ventura – Draft 2040 General Plan Update EIR

Dear Ms. Curtis,

Southern California Gas Company appreciates the opportunity to submit comments on the Draft 2040 General Plan EIR (“DEIR”) and believes the document will provide valuable direction for the County to pursue effective, long-term development goals, as well as enhance local sustainability objectives. In particular, we support proposed policies that encourage beneficial reuse of County-generated waste for energy generation. Such policies have great potential to help reduce County GHG emissions, especially from agriculture and human waste streams.

However, SoCalGas is concerned by one of the County’s proposed mitigation measures: MM GHG-1: New Implementation HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development:

Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development – To support the proposed reach codes under COS-S, the 2040 General Plan shall include a new program in the Hazards and Safety element that prohibits the installation of new natural gas infrastructure in new residential construction through amendments to the Ventura County Building Code. This program shall also be extended to include commercial building types such as offices, retail buildings, and hotels where the use of natural gas is not critical to business operations and contain appliances that can be feasibility substituted with electricity powered equivalents.” (pg. 4.8-45-46).

While we support the County’s attempt to reduce emissions associated with buildings, this mitigation measure is technology-restrictive, may actually increase emissions and will limit the County’s ability to explore other innovative approaches to achieve emissions reductions in the future without deleveraging residents and businesses to hedge themselves against climate risks such as wildfires and household rising energy costs.

This type of ban would contravene California state law and policy as it relates to the availability of natural gas as a resource for residents and to the provision of a reliable and resilient energy supply. In addition, such a ban raises concerns under federal law.

Further, the DEIR's analysis and treatment of MM GHG-1 is legally flawed under the California Environmental Quality Act ("CEQA"). First, the DEIR fails to consider, discuss or analyze the environmental effects of implementing MM GHG-1. Second, the County cannot rely on MM GHG-1 to mitigate GHG impacts caused by the 2040 General Plan because MM GHG-1 is "infeasible" under CEQA. Lastly, by finding that climate change impacts would remain significant and unavoidable even with implementation of MMs GHG-1 through GHG-3, the County has neglected to consider other GHG emission reduction strategies as potential mitigation in the DEIR.

1. The DEIR Fails to Analyze the Environmental Impacts Associated with MM GHG-1

CEQA Guidelines section 15126.4(a)(1)(D) provides that, if a mitigation measure would itself cause significant environmental impacts, those impacts must be discussed in the EIR.¹ Here, the DEIR discusses what MM GHG-1 would consist of (*i.e.*, implementation of programs to prohibit natural gas infrastructure in new residential development, otherwise known as "Reach Codes"), notes that MM GHG-1 would implement Policy COS-8.6, which "will encourage zero net carbon emissions building design, which was assumed for quantifying GHG reduction benefits of the program", and states that implementation of a Reach Code will be predicated on a "cost-effectiveness study" by the California Energy Commission ("CEC").² However, the DEIR fails to discuss the potential environmental effects from implementing a Reach Code that bans or restricts natural gas in residential and/or commercial buildings.

Substantial evidence indicates that adopting and implementing MM GHG-1 and Reach Codes could lead to the following significant environmental impacts under CEQA.

- ***Utilities and Service Systems*** – In the CEQA Guidelines Appendix G checklist,³ section "XIX. Utilities and Service Systems" asks whether proposed projects would "[r]equire or result in the relocation or construction of new or expanded water, wastewater treatment or storage drainage, *electric power*, ... facilities, the construction or relocation of which *could* cause significant environmental effects."

¹ 14 Cal Code Regs. § 15126.4(a)(1)(D); *see also Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1027; *Stevens v. City of Glendale* (1981) 125 Cal.App.3d 986; *Ocean View Estates Homeowners Assn., Inc. v. Montecito Water Dist.* (2004) 116 Cal.App.4th 396, 400 (mitigation measures employed to prevent downstream flooding associated with reservoir project may themselves have a significant environmental impact, but was not analyzed); *Gray v. Cty. of Madera* (2008) 167 Cal.App.4th 1099, 1118 (EIR did not address potentially significant impacts associated with water quality mitigation measures).

² DEIR at 4.8-47.

³ *See* Governor's Office of Planning and Research, Final Adopted Text of Revisions for CEQA Guidelines, http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf.

Adoption and implementation of a Reach Code would require new buildings to either be all-electric or, if mixed-fuel, likely subject to higher levels of energy efficiency than all-electric buildings. It is reasonably foreseeable that some developers will choose to develop buildings with all-electric energy, which will increase the demand for electricity; however, there is no analysis in the DEIR as to whether (i) the local grid has the generating resources and capacity to meet such increased demand for electricity, or (ii) whether the local public utility or load-serving entity has sufficient distribution or transmission assets to provide increased service in a safe and reliable manner.⁴ The DEIR fails to quantify increased electricity demand, how many additional generation, distribution or transmission assets may be needed to facilitate this increased demand, or how the construction or relocation of such assets could impact the environment.⁵

The need to substantially overbuild local power systems when natural gas is not used as a base load means that a much greater amount of land, habitat and related physical resources will be impacted by solar and wind generation facilities. In a scenario where natural gas is banned across the state, new solar arrays and wind farms will need to be fabricated, transported to, and installed throughout California at more than five times the historical rate of deployment every year for the next 25 years.⁶ This deployment will significantly impact the physical environment across California. The fabrication, transportation and construction of the required generation facilities will also generate GHG emissions that would have cumulative climate change impacts.

In addition, as more electric energy is utilized new transmission capacity must be fabricated, transported to and installed throughout the state to connect with thousands of miles of new nationwide transmission lines. Additional transmission facilities will have significant impacts to the physical environment and result in aesthetic and potentially cultural impacts. The fabrication, transportation, and construction of new transmission equipment and capacity will also generate GHG emissions.

Because renewable generation is intermittent, California will also be required to increase power storage capacity to unprecedented levels if natural gas is banned. Additionally, California would need to dramatically increase hydropower capacity by increasing the size of state reservoirs by as much as 100 times above current levels. Battery storage on this scale would have significant hazardous materials, human health,

⁴ See, e.g., Pub. Res. Code § 451 (“Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.”).

⁵ Cf. *California Clean Energy Comm. v. City of Woodland* (2014) 225 Cal.App.4th 173, 208 (EIR for shopping center lacked required energy analysis despite stating, among other things, that existing facilities were sufficient to serve the project: “In addition, a substation, multiple utility lines (60 kV, 115 kV, and 230 kV), and gas transmission lines exist in the area to serve the buildout of the proposed project.”).

⁶ Clean Air Task Force, Comments On SB 100 Joint Agency Report - Charting a Path to a 100% Clean Energy Future, September 19, 2019, <https://efiling.energy.ca.gov/GetDocument.aspx?tn=229800&DocumentContentId=61244> (CATF 2019).

fire, fire suppression, and policing services, GHG emissions, and physical impacts. The construction of new hydropower storage would similarly have significant air quality, aquatic plant, animal and habitat, land, GHG emissions, water and hydrology, public safety, and other impacts.

CEQA caselaw holds that EIRs must consider the effects of changes to the environment that can result from an expansion of facilities, services, or utilities to serve the project.⁷ Here, DEIR Chapter 4.17 does not cross-reference MM GHG-1 and fails to discuss how implementation of MM GHG-1 may lead to expanded facilities, services or utilities that would be necessary in the future when a Reach Code is adopted.

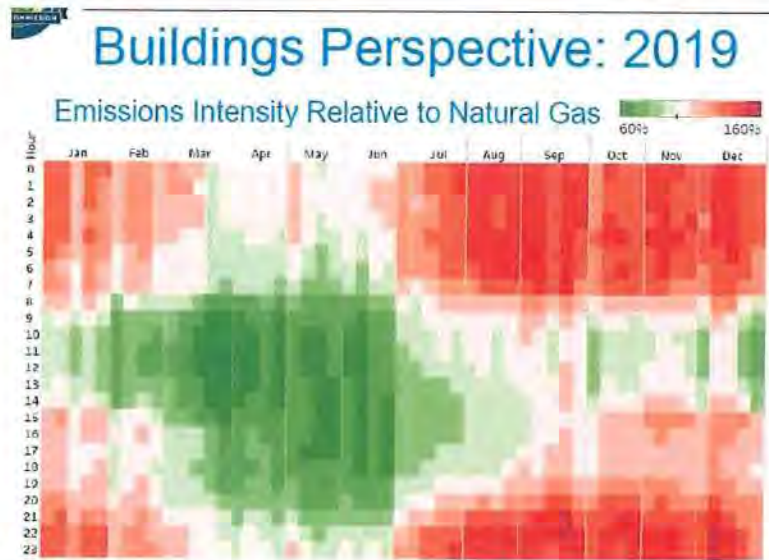
- **Greenhouse Gas (GHG) Impacts** – Implementation of a Reach Code under MM GHG-1 is predicated on the assumption that 100% electrified buildings are more energy-efficient and have a smaller carbon footprint than buildings with gas-powered appliances. Yet, multiple, independent studies demonstrate that such an assumption is not accurate.
 - In May 2019, the U.S. Department of Commerce, National Institute of Standards and Technology (“NIST”) published a study of the energy use, environmental impacts, and economic performance of residential buildings using either electricity or natural gas for space and domestic water heating. The analysis was based on a single-family home meeting all applicable building code requirements in Maryland. The NIST research concluded that a natural gas-heated home is more economical, results in “lower environmental impacts across numerous impact categories,” including lower GHG emissions, has a faster heating response time and generates a greater level of indoor comfort than an all-electric residence. In particular, GHG emissions were found to be higher because of the greater amount of fuels required to produce electricity for home use compared with the use of natural gas equipment in a residence.⁸
 - Although California has a larger proportion of renewable utility-scale energy than Maryland, consistent with the NIST study the CEC has also shown that, on average, natural gas generates substantially lower GHG emissions than electrical building use in California. As shown below, in 2018 the CEC estimated that electricity use in buildings produces a greater level of GHG emissions than natural gas about 60 percent of the year in California.⁹ Natural gas results in lower GHG emissions during a significant majority of all morning and evening hours in all months, the periods of highest residential energy demand. The significantly lower GHG emissions from natural gas use in California buildings

⁷ *Goleta Union Sch. Dist. v. Regents of Univ. of Cal.* (1995) 37 Cal.App.4th 1025; *El Dorado Union High Sch. Dist. v. City of Placerville* (1983) 144 Cal.App.3d 123.

⁸ E. O’Rear, D. Webb, J. Kneifel and C. O’Fallon. *Gas vs electric: Heating system fuel source implications on low-energy single-family dwelling sustainability performance*. Journal of Building Engineering. September 2019 issue. Full text available at https://tsapps.nist.gov/publication/get_pdf.cfm?pub_id=926046.

⁹ CEC, Building Decarbonization, 2018 Update – Integrated Energy Policy Report, Presentation by M. Brook at June 14 2018 IEPR Workshop at 16, <https://efiling.energy.ca.gov/GetDocument.aspx?tn=223817>.

reflects the fact that, except during daytime hours from about March to June, intermittent solar and wind is insufficient to meet in-state building energy demand. When intermittent renewable energy is not available, electrical generation is less efficient and produces a greater level of GHG emissions than natural gas use in California buildings.



- Other researchers have also questioned whether requiring all electric buildings might, however unintentionally, result in higher GHG emissions. Household energy demand tends to peak in the morning and evening hours, when residents are preparing to leave for or returning from work, school or other activities and when intermittent renewable power, particularly solar, is unavailable. At these times, electric supplies must be produced from other sources, including natural gas-fired power plants. Converting fuels, such as natural gas, to electricity to meet home demands is less efficient than directly using natural gas. As a result, a Stanford University researcher has estimated that when renewable power is unavailable, such as during the evening hours, residential electricity consumption produces *three times* more GHG emissions than natural gas.¹⁰
- The County cannot assume that, over time, GHG emissions from electrical generation will be reduced during peak morning and evening periods when natural gas is currently a lower emission energy source in the state. Recent studies indicate that even if additional intermittent wind and solar generation capacity is deployed, gas-fired electrical facilities will almost certainly remain essential to stabilize the state's power grid. The gas-fired generators serving the state, however, may be forced to increasingly operate as short-term inefficient

¹⁰ See Anthony R. Kavscek, *Is a natural gas ban an 'antidote to climate change'?*, San Jose Mercury News (Nov. 12, 2019), https://mercurynews-ca.newsmemory.com/?publink=754c8d2e3_13411ac. Professor Kavscek is a member of the Energy Resources Engineering faculty at Stanford University.

“peaker plants” which are known to emit more GHG emissions.¹¹ Thus, it is far from clear that an all-electric building mandate will reduce GHG emissions.

The DEIR must disclose and acknowledge potential GHG impacts that could occur from shifting building energy use from natural gas to electric power given reasonably foreseeable conditions in which electrical energy consumption would produce more GHG emissions than natural gas building use.

- **Energy Impacts** – Under the CEQA Appendix G Checklist, a project may involve a significant environmental impact if it would result in “wasteful” or “inefficient” energy consumption. MM GHG-1 seeks to prohibit the installation of new natural gas infrastructure in new residential construction. But nowhere does the DEIR discuss how that may result in either (i) a failure to use already captured natural gas, or (ii) the expenditure of additional energy to transport or divert natural gas elsewhere. Studies have shown that low carbon natural gas may continue to be a viable resource in assisting the state with reaching its climate goals, and should continue to be utilized in typically hard to electrify thermal applications in residential, commercial and industrial uses.¹² Specifically, Renewable Natural Gas (“RNG”), or biomethane, can be produced from biomass wastes (e.g. forest, agriculture, waste water and food and green waste) and then processed to inject into existing pipelines. Because its production removes more potent greenhouse gas from the air (methane) compared to what is produced when used (carbon dioxide), RNG production can be carbon negative from a lifecycle perspective. The County cannot determine whether full electrification policies will have unintended consequences of “wasteful” or “inefficient” energy use, without first analyzing these impacts in the DEIR.
- **Public Health and Safety** – In an era of increasingly dry and warm climates, and increased population in the wildfire urban interface along with build out of electrical infrastructure that could be an ignition source to serve population growth, California wildfires are occurring at increased frequencies and severities. Each of the three California investor-owned utilities adhere to wildfire mitigation plans (“WMP”) submitted to and approved by the California Public Utilities Commission (“CPUC”) — which establish internal mechanisms and protocols for de-energization events, also known as Public Service Power Shutoffs (“PSPS”). PG&E’s most recent PSPS event (occurring on October 6, 2019) impacted over 728,980 customers in 35 counties across the Sacramento Valley, Sierra Foothills, North Bay, South Bay, East Bay, Central Coast,

¹¹ See, e.g., Mark Thurber, *Gas-fired generation in a high-renewables world*, Stanford University School of Earth, Energy & Environmental Sciences and Precourt Institute for Energy Natural Gas Initiative, NGI Research Brief (June 2018), https://ngi.stanford.edu/sites/g/files/sbiybj14406/f/NGI_Brief_2018-06_R3_Thurber.pdf.

¹² Energy + Environmental Economics, *Decarbonizing Pipeline Gas to Help Meet California’s 2050 Greenhouse Gas Reduction Goal* (Jan. 2005), https://www.ethree.com/wp-content/uploads/2017/02/E3_Decarbonizing_Pipeline_01-27-2015.pdf.

and parts of Southern California.¹³ Southern California Edison (“SCE”)— the investor-owned utility whose service territory includes the County — is likewise obligated to implement PSPS protocols in certain circumstances giving risk to wildfires and has done so on numerous occasions in 2019 and 2020. For example, on November 15-17, 2019, SCE instituted a PSPS event that was initially estimated to impact 31,975 customers on 48 circuits across four counties (including the County), although had a much smaller impact than originally considered.

It is evident that increasing the amount of power needed from the electrical grid, such as by reducing the use of natural gas and increasing the use of electricity, will only exacerbate these problems. Until that time, however, PSPS events will be the “new norm,” both in Northern and Southern California. In addition to the large-scale economic losses that customers suffer as a result of a PSPS event, public safety issues can also arise due to several factors. These include loss of power at critical medical facilities, added strain on first responder services (such as local police departments and EMTs), loss of school days, and disruption of critical city infrastructure during emergency responses (such as traffic lights). Although MM GHG-1 will contribute to an overloaded grid and exacerbate the economic and safety implications from future, likely PSPS events; the DEIR mentions none of these issues.

The County should consider how increased deployment of other technologies, such as microgrids and energy storage projects, can help achieve decarbonization and resiliency goals. A 2018 CEC report found that microgrid projects offer a number of “value propositions,” including renewable energy integration, grid resiliency, and carbon reductions.¹⁴ The CEC report concluded that microgrid projects align with the state’s Renewables Portfolio Standard and GHG reduction mandates.¹⁵ The County should analyze the effectiveness of these mitigation options instead of a ban on natural gas.

- ***Impacts on Biological Resources, Water Quality and Noise Stemming From Additional Renewable Generating Resources*** – As stated above, the County has not demonstrated how adopting and implementing MM GHG-1 will impact existing electricity demand. In other words, no evidence exists to support the notion that existing or future electricity load could meet energy demands if natural gas infrastructure is banned for all future residential construction. Rather, it is reasonably foreseeable that new renewable energy resources will be needed, in addition to those required under the California Renewables Portfolio Standard (“RPS”), to meet new building electrification policies. The CEC’s 2019 *California Energy Efficiency Action Plan Staff Report* acknowledges that statewide

¹³ PG&E, “Public Safety Power Shutoff (PSPS) Report to the CPUC Oct. 9-12, 2019 De-Energization Event” (Oct. 25, 2019), at https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-10.09.19.pdf.

¹⁴ Asmus, Peter, Adam Forni, and Laura Vogel. Navigant Consulting, Inc. 2017. *Microgrid Analysis and Case Study Report*. California Energy Commission. Publication Number: CEC-500-2018-022, <https://ww2.energy.ca.gov/2018publications/CEC-500-2018-022/CEC-500-2018-022.pdf>

¹⁵ *Id.* at ii.

building electrification efforts “will seek to increase the share of renewable generation on the electricity grid...”¹⁶

The DEIR does not analyze how development of foreseeable additional renewable generating resources will impact the environment. Because it is likely that the County can determine with particularity the amount of MW or MWh that will be needed to fully implement MM GHG-1 in years to come, an accompanying analysis of generating resources and their potential environmental impacts must be provided. These renewable resource facilities are known to have their own environmental impacts associated with construction and operation, including but not limited to, impacts on federal and California sensitive species, water quality and quantity, nearby noise receptors, and project-related air quality impacts.

Because such commercial-scale facilities might be located outside the County does not insulate the County from its obligation to consider the indirect environmental impacts from MM GHG-1. Indeed, “the purpose of CEQA would be undermined if the appropriate governmental agencies went forward without an awareness of the effects a project will have on areas outside of the boundaries of the project area.”¹⁷ It is well-settled that “the project area does not define the relevant environment for purposes of CEQA when a project's environmental effects will be felt outside the project area.”¹⁸

- **Environmental Justice** – “Environmental justice” is defined as “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” Gov. Code § 65040.12(e). An Attorney General report defines “fairness” in this context to mean that “the benefits of a healthy environment should be available to everyone, and the burdens of pollution should not be focused on sensitive populations or on communities that already are experiencing its adverse effects.” “In addition, though CEQA’s main purpose is to evaluate whether a project may have a significant effect on the physical environment, “human beings are an integral part of the environment.”

The CEQA Guidelines state that “[e]conomic or social effects of a project may be used to determine the significance of physical changes caused by the project. For example, if the construction of a new freeway or rail line divides an existing community, the construction would be the physical change, but the social effect on the community would be the basis for determining that the effect would be significant.” Here, MM GHG-1 would require the construction of new electric infrastructure, including within the County, to supply the electricity necessary to support a natural gas ban. This

¹⁶ California Energy Commission, *2019 Energy Efficiency Action Plan Draft Staff Report*, <https://efiling.energy.ca.gov/getdocument.aspx?tn=229496>.

¹⁷ *Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 369.

¹⁸ *County Sanitation Dist. No. 2 of Los Angeles County v. County of Kern* (2005) 127 Cal.App.4th 1544, 1582–1583.

physical change to the environment will lead to cost increases for ratepayers, an economic impact which must be considered under CEQA.

Before the County can adopt MM GHG-1, the DEIR must consider the impact it will have on customer affordability and ratepayers. About 90 percent of residential energy consumers in Southern California use natural gas for space and water heating, and ratepayers prefer a choice in how they heat their homes and cook their food. Further, according to a 2018 study produced by Navigant Consulting on behalf of the California Building Industry Association, switching to all-electric appliances could cost single-family homeowners in Southern California “over \$7,200 and increase energy costs by up to \$388 per year.” Low-income customers would be the most burdened by the costs of building electrification.

Thus, as a result of adopting MM GHG-1, the County will have effectively established an unnecessary energy policy that will disproportionately impact its disadvantaged communities. Under CEQA, the County cannot gloss over this potential impact.

Given the substantial evidence that adopting and implementing MM GHG-1 will result in potential significant environmental impacts, the County is required to undertake proper CEQA review of such impacts, including both the direct and indirect environmental impacts stemming therefrom.

2. MM GHG-1 is Not “Feasible” under CEQA

Pursuant to CEQA Guidelines section 15126.4(a)(1), an EIR must “describe feasible measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy.” “Feasible” means “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”¹⁹ Courts do not defer to an agency’s determination that mitigation measures will work when their efficacy is not apparent and there is no evidence in the record showing they will be effective.²⁰ Here, there is no evidence that MM GHG-1 is feasible as a means to mitigate GHG-related impacts associated with the 2040 General Plan. In fact, evidence demonstrates that natural gas bans are environmentally, economically and technologically infeasible.

Intermittent Renewable Generation Inhibits Feasibility of a Natural Gas Ban

Since 2015, several studies have evaluated the results of multiple assessments of national and California decarbonization strategies and options.²¹ Other studies have considered the power

¹⁹ CEQA Guidelines § 15364.

²⁰ See, e.g., *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1168; *Communities for a Better Env’t v. City of Richmond* (2010) 184 Cal.App.4th 70, 95; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1116-17.

²¹ See, e.g., P. Loftus et al., A critical review of global decarbonization scenarios: what do they tell us about feasibility?, WIREs Climate Change, January/February 2015, <https://www.researchgate.net/publication/267875650> A critical review of global decarbonization scenarios w

system and costs associated with relying solely on intermittent renewable power for decarbonization, in contrast with approaches that also utilize fossil fuels with CCS or renewable natural gas (“RNG”).²² These studies consistently conclude that renewable generation without a reliable baseload power source cannot achieve deep carbonization, will require installing massive amounts of additional generation and distribution facilities, and will be unaffordable.

- Relying on variable renewable sources such as wind, hydroelectric and solar to decarbonize will require the fabrication, installation and operation of approximately 3 to 10 times the level of solar and wind facilities that would be required if a reliable lower-carbon energy source was also utilized.²³ This overbuilding is required as intermittent power cannot achieve its nominal nameplate capacity—100 megawatts of solar or wind power will produce approximately 20-40 percent of capacity per year compared with approximately 90 percent capacity rates for natural gas. Thus, a much larger power system must be built to produce enough energy.
- As the percentage of intermittent renewable power serving a community increases, the amount of energy that is “curtailed” or wasted because it is not produced when needed can approach 40 percent of total generation.²⁴ Due to the timing mismatch between demand and the availability of solar and wind power, wind and solar would be unable to meet about 30 percent of California’s annual energy demand.²⁵ As a result, massive electrical power storage must be constructed, installed and operated

[hat do they tell us about feasibility A critical review of global decarbonization scenarios](#) (analysis of 17 decarbonization studies); J. Jenkins et al., Deep decarbonization of the electric power sector: insights from recent literature, Energy Innovation Reform Project, March 2017, <https://www.innovationreform.org/wp-content/uploads/2018/02/EIRP-Deep-Decarb-Lit-Review-Jenkins-Thernstrom-March-2017.pdf> (analysis of 30 decarbonization studies); S. Brick, Renewables and decarbonization: studies of California, Wisconsin and Germany, The Electricity Journal, 2016, https://www.researchgate.net/publication/299380869_Renewables_and_decarbonization_Studies_of_California_Wisconsin_and_Germany/fulltext/57dc15a408ae4e6f18469f9d/299380869_Renewables_and_decarbonization_Studies_of_California_Wisconsin_and_Germany.pdf?origin=publication_detail (analysis of California, Wisconsin and German studies); and J. Jenkins et al, Getting to zero-carbon emissions in the electric power sector, Joule, 2018, <https://www.sciencedirect.com/science/article/pii/S2542435118305622> (analysis of 40 studies).

²² See, e.g., N. Sepulveda et al, The role of firm low-carbon electricity resources in deep decarbonization of power generation, Joule, November 2018, <https://www.sciencedirect.com/science/article/pii/S2542435118303866?via%3DiHub> and B. Frew et al., Flexibility mechanisms and pathways to a highly renewable US electricity future, Energy, 2016, <https://web.stanford.edu/group/efmh/jacobson/Articles/Other/16-Frew-Energy.pdf>.

²³ See, e.g., P. Loftus et al., A critical review of global decarbonization scenarios: what do they tell us about feasibility?, WIREs Climate Change, January/February 2015, https://www.researchgate.net/publication/267875650_A_critical_review_of_global_decarbonization_scenarios_what_do_they_tell_us_about_feasibility and J. Jenkins et al., Deep decarbonization of the electric power sector insights from recent literature, Energy Innovation Reform Project, March 2017, <https://www.innovationreform.org/wp-content/uploads/2018/02/EIRP-Deep-Decarb-Lit-Review-Jenkins-Thernstrom-March-2017.pdf>.

²⁴ J. Jenkins et al, Getting to zero-carbon emissions in the electric power sector, Joule, 2018, <https://www.sciencedirect.com/science/article/pii/S2542435118305622> based on

²⁵ CATF 2019.

to capture a community's surplus intermittent power generation. In California alone, storing surplus generation would require batteries with an instantaneous capacity "larger than the generating capacity of the entire US electric grid." Even assuming battery storage costs fall dramatically to \$80 per megawatt, California communities would be required to pay about \$2.9 trillion to secure the necessary power storage.²⁶

- To increase the reliability of intermittent renewable energy, significant new large-scale transmission will be required to "knit together diverse wind, sun and hydro resources" including as much as "a twenty-fold increase in US transmission capacity and interties for very high renewable energy scenarios, according to the National Renewable Energy Laboratory."²⁷
- Due to the need for overbuilding, energy storage increases, and new transmission capacity, decarbonization using intermittent renewables without reliable low-carbon power sources would be unattainably expensive. The cost of electricity generation in California has been estimated to rise from about \$58 per megawatt hour with 60 percent renewable generation to \$389 using 80 percent renewable power, and an astonishing \$1,402 per megawatt hour at 100 percent renewable levels even assuming that the cost of wind, solar and storage falls substantially.²⁸ Other studies have estimated that California communities would pay more than \$1,600 per megawatt hour using 100 percent renewable power.²⁹

A Natural Gas Ban is Economically Infeasible for Customers

According to 2019 survey data published by the U.S. Energy Information Agency, the average household in California currently consumes about 7 megawatt hours of energy at a cost of approximately \$1,000 (\$0.14 per kilowatt hour). Published estimates indicate that California electrical generation costs could rise by 8 to 24 times current levels with 60 percent renewable power, higher utilization of renewables than at present. California households would also use more electrical power over time for transportation and other needs under a 100 percent renewable power scenario. Assuming that the average household electrical demand increases to 10 megawatt hours per year,³⁰ and that prices do not significantly increase until renewable use reaches 80 to 100 percent of total generation, the average California household electric bill

²⁶ CATF 2019.

²⁷ CATF 2019.

²⁸ CATF 2019.

²⁹ J. Temple, The \$2.5 trillion reason we can't rely on batteries to clean up the grid, MIT Technology Review, July 27, 2018, <https://www.technologyreview.com/s/611683/the-25-trillion-reason-we-cant-rely-on-batteries-to-clean-up-the-grid/>.

³⁰ EIA, *How much electricity does an American home use?* (Oct. 2, 2019), <https://www.eia.gov/tools/faqs/faq.php?id=97&t=3> (explaining that in 2018, the average annual electricity consumption for a U.S. residential utility customer was 10,972 kWh).

would increase to about \$8,000 per year at 80 percent renewable use, and to about \$24,000 per year with 100 percent renewable use.

Annual cost increases of this magnitude could be expected to stimulate significant population relocation to lower cost communities. Physical relocation, including the use of larger, high emission vehicles, could have significant impacts on air quality, population and housing. High household energy costs would also have significant health and safety impacts, including higher mortality and illness rates for vulnerable populations due to the inability to heat or cool homes. Direct relocation GHG emissions, and additional emissions that could occur from the movement of large amounts of households to lower cost communities with higher average household emission rates could also generate significant cumulative climate change impacts.

Higher electrical power costs could also result in the relocation, or failure to open and operate businesses in the state and the relocation of these activities to lower cost, higher-emission communities. As discussed in a January 2020 report by the California Legislative Analyst's Office, California communities already have disproportionately higher energy costs than most of the U.S. compared with marginal generation expenses. Consequently, higher costs associated with 100 percent renewable energy could generate significant GHG impacts.

3. The DEIR Finds that GHG Impact 4.8-1 Will Remain Significant and Unavoidable, but Does So Without Considering Other Feasible and Effective GHG Mitigation

Under CEQA, a lead agency may not adopt a project unless it has eliminated or substantially lessened all significant effects on the environment, or determined that remaining significant effects are acceptable due to overriding considerations.³¹ Here, the County concluded that, with the implementation of all identified GHG mitigation measures, Impact 4.8-1 would remain significant and unavoidable.³² However, the County cannot adopt this finding without implementation all feasible mitigation measures.³³ While it is true that "an EIR need not analyze 'every imaginable alternative or mitigation measure' ...," it "must respond to specific suggestions for mitigating a significant environmental impact unless the suggested mitigation is facially infeasible."³⁴

SoCalGas urges the County to consider other GHG emission-reduction strategies that are scalable and easier to implement, more resilient and more affordable. Specifically, the use of renewable gases such as hydrogen and renewable natural gas (RNG), are low carbon to negative fuels that can dramatically reduce county greenhouse gas emissions and provide optionality and flexibility for the energy system.

³¹ Pub. Res. Code. § 15092(b).

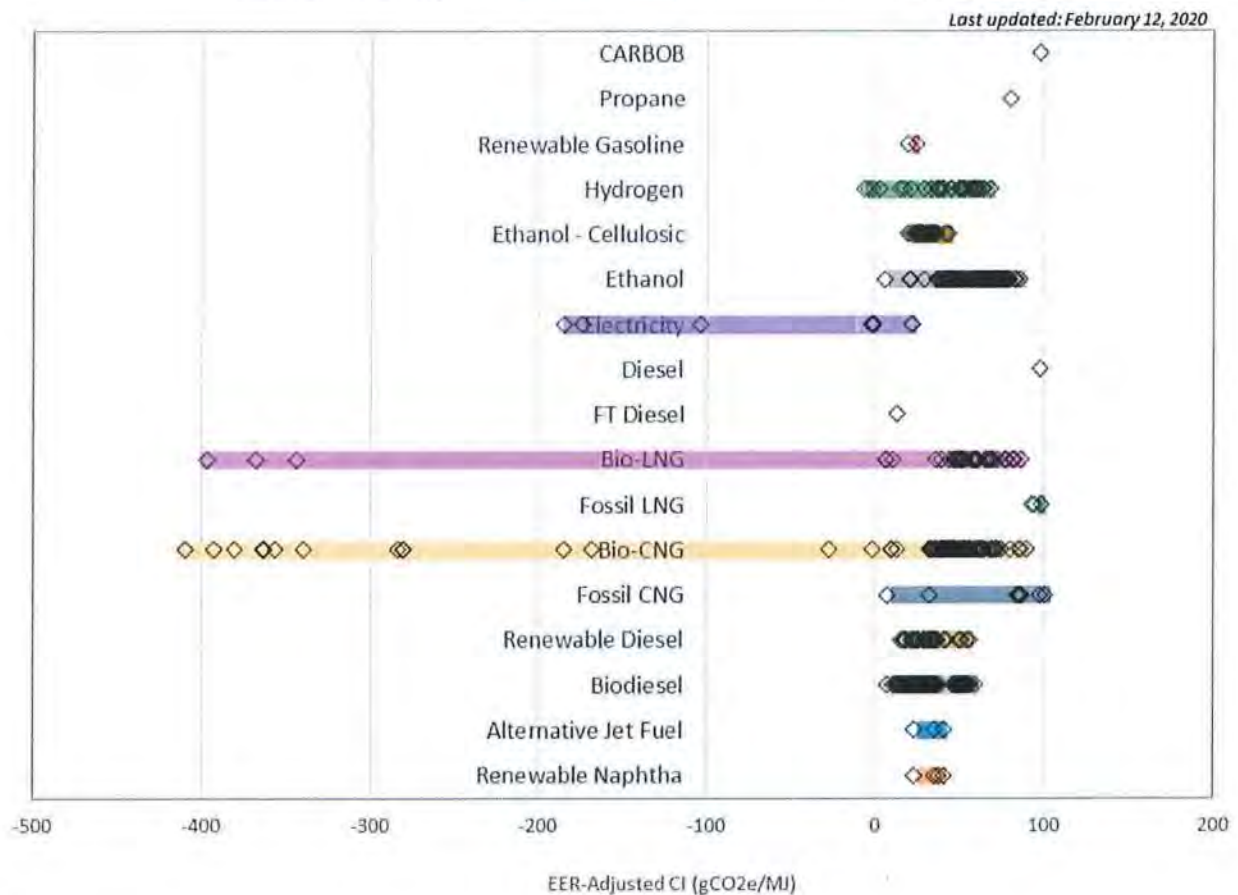
³² DEIR at 4.8-49.

³³ Guidelines §§ 15043(a), 15092(b).

³⁴ *Los Angeles Unified Sch. Dist. v. City of Los Angeles* (1997) 58 Cal. App. 4th 1019, 1029; citing *San Francisco Ecology Center v. City and County of San Francisco* (1975) 48 Cal.App.3d 584, 596 (EIR did not respond to School District's suggestion that air conditioning and filtering might prove feasible means of reducing air quality impacts under proposed plan).

As stated in our prior comment letter for the General Plan Update (attached), RNG, or biomethane, can be produced from a variety of waste resources (e.g. agricultural waste, forest biomass, waste water, and landfills) and then processed to meet pipeline specifications. Further, green hydrogen can be produced from excess solar and wind power generated when demand is low. The hydrogen can then be stored for later use in hydrogen fueling stations, be used for electric generation in fuel cells, and/or blended into the gas pipeline system to decarbonize gas supply which benefits all sectors. This technology, called Power-to-Gas, has been demonstrated in numerous pilot projects, including UC Irvine.³⁵

Carbon Intensity Values of Current Certified Pathways (2020)



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Renewable Gases Can Achieve Numerous Co-Benefits

Because most production of renewable natural gas removes methane from the air and converts it to carbon dioxide when used, RNG production can be significantly carbon negative from a

³⁵ UCI Samueli School of Engineering. UCI and SoCalGas Partner to Design "Advanced Energy Community." December 2017. Available at: <https://engineering.uci.edu/news/2017/12/uci-and-socalgas-partner-design-advanced-energy-community>

³⁶ California Air Resources Board. LCFS Certified Pathway Carbon Intensities. February 2020. Available at: <https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities>

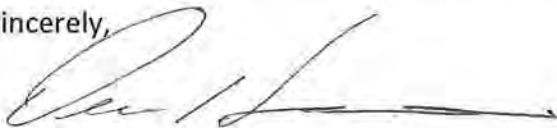
lifecycle perspective. Renewable gases can also achieve numerous co-benefits by helping the energy system be more flexible and work across sectors. For example, conversion of dead trees or other forest waste to renewable gases can dramatically reduce wildfire risks. The Power to Gas concept that can convert excess renewable electricity to hydrogen and store it for months instead of hours as in the case with batteries enables extension of the renewable energy for long durations to meet demand. Finally, renewable gases can reduce greenhouse gases in hard to decarbonize sectors such as agriculture and industry which form the economic engine of California. As the County is aware, SoCalGas is working towards the goal of replacing 5% of our natural gas supply with RNG by 2022, and 20% by 2030.

The CPUC is evaluating the levels of hydrogen that can be blended into the natural gas system. Just last month, Lawrence Livermore National Labs issued a study of how California can get to carbon neutrality by leveraging the gas pipelines and their rights-of-way to convey hydrogen and carbon dioxide.³⁷ In fact, the most cost-effective carbon negative solution is to convert biomass waste to hydrogen and sequester the carbon via pipelines using the rights-of-ways of the natural gas system. In addition, studies show that replacing roughly 16% of SoCalGas throughput with RNG achieves the same emissions reductions as electrifying the entire building sector by 2030.³⁸

Inclusion of RNG as a mitigation strategy also aligns with policies already included in the Draft General Plan. In particular, policies PFS-5.4, PFS-5.5, PFS-5.6, and COS-8.1 all support reuse of waste resources for energy generation as well as replacement of fossil fuels with renewable energy resources, including bioenergy. Accordingly, the use of renewable gases as a mitigation measure seems a natural complement to these policies, whereas a ban on gas infrastructure seems counterproductive. Therefore, we encourage the County to replace Mitigation Measure GHG-1: Prohibit Natural Gas in New Residential Construction, with an alternative mitigation measure that is performance-based, technology neutral and allows for flexibility in use of renewable fuels to help achieve emissions reductions.

We appreciate the opportunity to submit comments on the DEIR and look forward to working with the County as a valuable energy partner to achieve their environmental goals. If you have any questions, please do not hesitate to reach out via telephone or email.

Sincerely,



Deanna Haines
Director Policy, Strategy and Environment

³⁷ Lawrence Livermore National Laboratory. Getting to Neutral. January 2020. Available at: https://www-gs.llnl.gov/content/assets/docs/energy/Getting_to_Neutral.pdf

³⁸ Navigant Consulting, Gas Strategies for a Low-Carbon California Future (April 2018).

Simmons, Carrie

From: Carrie Simmons <csimmons@civicspark.lgc.org>
Sent: Thursday, February 27, 2020 3:38 PM
To: Simmons, Carrie
Subject: Fwd: FW: General Plan / EIR Comments
Attachments: image001.png

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Carrie Simmons
CivicSpark Climate Fellow
Central Coast
csimmons@civicspark.lgc.org
805-654-2834



CivicSpark is a program of the Local Government Commission
www.civicspark.lgc.org

----- Forwarded message -----

From: Curtis, Susan <Susan.Curtis@ventura.org>
Date: Thu, Feb 27, 2020 at 2:20 PM
Subject: FW: General Plan / EIR Comments
To: Carrie Simmons <csimmons@civicspark.lgc.org>

Susan Curtis | Manager

General Plan Update Section

susan.curtis@ventura.org



Ventura County Resource Management Agency | Planning Division

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Ventura County General Plan Update. Join the conversation at VC2040.org

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From: Meghan McMonigle <meghancmcmonigle@gmail.com>

Sent: Thursday, February 27, 2020 2:19 PM

To: Curtis, Susan <Susan.Curtis@ventura.org>; Bev Denicola <de.nicola@cox.net>

Subject: General Plan / EIR Comments

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To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

Meghan Chambers McMonigle

--

Meghan McMonigle

KTLA 5 Technology Segment Producer

5800 Sunset Blvd. Los Angeles, CA 90028 | *Office: 323-460-5520* | *Cell: 323-371-4042*



Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 3:47 PM
To: Simmons, Carrie
Subject: FW: Petition (205 signers): Count and Mitigate Impacts of Climate Change - Comments and Recommendations
Attachments: Petition VC2040 Draft EIR Sponsor 350 VC Climate Hub.pdf

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit VC Citizen Access



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: 350 Ventura County Climate Hub <VCClimateHub@gmail.com>
Sent: Thursday, February 27, 2020 3:45 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>
Cc: Bennett, Steve <Steve.Bennett@ventura.org>
Subject: Petition (205 signers): Count and Mitigate Impacts of Climate Change - Comments and Recommendations

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Dear Susan Curtis,

Our policy team compiled and began sharing the attached petition five and a half days ago. Today is our second largest day of signing with a current total of 205 from diverse sectors, mostly West Ventura County. It would not be eight pages long if more of our intelligent recommendations from last year had been adopted and retained by staff. The process would be more efficient and the plan more germane to the many serious impacts of the climate and ecological crisis if you would consult with our team of topical experts before you release the next drafts.

There could be over 500 signatures if we continue asking people to read it.

Please confirm that you received the petition and the 204 signatures and comments emailed via Action Network.

Yours,

Jan Dietrick, Policy Team
350 Ventura County Climate Hub

Petition

Count and Mitigate Impacts of Climate Change in Draft EIR and General Plan Comments and Recommendations

To: Ventura County Board of Supervisors
From: Jan Dietrick and 204 Signatories

With worsening climate change impacts, we reiterate and amplify the concerns the people expressed in January of last year about “climate change and GHGs, and the effects of continued oil and gas extraction including secondary effects related to climate change, air quality, water quality, water supply, traffic, noise, odors, aesthetics, and hazards.”

Our county is warming faster than any other in the nation, our ocean is becoming more hostile to marine life, our last drought was the most intense and lasted longest, and our history of costly floods will be dwarfed when future atmospheric rivers pour over our valleys. Our house is on fire. We need a thorough plan and environmental impacts analysis based on the latest science.

Ventura County’s plan matters. Our larger cities are making climate action plans and look for your example of leadership. The environmental impact from what we do to mitigate climate impacts at the global scale is profoundly influential in trying to stop runaway climate change. This is explained in a new report Insights from the California Energy Policy Simulator about the role of the State of California in the world. Ventura County as a local government hit hardest by climate impacts must step up and meet serious goals. “Insights about California’s climate policies are at the forefront of global efforts to battle climate change. The state’s leadership and success so far have helped maintain momentum despite political headwinds. If California faltered, global efforts to reduce GHG emissions would be dealt a major setback. Meanwhile, the severe risks from runaway global warming are becoming more tangible as the state suffers from wildfires supercharged by climate change.”

A. Four Overall Comments:

We are grateful for the expertise at the law firm of Shute, Mihaly and Wineberger retained by CFROG regarding CEQA. We have appreciated their past comments. We join them in continuing to request the following:

1. Count ALL GHGs that result from activity in our county: Count all burning of oil and gas originating in our county and count all fugitive methane from wells in our county and from methane entering our county that was not counted at the jurisdiction of origin. Do the math on the GHG footprint for heavy exports. We want to mitigate our fair share of all climate impacts from activities within Ventura County. We have to know what they are. Worrying about double counting is not acceptable. Just worry that you haven't counted every cause of climate impacts that we are morally and legally responsible to mitigate with a comprehensive inventory and a systematic plan.

2. Use the latest science to calculate GWP of methane: The global warming potential of GWP is nearly 40 percent greater than what you are using. The International Panel on Climate Change states that over a 20 year period, methane has a GWP of 84 compared to carbon dioxide (up from their previous estimate of 72). The US EPA estimates it at 87 and recent scientific experts put the estimate at 96. We must know the true environmental impact of methane emissions. A complete and scientifically valid GHG inventory is required for a CEQA-compliant Climate Action Plan.

3. Use the emissions reduction goal from Governor Brown's Executive Order B-18-55 "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing greenhouse gas emissions." It is an inadequate compromise, but not as much as the SB 32 goal of 80% below 1990 levels by 2050. City of LA plans to stay within a net zero carbon budget between now and 2045. The proposed GHG reductions in the VC2040 Draft of 41 percent below 2015 levels by 2030, 61 percent by 2040, and 80 percent by 2050 are not ambitious enough for us to do our part to mitigate the climate chaos happening faster than scientists have predicted.

4. Policies and programs must meet the goal: It does not take an in-depth analysis to see that this plan will not achieve the 2030 goal of 40% reduction in GHGs below 1990 levels. A new report Insights from the California Energy Policy Simulator shows that the State of California will fall short of that goal by at least 15 and as much as 45 MMT CO₂e. We have and continue to advocate for a goal aligned with Governor Brown's Executive Order to achieve carbon neutrality as soon as possible and no later than 2045.

B. Some Comments about Impacts and Mitigation

The environmental impacts that concern us are those resulting from governments not making and carrying out plans to mitigate climate change. Your draft analysis does not include most of them. Table B in the Executive Summary is not even half finished. Some of the more serious impacts are missing from the draft analysis. Here are a few of our concerns:

1. Aesthetics, Scenic Resources and Light Pollution and Agriculture and Forest Resources: Mitigation programs are needed to protect our resources from degradation from significant climate impacts. The loss of soil in particular is associated with the downfall of civilizations.

2. Air Quality: The emissions impacts from exceeding criteria pollutant thresholds and also greenhouse gases seem significant and can be mitigated.

3. Biological Resources: The new implementation program is a good start to “update the Initial Study Assessment Guidelines, Biological Resources Assessment report criteria and evaluate discretionary development that could potentially impact sensitive biological resources”. Two kinds of impacts are missing. 1) Climate Change. A major mitigation is the restoration of wetlands which should be at a 2:1 or greater ratio. Stormwater management is another mitigation that reverses the loss of vegetation from drought and floods and supports the restoration of all of the indigenous biology that makes an ecosystem function to maintain the small water cycles. 2) Toxic Pesticide and Herbicide Use and Drift. This must be part of the agenda of a Program for Protection of Sensitive Biological Resources to promulgate the mitigations provided by Integrated Pest Management. Pest management policy must align with the recommendations of the California Department of Pesticide Regulation Roadmap for Integrated Pest Management some of which have climate mitigation co-benefits.

4. Energy: We want a workshop to learn how it is deemed less than significant to allow wasteful, inefficient, or unnecessary consumption of energy resources.

5. Greenhouse Gas Emissions: The climate change impacts are so dire that the mitigations need to be benchmarked to be achieved before it is too late to reverse runaway climate chaos. At minimum we demand a systematic plan for decarbonization of county facilities and electrification of the transportation system.

6. Hazards, Hazardous Materials, and Wildfire: The impacts of toxic explosions, leaks, and spills and the drift of regulated materials and the ignorance of the public about toxic impacts must be addressed where feasible through mitigations that regulate the use and transport of hazardous materials. We have recommended feasible mitigations for people being exposed to the risk of wildfires that have not been accepted by decision-makers.

7. Hydrology and Water Quality: Impacts from climate change and poor land management have led to grave threats to water supply and water quality. These are highly significant--ground water overdraft, overuse and degradation of water quality, erosion, flooding, and siltation. (Impact 4.10-12) The failure to restore small water cycles to keep stormwater in the uplands and maintain forest health is one of the most

serious impacts being mitigated in many places through a paradigm shift about stormwater management. Mitigation is essential--water is life. It requires an integrated water management plan that involves every sector working on every mitigation of which we are aware.

8. Land Use and Planning We want an analysis of incompatible land uses and new development with negative health implications. Closing wells near sensitive sites is a mitigation. Environmental Justice is not examined in the draft EIR.

9. Mineral and Petroleum Resources: We want an analysis of the impact of the scenario in which wells have been put on hold and the operator cannot close the wells for lack of funds. We have no choice. The wells must be closed properly. Fields must be restored to functioning ecosystems to help mitigate climate change impacts. We need insurance as well as bigger bonds.

10. Traffic and Transportation: Tailpipe emissions is an extremely significant environmental impact. The mitigation aimed for in the CTM-C: Vehicle Miles Traveled (VMT) Reduction Program needs assurances of effectiveness via a clear description of what "conditions warrant providing additional mitigations and programs"? This is far too vague to be a mitigation for this significant impact. We have no alternative but to reliably cut GHGs in the transportation sector.

11. Utilities: Failure to develop wholesale and commercial scale renewable energy generation and microgrids is a significant environmental impact because it has forced us to have to get our electricity from fossil fuels via transmission lines that spark wildfires. Community microgrids are a feasible mitigation.

12. Waste Management: Failure to properly manage waste has a highly significant environmental impact, especially when it produces methane super-emitter landfills that is driving climate change, but also the failure to reuse and recycle consumer goods and the materials and equipment discarded by commercial enterprises. We need a more comprehensive approach for mitigation of these impacts.

C. The following policy recommendations for the Draft Plan could help the Plan achieve the GHG reduction goals to mitigate climate change impacts and help the EIR be more relevant to the climate crisis.

Land Use and Community Character: We endorse the comments submitted by Bruce Smith to more firmly assure preservation of agricultural land and open space. We point out the lack of analysis of Environmental Justice policy issues.

Circulation, Transportation, and Mobility:

1. No overriding considerations should allow a project to NOT reduce VMT unless all of the vehicles have zero emissions that will use the proposed project.
2. CTM 3-9 to widen SR 118 has a significant environmental impact.
3. Benchmarks to reduce VMT need to be more clear and the plan needs a review with public input every two years until 2028 and then no longer than every five years.
4. Parking programs should be included in ways that reduce single-occupancy car trips.

Public Facilities, Services, and Infrastructure:

1. Enroll residents in a program to reduce CO2 emissions in their neighborhoods. Ex: Cool Block or Transition Streets.
2. PFS 2.1 must be revised to say include rather than encourage 'Sustainable Plans and Operations' in order to be considered a mitigation of climate change impacts from greenhouse gas emissions.
3. Policy PFS 7.1 should be revised to delete the need for access to gas. The environmental impact from use of natural gas requires carbonizing buildings beginning with no gas connections to new residences . It is therefore contradictory to ensure access to gas.
4. Local renewable energy generation must be part of the mitigation plan for reducing transmission facility fire hazard risk. This is not the same as "Smart Grid Technology". You need experts who know the cutting edge of this field to help write coherent policy on this topic.
5. Zero Waste The County shall achieve zero waste (via a suite of policies to reduce, reuse, and recycle) with no organic waste going to landfills by 2023
6. Zero Waste Policy for Meetings and Events Design and implement a zero waste policy for meetings and events sponsored or permitted by the County to minimize waste and rescue surplus edible food
7. Compostable Take-Out Foodware Require that take-out foodware be made with material compostable in solid waste processing facilities within 60 days
8. Reduce Solid Waste by Phasing Out Single-Use Plastic Evaluate how to best reduce solid waste generation per capita by at least 15% by 2030 including phasing out single-use plastics including but not limited to plastic straws, plastic utensils, plastic take-out containers, and expanded polystyrene
9. Ban Expanded Polystyrene

Conservation and Open Space:

1. Reduce oil and gas production by 40% by 2025 via higher monitoring standards and 2500 ft buffer zones near sensitive sites; reduce production to zero by no later than 2040.
2. Phase-Out of Oil and Gas Production The County shall prohibit new drilling and shall regulate existing wells to assure steady closing of wells beginning near residential and commercial areas.
3. Maintain Policy COS-7.8 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to collect gases and use or remove

them for sale or proper disposal instead of flaring or venting. Flaring should be allowed only in cases of emergency or for testing purposes.

4. Maintain Policy COS-7.7 as recommended by the Board of Supervisors, so that all newly permitted discretionary oil wells are required to convey oil and produced water via pipelines instead of trucking.

5. Detect and curb methane emissions from “super-emitter” sites as identified by NASA.

6. Tax oil and gas production, and related uncaptured methane to raise the needed revenues to fund urgent climate programs to replace high-emission vehicles with a priority on trucking and freight companies, fishing businesses, general contractors and K-12 schools.

7. Require a fully accountable performance bond for all new wells to cover cost of closure Cite LAT article (maybe put on website and link to it).

8. Establish an insurance fund that oil and gas producers contribute to that will cover accidents and closing wells if the producer goes bankrupt.

9. Ban gas-fueled lawn and garden equipment. (Ex: City of Ojai)

10. Accelerate capture of legacy HFCs Enlist the public and private to find and destroy existing stocks of HFC’s (refrigerant gases with extremely high Global Warming Potential).

11. Develop and adopt building codes based on best practices for use of low embodied carbon concrete and set targets for use of low GHG concrete alternatives. Ex: Bay Area Air Quality Management District and King Co, WA.

12. Encourage climate-safe and climate-resilient development through zoning reform and removal of limits on height, density, and minimum parking requirements to enable and promote walkability and a mix of uses for homes and businesses, parks and transit.

13. Create a master local clean energy siting and funding plan for wholesale distributed solar energy plus storage in commercial scale projects producing energy needs by 2030.

14. Provide energy efficiency benchmarking and rebates for low-income housing and renters as well as low-interest loans for small businesses to reduce energy use; assist owners of existing buildings to switch from natural gas to electricity.

15. Prepare sustainable building, siting, landscaping and passive heating and cooling practice guidelines, with a priority on low-income housing, that reduce consumption of non-renewable resources and that include climate and fire-safety in pre-approved plans.

16. Energy Efficiency to Reduce Electricity Use Use Energy Efficiency to Deliver 15% of Projected Needs for electricity in the county by 2023; and 30% by 2030.

17. Efficiency Building Standards for Retrofits Prioritize energy and water efficiency building standards and work to retrofit existing buildings.

18. Decarbonize County Buildings Develop a county building electrification plan eliminating natural gas use in County-owned facilities.

19. Decarbonize All Building Types Develop an electrification plan with goals for GHG emission reductions through renewable energy that evaluates and prioritizes programs for local solar, energy storage and demand response (DR) that disconnects all buildings from gas service by 2050. Include incentives for deep retrofits of inefficient buildings.

Agriculture:

1. Integrated Pest Management where toxic pesticides are a last resort. Create a program that promotes the principles (systems approach, building trust, and effective communication) and pursues the recommendations of the Roadmap for Integrated Pest Management from the University of California and CA Department of Pesticide Regulation. Environmental impacts from toxic pesticides are not described in the Background Report. The Roadmap to an Organic California Policy Report by CCOF Foundation offers information for mitigations and climate action. A workshop is needed.
2. Inorganic Nitrogen Based Fertilizers Set benchmarks for reducing use of inorganic N fertilizer and encourage optimized use of organic and inorganic fertilizer for greatest efficiency in closed nutrient cycles, monitor for nutrient runoff from fields and encourage the use of cover crops and green manure crops to reduce or avoid nitrous oxide (N₂O) emissions and nutrient runoff.
3. Diversified Cropping Systems Encourage farmers to include 1 – 5% of beneficial insect attracting plants in a planted crop, and other methods, such as crop rotation, perennial mowed cover crop in orchards, and integrating multiple species or varieties to enhance the biological and economic stability by spreading economic risk and buffering against pest invasions and extreme weather events, and increase carbon sequestration.
4. Reward Regenerative Farmers with Digestate and Compost from Food Waste Research feasibility of a program for composting food waste for use by farmers and landscapers who use regenerative practices that sequester certified amounts of CO₂.

Water Resources:

1. At least 30,000 acre-feet per year must come from storm water capture by 2035
2. All rainfall must be retained onsite in soil and reservoirs.
3. Slow It. Spread It. Sink It! The County shall enforce Best Management Practices (BMP) and Low Impact Development (LID) for new developments.
4. Recycle all wastewater for beneficial reuse by 2035.
5. Reduce potable water use per capita by 22% by 2025 and 25% by 2035: Offer incentives for water conservation features, including drought tolerant landscaping, permeable materials in standard parkway design guidelines, street trees, infiltration, greywater, and water-saving plumbing.
6. Close oil and gas wells and injection wells near aquifers as a top priority.
7. Create a Master Plan to develop the full potential of integrated water management to infiltrate the ground and recharge aquifers; support reforestation and restoration of watershed ecosystems; conserve and protect groundwater resources, and clean up creeks, streams, and estuaries.
8. Support Santa Clara River Loop Trail and Ventura River Trail Development

Economic Vitality:

1. Agricultural Diversification should include reference to regenerative practices to create biodiversity with opportunities for community members to visit farms.
2. Small Business Promotion. Support approval of caretaker residential space on business property to reduce VMT and more financial strength for small businesses.
3. Green Economy. Prioritize youth and immigrants for workforce development in

industries that promote and enhance environmental sustainability, including GHG reductions, climate adaptation, resiliency and local renewable energy generation, storage and distribution, including solar power, wind power, wave energy, regenerative organic farming and value-added agriculture-related activities, and other appropriate renewable sources.

4. Maritime Economy. Facilitate a sustainable maritime economy using restorative aquaculture techniques that restore ocean health and biodiversity while reviving pre-human fisheries abundance. For example, restore sand-bottom kelp forests and increase kelp forests with flexible floating fishing reefs where the seafloor is otherwise too deep for kelp.

5. Promote Fire-Resistant Infill and Revitalization. Encourage infill development that serves as firebreak rather than as additional fuel for wildfires.

6. Create a Collaborative Structure for Innovation for a Resilient Future. The structure should be able to make decisions and create a way forward for zoning, building and materials and environmental health to allow options for a resilient future, include government officials, innovators and public as described in submissions from Sustainable Living Research Initiative.

7. Parking Infrastructure. Develop parking policies to reduce single occupancy trips associated with employees and business activity to reduce Vehicle Miles Traveled.

8. Master Plan for Distributed Energy Resources and Community Microgrids. Prepare a map of siting options for renewable energy generation and storage facilities and coordinate the identification of financing options for renewable energy resource development, including solar, wind, wave, storage and community microgrids both in front of and behind the meter.

In summary, with the accelerating tipping points, we cannot go half-way in our vision. We need extraordinary courage to set goals we can hang our hopes and efforts on. We want completeness and clarity so we can see how the emissions reduction plan adds up. We want respect for climate science to tell us the truth. We want more ambition. A 2016 decision of the state legislature in SB32 is just not good enough as a goal. We want to see a systematic plan that will assure carbon neutrality no later than 2045.

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 3:53 PM
To: Simmons, Carrie
Subject: FW: General Update Comment Letter from ACCT
Attachments: ACCT Letter to VC County (1).pdf

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Maverick Media <maverickmedia@hotmail.com>
Sent: Thursday, February 27, 2020 3:50 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: ramirezmcarr@gmail.com; Steve.Bennet@ventura.org
Subject: General Update Comment Letter from ACCT

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Ms. Curtis,

Please find the attached General Update Comment Letter that is attached. I have also included it in the body of this email.

Thank you,

Carin Wofford

Action for Change in Changing Times

(ACCT)

Cindy Piester

177 Jordan Ave.

Ventura, CA. 93001

February 27, 2020

To: Susan Curtis, General Plan Update Manager

via email (susan.curtis@ventura.org)

RE: Action for Change in Changing Times Comment Letter on the *Draft Environmental Impact Report (EIR) for the County of Ventura Draft 2040 General Plan*

Dear Ms. Curtis,

Action for Change in Changing Times (ACCT) has reviewed portions of the draft EIR and have serious concerns with what we see as a lack of completeness, an entirely inadequate Climate Action Plan, and *a failure to recognize the role of the County in the production of oil and gas*. Lacking and needed are policies and environmental mitigations that ensure we do our share of addressing the climate crisis. On these issues the draft General Plan and the draft EIR, unfortunately, fail.

When this process started in 2015, Ventura County did not realize that we are on the front lines of the Climate Crisis. The current 2.6 degree Celsius rise above pre-industrial levels, major wildfires, droughts and analysis of climate impacts on our County demonstrate that a significant, if not the most significant, land use issue facing this county over the next 20 years is the climate crisis and how we respond through the planning process.

We could not find a clear indication in either of these documents of the total greenhouse gas (GHG) potential produced annually in the county. In fact, the role of the industry in this county appears to be missing in the documents. On an annual basis what is the BTU value of the liquid and gas products extracted by our oil & gas industry? What is the GHG emission from the ultimate production and use of those fossil fuels?

On a planetary scale we need to plan now for the systematic and rapid phase out of oil and gas extraction and shift rapidly to development and use of cleaner renewable fuels -- on that the planet depends.

We cannot find a schedule within the county documents for the systematic and cost-effective winding down of this industry along with a just transition for our workers in the oil field, many of whom will be employed throughout the closing out of production and restoration of land. Others have skills that are directly transferable to clean industries of commercial and residential solar and wind energy.

In summary, ACCT finds the current county drafts unacceptable for planning over the next twenty years with too many unanswered issues in the draft EIR.

We, the undersigned residents of Ventura County, respectfully call for the above concerns to be fully addressed.

Cindy Piester

Carin Wofford

Jabbar Wofford

Leslie Purcell

Margo Davis

Gail Hodgson

Alan Hodgson

Carol Vasecky

Alex Uvari

Marisa Sanchez

Arturo Guido

Frank Bognar

Geoffrey Dann

Wendy Lofland

Roslyn Jean Scheuerman

Paul Benevidez

Nissa Benevidez

Ivsar Marina

Andrew Steel

Nancy Genevieve Oatway

Nicholas Oatway

Rev. Dr. Audrey Wise Vincent

Martin Jones

Susan Shamroy

Margaret Wilson

Nikki G. Alexander

Edward G. Alexander

Dianne Kenny

Judith Cuevas

Ray Cuevas

Gillian Dale

Nancy Shuman

Mark Shuman

Amelia Aparicio

Jeremy Kersch

Debra Myrent

Nick Corrett

Janet Murphy

Heidi Rosenfield

Sheila Williams

Lucy Duffy

Frank Peterson

Heidi Whelan

Sandy Beckner

Laura Schneider

Betsy Shipley

Gerald Schwanke

Angela Grismer

Julie Shaw

Diana Cooley

Pam Holley-Wilcox

Karen Trowbridge

Beverly Brovsky

Arnett Smithson

Action for Change in Changing Times
(ACCT)
Cindy Piester
177 Jordan Ave.
Ventura, CA. 93001
February 27, 2020

To: Susan Curtis, General Plan Update Manager
via email (susan.curtis@ventura.org)

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Ivsar Marina
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Martin Jones
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Edward G. Alexander
Dianne Kenny
Judith Cuevas
Ray Cuevas
Gillian Dale
Nancy Shuman
Mark Shuman
Amelia Aparicio
Jeremy Kersch
Debra Myrent
Nick Corrett
Janet Murphy
Heidi Rosenfield
Sheila Williams
Lucy Duffy
Frank Peterson
Heidi Whelan
Sandy Beckner
Laura Schneider
Betsy Shipley
Gerald Schwanke
Angela Grismer
Julie Shaw
Diana Cooley
Pam Holley-Wilcox
Karen Trowbridge
Beverly Brovsky
Arnett Smithson

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 4:20 PM
To: Simmons, Carrie
Subject: FW: Climate change has environmental impacts!

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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Ventura County General Plan Update. Join the conversation at VC2040.org
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From: Kari Aist <info@email.actionnetwork.org>
Sent: Thursday, February 27, 2020 4:20 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a systematic plan.

Thank you for listening to the people and doing what's right for the health of your constituents, the ones you represent.

Remember this: we ALL live downstream.

Thank you—

Kari Aist

Mom4mykids@gmail.com

8892 Tacoma St

Ventura, California 93004

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 4:26 PM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Comments

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Lizzy Martinez <emchambers@aol.com>
Sent: Thursday, February 27, 2020 4:20 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: General Plan Update <GeneralPlanUpdate@ventura.org>
Subject: 2040 General Plan Comments

Sanger Hedrick, Chair

Agricultural Policy Advisory Committee (APAC) County of Ventura
[800 S. Victoria Blvd.](#)
[Ventura, CA 93003](#)

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA)

requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time, ” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

February 19, 2020

[Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org](#)

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County’s Zoning Ordinance and the County’s minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an “Agricultural Mitigation Measure” through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed

mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...Therefore, the potential for conflicts would be minimal. This impact would be less than significant" (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

[Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org](http://www.colabvc.org)

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as "programmatic" or "project", must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable

that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion.

But the County fails to analyze or propose mitigation measures to address this significant impact.

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Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory

demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

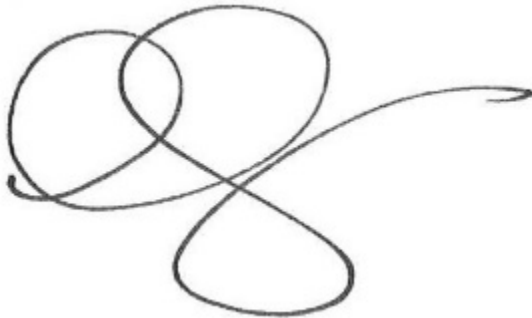
CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal tail extending to the right.

In support of this letter-
Elizabeth Chambers Martinez

Sent from my iPhone

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 7:57 AM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: John Chambers <jechambers330@gmail.com>
Sent: Thursday, February 27, 2020 6:35 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

Dear Ms. Curtis:

-

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

-

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

-

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part

of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

-

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

-

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

-

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

-

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

-

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

-

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

-

I would also like to raise some additional concerns:

-

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.

-

2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.

-

3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."

-

4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.

-

5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

-

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

-

Sincerely,

John Chambers

--

John Chambers

Simmons, Carrie

From: Suzanne Kelly <suzanne.bcos@gmail.com>
Sent: Thursday, February 27, 2020 2:42 PM
To: General Plan Update; Curtis, Susan
Cc: Borchard, John
Subject: Comments on DEIR re: VC 2040 General Plan
Attachments: Letter to Board of Supervisors 2-27-20.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Please find the attached letter urging the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR.

Suzanne Borchard Kelly
BORCHARD COMPANIES, INC.
2112 Eastman Avenue, Suite 103
Ventura, CA 93003
805-639-0998

Farm and Investment Operations of

John W. Borchard Trusts
John W. Borchard, Jr.
J. David Borchard
Patricia Borchard Trusts
Cecilia Borchard Trusts
Ernest Borchard Ranch Co., LLC
Knittles Ranch Co.
Greenhills Ranch Co.
John W. Borchard Ranches, Inc.



Suzanne Borchard Kelly
President
2112 Eastman Ave., Suite 103
Ventura, CA 93003
(805) 639-0998
Fax (805) 639-0898

John W. Borchard, Jr.
Chief Financial Officer
805-386-5716

J. David Borchard
Farm Manager
(805) 444-3283

February 27, 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners was that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economically feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires that all farm equipment be converted to electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

After devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Furthermore, for the good of the County, its employees, and its citizens should not the implications to land values, therefore assessed values, therefore property tax collections be considered an unmitigated impact? I would think that Ventura County is a wonderful example of government for the people, all of its people, taxpayers and beneficiaries of government services alike. I would also think that it is irresponsible for the Board of Supervisors to ignore this impact. I have not seen an analysis of economic impacts in the body of the proposed 2040 General Plan DEIR. I think this is a serious omission.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely,

John W. Borchard, Jr.
Chief Financial Officer
Borchard Companies, Inc.

Gabriel R. Duarte
4014 Brindisi Place
Moorpark, CA 93021

February 27, 2020

Ventura County Board of Supervisors
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

I'm writing to you as a concerned resident of the County regarding the viability of the oil and gas industry in Ventura County.

The 2040 General Plan Draft EIR fails to give proper analysis to oil and gas mineral resources.

Neither the EIR nor the Background report provide a complete and thorough description of the existing, current regulatory setting that oversees the management and production of mineral resources in the County and the State of California. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

The EIR fails to actually analyze for direct and indirect impacts to mineral resource zones that will occur as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses OVER known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. These incompatible land uses will significantly impact future mineral resource production and must be evaluated and mitigated for in the EIR.

The EIR never addresses indirect impacts to mineral resource development that will occur under the 2040 General Plan. As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to produce mineral resources in the County.

The Draft EIR is lacks critical analysis and must be corrected and recirculated to ensure a fair process for Ventura County residents.

Thank you,



Simmons, Carrie

From: Bell, Korinne
Sent: Thursday, February 27, 2020 3:43 PM
To: General Plan Update; Curtis, Susan
Cc: Williams, Ed; Schilder, Annemiek M.; Sanger Hedrick; Scott Deardorff; gordon@kimballengineering.com; patty.waters@aol.com; Bobby Jones; Thille, Alec
Subject: APAC Response Letter Re Draft EIR
Attachments: 3146_001.pdf; CoLAB Comments to APAC GPU EIR 2_19_2020.pdf

Good afternoon,

Please accept the Response Letter to the Draft EIR for the Ventura County General Plan Update, and accompanying Comment Letter from VC CoLAB, sent on behalf of the Agricultural Policy Advisory Committee (APAC).

Thank you,

Korinne Bell
Chief Deputy Agricultural Commissioner

VENTURA COUNTY

Agricultural Policy Advisory Committee

Sanger Hedrick, Chair, District 2; Scott Deardorff, District 1; Gordon Kimball, District 3;
Patty Waters, District 4; Bobby Jones, District 5

February 27, 2020

RMA Planning Division, General Plan Update
800 S. Victoria Ave, L#1740
Ventura, CA 93009-1740

RE: APAC Comments Regarding the VC 2040 General Plan EIR

The Ventura County Agricultural Policy Advisory Committee (APAC), so states that, after a unanimous vote of the quorum present at the 19 February 2020 APAC meeting, finds flaws with the Ventura County 2040 General Plan EIR. As such, the APAC requests an extension to the comment period and submits the following comments regarding the EIR and the Draft General Plan:

First and foremost, the mitigating measures proposed in the EIR have not been sufficiently evaluated for efficacy or feasibility. For example, Mitigating Measure AG-1 has previously been rejected by LAFCo as infeasible due to the high cost associated with purchasing conservation easements. Additionally, the APAC strongly believes that Mitigation Measure AG-1 would lead to vacant land, as the General Plan does not include policies or programs that would increase the long-term viability of agriculture in Ventura County and the Mitigating Measure places land into conservation easements in effective perpetuity. Some ways to improve the mitigation of the impact would include:

- Creation of a Conservation Easement Bank for agricultural conservation easements to facilitate both the full-value sale of and ease of purchase of said easements
- The allowance of conservation easements to be sold on portions of a parcel or for legal-nonconforming parcels to be formed as part of the sale
- Policies or programs that would reduce anti-agricultural pressures on lands within conservation easements, such as improved water access/rights, exemptions for agricultural operations from overlay and corridor requirements, and/or an improved and codified Ag/Urban Buffer Policy

AGRICULTURAL POLICY ADVISORY COMMITTEE (APAC)
Advisory Letter to the VC BOS

Furthermore, Impact 4.2-2 is found to be "Less than Significant" with no need for additional mitigating measures solely on the basis of existing policy, ordinances, etc without an evaluation of the effectiveness of those policies at reducing impact under the existing General Plan. As recently demonstrated by Board action in enacting Ventura County Urgency Ordinance No. 4558, at least one of the cited protections does not provide the protection assumed in the General Plan and EIR, and as such should not be considered so strongly in mitigating the Impacts of allowing development near agricultural operations and soils.

Further support for the assertions made here is included with this letter is the letter to APAC by Ventura County CoLAB. The letter provides further detail on the omissions and failures of the EIR, as well as some suggestions for improvement.

Agriculture is unique, as an industry it is the only one so specifically regulated by the General Plan. It is also a primary part of Ventura County historically, economically, aesthetically, culturally, and in many other ways. The EIR fails to identify impacts of the General Plan to agriculture in the county, impacts that would allow the continued reduction in agricultural lands and agricultural viability. For agriculture to be a part of Ventura County's future, please take these observations and recommendations into careful consideration when revising both the EIR and General Plan itself.



Sanger Hedrick, Chair



Scott Deardorff, District 2



Gordon Kimball, District 3



Patty Waters, District 4

Bobby Jones, District 5



February 19, 2020

Ventura County CoLAB
Board of Directors & Officers

John Hecht, Sespe Consulting
Chairman

Mark Mooring, Buon Gusto Farms
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Director

Tony Skinner, IBEW Local 952
Director

Alex Teague, Limoneira
Director

Andy Waters, Waters Family Farms
Director

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC)
County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as "capable of being accomplished in a successful manner within a reasonable period of time, **taking into account economic, environmental, social, and technological factors**" (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

- 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
- 2) The cost per acre to purchase each category of farmland;
- 3) The anticipated cost of establishing a conservation easement for each category of farmland;
- 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
- 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
- 6) Any information that could constitute a "plan" for management of farmland in conservation easements;

- 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
- 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
- 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County's Zoning Ordinance and the County's minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an "Agricultural Mitigation Measure" through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...**Therefore, the potential for conflicts would be minimal. This impact would be less than significant**" (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

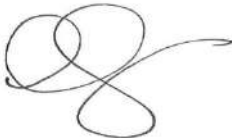
APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

- 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
- 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
- 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

Louise Lampara
Executive Director

Simmons, Carrie

From: David Armstrong <david@smithhobson.com>
Sent: Thursday, February 27, 2020 3:45 PM
To: General Plan Update
Subject: General Plan DEIR Comment Letter
Attachments: GPDEIR Comment Ltr 2020.pdf

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan,

Please see attached comment letter on the DEIR for the General Plan Update.

David S. Armstrong | CEO



Smith-Hobson, LLC

63 North Ash Street
Ventura, CA 93001
T: 805.648.3363
C: 310.600.6682

February 27, 2020

Susan Curtis, Manager
General Plan Update Section
Ventura County Planning Division
800 S. Victoria Ave
Ventura, CA 93009

VIA Email: GeneralPlanUpdate@ventura.org

Dear Ms. Curtis,

The Ventura County General Plan Update Draft Environmental Impact Report (DEIR) fails to adequately address the impacts associated with the policies proposed by the draft General Plan. Specifically, this letter comments on DEIR Section 4.2 – Agriculture and Forestry Resources.

Section 15168 (b)(2) of the California Resources Code identifies one of the advantages of a Program EIR as ensuring “consideration of cumulative impacts that might be slighted in a case-by-case analysis.” The DEIR further clarifies: “The impact analysis provided in this section addresses the physical changes to the existing environment that could occur as a result of 2040 General Plan implementation.”

The methodology of the analysis (Section 4.2.2) addresses only future development and land-use conflicts. Implementation of the General Plan is much more complex. This approach treats agricultural resources as just another land use designation while ignoring the viability of what CEQA determined to be a critical and valuable part of our environment.

There are numerous deficiencies but for brevity I will review the first two scoring factors in the California LESA model: water availability and project size. Both are critical to the viability of sustainable agricultural production but the impacts of the proposed General Plan policies and DEIR mitigations are not properly analyzed or evaluated. The proposed policies and mitigations could result in the conversion of Farmland to non-agricultural uses or create physical changes that are not analyzed or meaningfully mitigated under the DEIR.

Water Availability. The DEIR passingly references the importance of water to agricultural sustainability but fails to quantify existing conditions or anticipated changes in availability for agricultural uses. The Background Report and Section 4-10 identify groundwater basins in overdraft including the Oxnard Plain Basin that provides more than half of all agricultural irrigation water in the county. The proposed GSP for the Oxnard Basin will require significant reductions in agricultural groundwater extraction over the next 20 years - possibly up to 50%. The head of the Fox Canyon GMA is advocating for the full reductions immediately.

It is not possible to irrigate the same amount of land with half the water. The reductions in available water for irrigation and increased costs will necessarily lead to the fallowing of thousands of acres of agricultural land during the General Plan’s 20-year time horizon.

Unplanted areas will be subject to increased erosion from wind and water forces. The proposed General Plan policies will play a significant role in the conversion of current Farmland to non-agricultural uses.

The proposed mitigations of permanently restricting agricultural lands on a 2:1 basis is well established to be infeasible (see LAFCo analysis). Without water, the designated land could not be used for agricultural production. There is no analysis of any of the impacts from significant water supply reductions and the DEIR is inadequate.

Project Size. According to the DEIR, the county contains prime agricultural lands that "...are capable of supporting commercially viable agricultural operations on minimum 9-acre parcels. According to the most recent data from the USDA (2017), the majority of farms in the county are less than 50 acres and approximately half of the farms are less than 10 acres."

Despite this data, the General Plan sets a minimum lot size for Agriculture that is at least four times larger than half of the existing farms:

Policy LU-8.3: Minimal Parcel Size for the Agricultural Land Use Designation. The County shall ensure that the smallest minimum parcel size consistent with the Agricultural land use designation is 40 acres. The County may require larger minimum parcel sizes based on the zone classification.

For farms located in an Open Space land-use designation, the minimum lot size is 10 acres. These policies may make more than half of all farms nonconforming with the underlying General Plan. The probability that a nonconforming farm lot was created legally is extremely low. Over the extended life of the plan, the impacts on agricultural resources are potentially profound.

LU 4-4 and Sec. 8113-8 of the Non-Coastal Zoning Ordinance, for example, prohibit the allowed uses on a nonconforming lot unless it is a legal lot. No building permits may be issued on an illegal lot. To correct most illegal lots requires a Conditional Certificate of Compliance and the conditions are not required to be feasible. Generally, consistency with the General Plan requires that the lot conform to the established minimum lot size. By setting the minimum lot size larger than most of the existing farms, the General Plan will require that illegal lot owners purchase adjacent land. If that land is not available or too expensive, the county may shut down the existing agricultural use and/or deny any new permits.

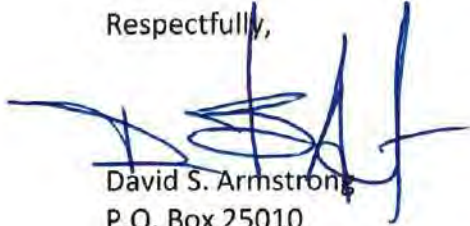
The General Plan sets minimum lot sizes larger than more than half of the County's farms and larger than what the County determined was necessary for commercial viability. There is no analysis of how many farms may be impacted by these policies or how they could result in the conversion to non-agricultural uses.

The conversion to non-agricultural uses under CEQA is not predicated on establishing an alternative land use designation. Any use or having no use that results in stopping the

production of agriculture constitutes a conversion. The DEIR fails evaluate all potential impacts and must be rewritten and subsequently recirculated for review.

Thank you in advance for your consideration.

Respectfully,

A handwritten signature in blue ink, appearing to read 'D. S. Armstrong', is written over a horizontal line. The signature is stylized and somewhat illegible.

David S. Armstrong
P.O. Box 25010
Ventura, CA 93002

Simmons, Carrie

From: Figueroa, Isidro <isidro.figueroa@oxnard.org>
Sent: Thursday, February 27, 2020 4:39 PM
To: General Plan Update
Cc: Lambert, Jeffrey; Scott Kolwitz; Curtis, Susan
Subject: City of Oxnard_Comment Letter_2040 General Plan DEIR_County of Ventura
Attachments: City of Oxnard_Comment Letter_2040 General Plan DEIR_County of Ventura_02.27.20.pdf

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Please accept the City of Oxnard's comment letter on the County of Ventura's 2040 General Plan DEIR.

Regards,

-Isidro

--

Isidro Figueroa
Principal Planner
805-385-8207

Please visit us online: oxnard.org/planning

For Answers to Frequently Asked Questions visit our [FAQ](#) page

Jeffrey Lambert
Community Development Director
Community Development Department
214 South C Street
Oxnard, CA 93030
(805) 385-7882
jeffrey.lambert@oxnard.org



February 27, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

RE: City of Oxnard Comments on Analysis of Environmental Impacts for Draft 2040 General Plan

The City of Oxnard (City) has received and reviewed the Draft Environmental Impact Report (DEIR) for the proposed County of Ventura (County) 2040 General Plan comprehensive update. The 2040 General Plan proposes to set forth the County's vision of its future and identify the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including but not limited to land use, climate change, agriculture, transportation, hazards, public facilities, health and safety, environmental justice, and resource conservation out to the year 2040.

The City appreciates the opportunity to provide comments on the 2040 General Plan DEIR. The City is also appreciative of the ongoing working relationship and cooperation between the City and the County. The City looks forward to participating in the County's 2040 General Plan update process.

City of Oxnard DEIR Comments

City comments follow DEIR Sections as follows:

2.1 –Introduction

2.2.5- Structure and Content of the General Plan: Land Use Diagram

"Two changes are also proposed for lands within or adjacent to the incorporated cities in the county. As the County does not have land use authority over lands within the cities, these areas are noted as "City" on the 2040 General Plan Land Use Diagram and not given a land

use designation. The final land use designation change is the proposed removal of the Urban Reserve Overlay. This overlay is replaced by a policy that references the use of adopted spheres of influence to provide the same geographic boundary."

The City appreciates the County's efforts to clarify the relationship regarding land use authority between the County and surrounding cities by designating lands within the jurisdictional boundaries of surrounding cities as "City" in the Land Use Diagram. The new designation of "City" and the absence of a land use designation will clearly alert the general public that all lands with the designation are located within a city and that the general public should seek assistance from that appropriate city regarding all land use inquiries. Additionally, the City appreciates the County clearly stating that the County does not have land use authority over lands within the cities. The aforementioned statement will alleviate confusion to the general public about who is responsible for making land use decisions and will assist cooperation between surrounding cities and the County.

4.2 Agriculture

4.2.2 Environmental Impacts and Mitigation Measures

Mitigation Measures

Mitigation Measure AG-1: New Policy AG-X Avoid Development on Agricultural Land

The County shall include the following new policy in the 2040 General Plan.

Policy AG-X Avoid Development on Agricultural Land

"The County shall ensure that discretionary development located on land identified as Important Farmland on the State's Important Farmland Inventory shall be conditioned to avoid direct loss of Important Farmland as much as feasibly possible."

Mitigation Measure AG-2: New Implementation Program AG-X: Establish an Agricultural Conservation Easement

"The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program AG-X: Establish an Agricultural Conservation Easement

Applicants for discretionary projects that would result in direct or indirect loss of Important Farmland in exceedance of the acreage loss thresholds listed in the table below shall ensure the permanent protection of offsite farmland of equal quality at a 2:1 ratio (acres preserved: acres converted) through the establishment of an offsite agricultural conservation easement."

The City, California State Coastal Conservancy (CSCC) and The Nature Conservancy (TNC) (Project Partners) are currently undertaking the Ormond Beach Restoration and Access Plan (OBRAP). The OBRAP area encompasses approximately 630 acres that are entirely within the

City of Oxnard, as is a significant portion of the broader Ormond Beach area. Property outside the OBRAP, in the Eastern Ormond Beach area between Edison Drive and Arnold Road, is within the County. The County also maintains a portion of Arnold Road. The Ventura County Watershed Protection District manages Tsumas Creek, the Ormond Lagoon Waterway, and the Hueneme Drain, including a flood control easement along the Ormond Lagoon Waterway. These waterways traverse lands owned by TNC and the City within the OBRAP area. The OBRAP area and the broader Ormond Beach area also straddle both the County non-coastal and Coastal Zones.

Ormond Beach is considered by wetland experts to be one of the most important wetland restoration opportunities in southern California. Unlike other coastal wetland restoration projects in southern California, there is room to restore the approximate extent of historic wetlands, provide surrounding upland habitat to complete the ecosystem and accommodate sea level rise. When combined with the adjacent Mugu wetlands, it will be one of the largest wetland systems in Southern California. Currently public access is limited. This plan will create restoration alternatives and enhance public enjoyment of Ormond Beach. The Project Partners recently held a public workshop in August of 2019 to present the draft OBRAP to the community and stakeholders. A number of County department representatives participated in the public workshop and provided valuable comments. The Partners greatly appreciate the ongoing participation and assistance of the County during the development of the OBRAP.

Expansion of the project area may occur in the future as a result of new land acquisitions. The OBRAP has identified a few potential land acquisitions opportunities, some of which are located within the County boundaries. Based on Mitigation Measures AG-1 and AG-2, it would potentially require the Project Partners to provide permanent protection of offsite farmland of equal quality at a 2:1 ratio (acres preserved: acres converted) through the establishment of an offsite agricultural conservation easement. The City believes that the policy should be amended to exempt restoration and similar plans from this requirement. The City believes that restoration plans like the OBRAP that are intended to provide regional open space and coastal access opportunities for the general public, protection and further enhancement of vital ecosystems and protection from sea level rise should not be considered “discretionary development” (i.e. hardscape development) and required to provide permanent protection of offsite farmland of equal quality at a 2:1 ratio (acres preserved: acres converted) through the establishment of an offsite agricultural conservation easement.

4.6 Energy

The Energy chapter within the DEIR fails to establish a specific reduction target but references reduction mandates commensurate with State standards. By inference, reduction targets are stated as being able to be met. The analysis does not quantify how the reduction targets will be

met with the added housing units to be constructed over the life of the 2040 General Plan, inclusive of the Housing Element. Additionally, Chapter B (Climate Change) of the DEIR identifies reduction targets (see page B-13). The City recommends that these targets be quantified in the Energy section to demonstrate how reductions will be met and that the GHG citation and evaluation criteria for inventory (ICLEI 2013) be referenced in this section.

4.8 Green Gas Emissions

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.8-2: Conflict with an Applicable Plan, Policy, or Regulation for the Purpose of Reducing the Emissions of GHGs

Impact 4.8-2 (page 4.8-50) states, “the County cannot meaningfully quantify the effect of all its 2040 General Plan policies and programs on future GHG emissions, and there, it cannot conclude, at this program level of analysis, that future GHG emissions in the county under the 2040 General Plan would be sufficiently reduced to meet the State’s 2030 or post-2030 targets.” The City recommends that policies and implementation measures be prioritized with measures to achieve greater reductions identified. Prioritization will also assist the County when budgeting and evaluating competing priorities. This could also be replicated in Appendix B.

4.11 Land Use Planning

Section 4.11.2 – Environmental Impacts and Mitigation Measures

2040 General Plan Policies and Implementation Programs

Agriculture Element

Policy PFS-5.2: Land Use Compatibility with Solid Waste Facilities

“The County shall review and condition discretionary development near landfills and other solid waste processing and disposal facilities (including facilities for composting, green waste, food waste) to avoid incompatible development and future nuisance complaints from encroachment by incompatible land uses.”

The City recommends that language be incorporated to Policy PFS-5.2 that would not permit the extension of discretionary permits for existing development near landfills and other solid waste processing and disposal facilities (including facilities for composting, green waste, food waste) adjacent to or near: wetlands; restoration plan areas; and areas that contain environmentally sensitive habitat, including federally and state endangered and listed species. This policy will ensure that such facilities site their operations in the appropriate zoning. The new policy language will assist in the preservation and enhancement of unique environmental settings that are becoming frequently rare in the County and will provide for additional restoration and conservation opportunities throughout the County.

4.12 Mineral

Section 4.12.2 – Environmental Impacts and Mitigation Measures

2040 General Plan Policies and Implementation Programs

Mitigation Measures

Mitigation Measure PR-1: Revised Policy COS-7.2: Oil Well Distance Criteria

The County shall include the following revised policy in the 2040 General Plan.

COS-7.2: Oil Well Distance Criteria

“The County shall require that new discretionary oil and gas wells to be located be sited a minimum of 1,500 feet from the well head to residential dwellings dwelling units and 2,500 from any school sensitive use structures which include dwellings, childcare facilities, hospitals, health clinics, and school property lines.”

The City recommends that revised policy COS-7.2 continue to require that new discretionary oil and gas wells be sited a minimum of 2,500 feet to sensitive use structures which include dwellings, childcare facilities, hospitals, health clinics, and school property lines instead of the proposed 1,500 feet. The DEIR cites the recommendations contained within the Los Angeles County LACDPH, Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County report (February 2018) and the City of Los Angeles Oil and Gas Report (July 2019) as justification for recommending the setback reduction of new discretionary oil and gas wells to sensitive use structures from 1,500 feet to 2,500 feet. However, the DEIR fails to identify how the conditions and infrastructure analyzed in the aforementioned reports relate to the conditions and infrastructure found within the County, and if the reduction in setback is adequate based on the conditions found in the County. The City recommends that the County commission a study that analyzes current oil and gas conditions in the County and how the reduction in setback will impact sensitive use structures.

4.14 Population and Housing

4.14.2 Environmental Impacts and Mitigation Measures

Methodology

Section 4.14.2 of the DEIR states the following: “Affordable housing units are defined as moderate-income in the Coastal Zone and lower-income for the remainder of the plan area. (Lower-income is the term used to collectively refer to low-, very-low, and extremely-low income households.)” Please clarify how allowance of only moderate-income housing units in the Coastal Zone complies with State Housing Law. The allowance would have major implications on how the City and surrounding cities in the County comply with State Housing Law.

4.17 Utilities

4.17.1 Background Report Setting Updates

Environmental Setting

Table 4.17-1 Wastewater Treatment Capacity, Ventura County

| Agency | Total Number of Connections | Rated Capacity (MGD ¹) | ADWF ² (MGD) | Treatment Level |
|---------------------------------------------------|----------------------------------------------|------------------------------------|-------------------------|-------------------------------|
| County Service Area No. 29 | 307 | N/A | 0.085 | Tertiary |
| County Service Area No. 30 | 274 | N/A | 0.2 | Tertiary |
| County Service Area No. 32 | N/A | N/A | N/A | N/A |
| County Service Area No. 34 | 1,364 | N/A | N/A | Tertiary |
| Camarillo Utility Enterprise | 57 | N/A | 0.0356 | Tertiary |
| Todd Road Jail | N/A | 0.08 | 0.044 | Secondary |
| Ventura County Waterworks District No. 1 | 10,000 (37,000 population) | 5 | 2 | Tertiary |
| Ventura County Waterworks District No. 16 | 544 (2,000 population) | 0.5 | N/A | Secondary |
| Camarillo Sanitary District | 70,000 (population, city and unincorporated) | 7.25 | 4 | Tertiary |
| Ojai Valley Sanitary District | 20,000 (customers) | 3 | 1.4 | Tertiary |
| Saticoy Sanitary District | 271 | 0.25 | 0.1 | Secondary |
| Triunfo Sanitation District | 12,300 | 16 | 9 | Tertiary |
| Camrosa Water District | 6,600 | 1.5 | 1.4 | Tertiary |
| Channel Islands Beach Community Services District | 1,800 | N/A | N/A | N/A |
| City of Oxnard | 40,000 | 32.7 | 17 20 | Tertiary Secondary |
| City of Simi Valley | 40,000 (527 unincorporated) | 12.5 | 7.8 | Tertiary |
| City of Thousand Oaks | 130,000 (population) | 14 | 8 | Tertiary |
| City of Ventura | 25,528 | 14 | 7.1 | Tertiary |

Please correct Table 4.17.1 Wastewater Treatment Capacity, Ventura County under agency for the City of Oxnard as follows:

Under the ASWF(MGF) column- please change the number 17 to 20.

Under the Treatment Level column- please change the word Tertiary to Secondary.

Thank you for the opportunity to comment on the DEIR. If you have questions, please feel free to contact me at (805) 385-7882 or e-mail jeffrey.lambert@oxnard.org.

Sincerely,



Jeffrey Lambert, AICP
Community Development Director

Simmons, Carrie

From: Matt Brady <legal@abaenergy.com>
Sent: Thursday, February 27, 2020 4:01 PM
To: General Plan Update
Subject: Comments on Analysis of Environmental Impact Report for Draft 2040 General Plan (State Clearinghouse #2019011026)
Attachments: DEIR 2040 Gen Plan Comment Letter on behalf of ABA Energy Corporation.pdf
Follow Up Flag: Follow up
Flag Status: Completed

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Attn: Susan Curtis, Manager, General Plan Update Section

Please find attached the Comment Letter on behalf of ABA Energy Corporation

Mathew Brady

Mathew M. Brady
Vice President & General Counsel
ABA ENERGY CORPORATION
P.O. Box 80476
Bakersfield CA 93380-0476
(661) 324-7500, Ext 1007; Fax: (661) 324-7568



February 27, 2020

Sent Via Email Only - *GeneralPlanUpdate@ventura.org*

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

RE: Comments on Analysis of Environmental Impact Report for Draft 2040 General Plan
(State Clearinghouse #2019011026)

Dear Ms. Curtis:

This letter provides comments on behalf of ABA Energy Corporation (“ABA”) on the analysis of the environmental impacts provided in the Draft Environment Impact Report for the Draft 2040 General Plan (“DEIR”). In addition to my general comments, I have also included a more specific set of detailed comments referencing specific sections of the DEIR.

For the last ten years my company, ABA, has been actively exploring for and producing oil and gas in the Oxnard Oilfield in Ventura County utilizing traditional recovery methods. We have worked cooperatively with the Ventura County Planning, Building, and Fire Departments, the Ventura County Air Pollution Control District, as well as the state regulatory agencies to conduct our operations for the mutual benefit of the farming families who own the minerals under their farm property and others, including ABA who have a vested interest in the minerals. We have invested tens of millions of dollars in our effort and generated significant tax revenue in the process. It is our intention to continue to conduct these lawful operations and drill additional wells in accord with the existing stringent laws, regulations, and rules that are among the most rigorous in the world. As a mineral resource lessee and a production operator in the County, ABA will be directly and substantially affected by the adequacy of environmental review undertaken in support of the 2040 General Plan as well as implementation of the 2040 General Plan.

The DEIR is deficient in many aspects and we respectfully request that the DEIR be significantly revised and recirculated, as required by the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq) (“CEQA”) and the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15000 et seq.) (“CEQA Guidelines”). Given the DEIR’s failure as an informational disclosure document and its failure to identify and impose all feasible mitigation measures, the DEIR, in its current form, cannot support approval of the County’s proposed update to its current general plan (“2040 General Plan”). The DEIR’s legal deficiencies must be cured and it must be recirculated prior to any approval of the 2040 General Plan.

An EIR must be prepared with a sufficient degree of analysis to provide decision-makers with the information needed to make an intelligent judgment concerning a project's environmental impacts. 14 Cal Code Regs §15151. *Napa Citizens for Honest Gov't v Napa County Bd. of Supervisors* (2001) 91 CA4th 342, 356. An EIR should, when looked at as a whole, provide a reasonable, good faith disclosure and

analysis of the project's environmental impacts. *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1988) 47 C3d 376, 392.

GENERAL COMMENTS

Replacing Locally Produced Oil with Imported Oil Will Increase, Not Reduce, Greenhouse Gases.

The term “Greenwashing” applies to organizations that disseminate disinformation and misleading claims so as to present an environmentally responsible public image when in fact their policies and products have the opposite effect. As a part of California’s push for environmental justice, several companies that have engaged in Greenwashing have even been sued by the Attorney General.¹ The County of Ventura appears to be engaging in Greenwashing by proposing policies that it touts will achieve a decrease in greenhouse gases (“GHG”), by eliminating locally produced, highly regulated, oil and gas production, when in reality these policies will cause an increase in GHG and other pollutants. While the DEIR acknowledges at pages 4.12-21 through 4.12-23 and 4.12-32 that these policies, as proposed, will result in increases in the importation of oil (i.e. more oil trains and oil tankers), there has been no effort to quantify the corresponding increase in GHG and other pollutants that will be the direct result of such policies or their impact on the environment. The abject failure of the DEIR to address the environmentally harmful effects of policies designed to push impacts outside the County Line (as if they will then magically cease to exist) is Greenwashing by any definition.²

In my 37-year career as a petroleum engineer, I have had the opportunity to participate in the exploration and production of oil and gas both domestically in various states and all over the world and as a result, I am familiar with the regulations that have been imposed on oil and gas production by various foreign and state governments as well as other jurisdictions within the State of California. The existing laws, rules and regulations in Ventura County that apply to oil and gas production are among the strictest I have experienced in my career. For example, the Ventura County Air Pollution Control District enforces strict air quality standards and air credit programs that have resulted in dramatically reduced emissions as compared to the emissions from oil and gas production from other states and certainly other countries. In addition, and as noted below in the detailed comments, not all oil is created equal when it comes to Carbon Intensity. The California Air Resources Board (“CARB”) publishes Carbon Intensity values for the various crude oil sources under their Low Carbon Fuel Standard Regulation. The most recent published data is from 2018 which demonstrates that the Carbon Intensity from the oil produced in the Oxnard Oilfield (where all of ABA’s production is located), on an annual average, is less than half the Carbon Intensity of the crude oil used in California as a whole during 2018 (5.39 vs. 12.35 gCO₂e/MJ).³ A quick look at this Carbon Intensity data also reveals that the Carbon Intensity of oil from Alaska was 15.91 gCO₂e/MJ and the Carbon Intensity of the blended average of oil from Saudi Arabia was 8.82 gCO₂e/MJ.

Drop per drop, barrel per barrel, simply replacing locally produced Ventura County oil with imported oil will result in an increase in GHG, and that is true even before considering the huge environmental impacts associated with the GHG and other pollutants generated in the process of shipping that replacement oil across the world (not to mention the increased risks associated with oil spills). Simply put, the DEIR is

¹ <https://oag.ca.gov/environment/greenwashing>

² <https://foe.org/alaskan-arctic-california-crude/>; <https://www.forbes.com/sites/chuckdevore/2019/10/07/californias-next-offshore-oil-spill-will-be-caused-ironically-by-the-states-war-on-oil/#652f8fbb6535>

³ https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/2018_crude_average_ci_value_final.pdf

deficient because it fails to quantify in any meaningful way, using readily available data, the increases in GHG and other pollutants that will be caused if the new policies inhibiting new oil and gas production presently contained in the 2040 General Plan are implemented. The failure of the County to “come clean” by providing a meaningful GHG analysis of its decision to favor imported oil over cleaner, highly regulated, locally produced oil, renders the DEIR inadequate as an informational disclosure document, as a matter of law.

The Proposed 1,500’/2,500’ Setback for New Discretionary Oil and Gas Wells is an Unmitigated Taking that is Not Supported by Substantial Evidence.

Policy COS-7.2 as proposed would require that new discretionary oil and gas wells be located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school. In support of these drastic setback requirements, the County failed to conduct any analytical studies demonstrating why the current setback (500’ and 800’) in combination with routine mitigation requirements (i.e. sound walls during drilling and workover operations) in combination with current air quality restrictions including vapor recovery for all facilities and zero emission tolerances are inadequate. The DEIR acknowledges that the VCAPCD conducts quarterly inspections of oil and gas facilities to enforce the zero emissions policy and it is unclear from any information why such current mitigations are inadequate. The DEIR fails to cite any air monitoring study, any noise study, any vibration detection study, or any odor study conducted in like or similar conditions to support its conclusion that a change in setbacks for oil and gas wells would in any way change a single environmental impact for sensitive receptors or otherwise.

Rather than rely upon actual data and analysis to support Policy COS-7.2, the DEIR relies heavily on a report by the Los Angeles County Department of Public Health issued in February of 2018 entitled: “Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County” (“LA County Report”). Such reliance is misplaced as the LA County Report fails to supply any actual data or analysis that is applicable to the circumstances at issue in the Ventura General Plan area. First, the basis of the study was to address public health and safety concerns related to oil and gas reserves that “lie beneath densely populated urban areas” which are the exact opposite of the areas currently available for new oil and gas wells in unincorporated Ventura County. Second, the LA County Report concluded, “the epidemiological studies are not able to conclude whether or not living near oil and gas activities is associated with long-term health impacts.” Third, neighborhood health investigations were conducted in support of the report, which demonstrated low risk levels for risks associated with hydrogen sulfide gas, operating pressures, and drilling frequency but six out of the 15 facilities they inspected had oil wells or tanks within 300 feet of residences or sensitive receptors which has no bearing on the current regulations for new wells in Ventura County.

No independent studies were conducted to determine actual setback criteria with and/or without mitigation measures. Rather, the study group looked at Seven (7) EIRs and Two (2) Health Impact Assessments plus one (1) study from Colorado, none of which related to oil and gas development in unincorporated Ventura County under existing setback requirements and emission controls that are applicable currently to new discretionary oil and gas wells in Ventura County. The LA County Report concluded that most of impacts could be mitigated, but it is unclear from this report upon what data and under what circumstances they based any of their findings. For example, even though they found little or no evidence of odors that were directly related to hydrogen sulfide (H₂S) that is associated with certain oil fields, they suggested imposing an additional 500-foot set back regardless of whether H₂S was known to be a problem in that oil field. Further, regarding their recommendation for setbacks to address noise issues, they failed to address the effect of routine mitigation measures that are employed during drilling operations. Simply put, the LA

County Report fails to provide substantial evidence to support the proposed increase in setback requirements for new discretionary oil and gas wells. The DEIR begrudgingly acknowledges that in July of 2019 the City of Los Angeles rejected the findings in the LA County Report and adopted a 600-foot setback for new oil and gas wells.

While the DEIR does reference a couple of other studies, the record is clear that none of the other studies cited in the DEIR, were conducted in Ventura County under conditions similar to or approximating the existing regulatory conditions to which a new discretionary oil and gas well would be subject. There is simply an absence of relevant data or a sufficient degree of analysis to provide decision-makers with the information needed to make an intelligent judgment concerning such a dramatic change in the setback requirements for new discretionary oil and gas wells.

It is worth noting that if Policy COS-7.2, (with mitigation measures or not) were adopted, a farmer who conducts farming operations utilizing diesel tractors and other heavy equipment, spraying pesticides, herbicides, and fertilizers, and otherwise engaging in dusty, noisy, routine farming immediately adjacent to sensitive receptors, would at the same time be completely precluded from developing the minerals on his property within 1,500 feet of those same sensitive receptors, even though such oil and gas development could be conducted in a manner that imposes little or no impacts on those same sensitive receptors. The application of an artificial setback requirement for which there is no actual scientific or other supporting data is illegal, is being applied in a punitive manner, and such loss of the rightful use of the farmer's property would be an unconstitutional taking, a fact that appears to be acknowledged in the DEIR.

Like Most Businesses, Trucking is the Only Feasible Method of Getting Our Product to Market.

Like most businesses in Ventura County that produce a product (i.e. farming, manufacturing, or other industries), the only feasible method for our company to get its product to market is to utilize trucking. Policy COS-7.7, as proposed, fails to address any other industry, but singles out oil production for some special mistreatment. Interestingly, this policy attacks only trucking to a refinery, but exempts from regulation the trucking of the finished petroleum product from that same refinery back into the community. There is no scientific or other basis that supports this disparate treatment such that the only logical conclusion is that it has been proposed as a punitive measure which is unconstitutional. As noted above, if the purpose of the Policy is to diminish Ventura County oil and gas production, the end result is an increase in GHG and other pollutants. Until the volume of oil production justifies the significant environmental impacts and costs associated with the construction and maintenance of new oil pipelines, trucking is the only feasible method of getting our product to market. Unless modified, Policy COS-7.7 will result in the inability to drill new discretionary oil and gas wells, which would cause economic harm to the mineral owners and other vested rightsholders, who intend to drill new discretionary oil and gas wells and it will result in an increase in GHG and other pollutants. The DEIR fails to include substantial evidence concerning the impacts to environment caused by the need to construct and maintain multiple new oil and water pipelines.

In Some Locations, Flaring of Natural Gas is the Only Feasible Option.

Policy COS-7.8 would require that natural gas produced from new discretionary wells be collected and used or removed for sale without flaring. ABA has expended much time and resources attempting to develop a sales market for the natural gas that is produced with its oil production. Unfortunately, despite our best hopes, none of the proposed compressed natural gas ("CNG") or liquid natural gas ("LNG") options we have investigated have come close to achieving a viable plan to take the natural gas we produce and

transport it in an environmentally and economically feasible manner for delivery to a stable, sustainable market. Although we are prohibited from sharing data concerning our efforts, we have also determined that delivering natural gas from our operation into a local utility line was not feasible regardless of the distance to the nearest utility pipeline. The remaining feasible option for most of our existing natural gas is to flare it in accord with the permits issued by the VCAPCD. To that end we have expended significant sums to obtain a BACT flare that has significantly diminished (>90%) the emissions from the flaring process and we participate in the air credit program administered by the VCAPCD (neither mitigation is considered in the DEIR). In other words, we have taken all feasible steps to mitigate the impacts of our production, which does not occur with most imported oil. Unless modified, Policy COS-7.8 would result in the inability to drill new discretionary oil and gas wells, which would cause economic harm to the mineral owners and other vested rightsholders, who intend to drill new discretionary oil and gas wells and it will result in an increase in GHG and other pollutants as well as constitute an unconstitutional taking of vested rights.

The DEIR Fails to Include an Economic Study or Address the Physical Changes to the Environment Caused by the Loss of Tax Revenue Resulting from Proposed Changes to Oil and Gas Policies.

The physical changes to the environment caused by the loss of tax revenue from diminished oil and gas production are significant and need to be addressed in the DEIR. While economic and social effects ordinarily need not be discussed in an EIR, physical changes to the environment caused by a project's economic or social effects are secondary impacts that must be included in an EIR's impact analysis if they are significant. (14 CCR §15064(e)). An EIR may trace the effects of economic or social changes resulting from a project to physical changes caused by the economic or social changes. (14 CCR §15131(a)). Under this rule, a social or economic effect resulting from a project may be found to cause a significant physical impact that must be analyzed in the EIR. See *Bakersfield Citizens for Local Control v City of Bakersfield* (2004) 124 CA4th 1184, 1215 (EIR improperly dismissed possibility that large shopping center could drive other retailers out of business as an economic effect when urban decay and other blight-like conditions could result); *El Dorado Union High Sch. Dist. v City of Placerville* (1983) 144 CA3d 123 (while increased student enrollment and potential for overcrowding by itself is likely insufficient to implicate CEQA, such effects are relevant when they will lead to construction of new facilities). See also *City of Hayward v Board of Trustees of Cal. State Univ.* (2015) 242 CA4th 833, 842 (EIR properly analyzed potential environmental impacts of constructing new fire station needed to serve project while also recognizing that cost of meeting increased need for fire protection services is economic impact).

The County of Ventura relies on tax revenue for its annual operating budget that includes significant tax revenue resulting from the drilling of new oil and gas wells. In fact, until there is a successful oil and gas well drilled, the mineral estate is not taxed and is not even included in the evaluation of property taxes. Operators of oil and gas properties, such as ABA, are required to provide data concerning new wells to the County Tax Assessor in order for each new well to be assessed for property tax purposes. The policies in the Draft 2040 General Plan attacking future oil and gas production will preclude mineral owners and their lessees from drilling new wells thus condemning the property (an unconstitutional taking) and cause the County to lose the property tax revenue that would have otherwise been generated had the minerals from such property been developed. Further, oil and gas development generates significant direct sales tax revenue and secondary revenue from employees, contractors and vendors all of which will be lost if the policies designed to inhibit future oil and gas development are adopted.

Even a cursory review of Section 5 of the Draft 2040 General Plan which addresses Public Facilities, Services, and Infrastructure reveals that any loss of funding for the essential facilities, services and

infrastructure the County provides would likely cause a physical change to the environment that would threaten the very existence of the citizens, homes, businesses, farms, open space and wildlife in Ventura County. Tight county budgets are already a reality with departmental belt tightening being the norm. For example, a loss of mineral tax revenue and associated sales tax revenue will further strain the budget of the Ventura County Fire Protection District (“VCFPD”) that provides fire protection in the unincorporated areas of the County along with various cities. A review of the Budget for the VCFPD for 2017-18 reveals that of the \$178,618,708 annual budget, property taxes (\$133,586,989) accounted for nearly 75% of the total budget. A cut in property taxes due to policies hindering oil and gas production will result in a drop in funding that will make the VCFPD less prepared to prevent and defend future wild fires to which the County of Ventura is already susceptible. Wild fires cause physical change to the environment which is significant and therefore an economic study must be conducted to determine the impacts caused by the loss of oil related tax revenue in this DEIR. Similarly, there are many other physical changes to the environment that are significant that could result from a lack of funding for the County services we rely on to protect the environment and if there is a deterioration of funding due to lack of oil related taxes, these direct and indirect effects must be included as a part of an economic study to provide decisionmakers with the information necessary to determine the significance of the impacts causing physical changes to the environment. The data to conduct such a study remains in the possession of the County which should be able, with little effort to determine, for example, how much of Ventura County’s budget is derived from property taxes on minerals? How much will Ventura County lose in tax revenue by implementing new policies that discourage or eliminate the drilling of new wells? How much sales tax revenue will be lost that is associated with drilling, maintaining oil and gas wells? How will this loss of revenue impact the Public Facilities, Services and Infrastructure described in the 2040 General Plan Section 5?

Ventura County’s Effort to Ban New Oil and Gas Wells Violates the Law

The DEIR relies upon legally infeasible policies proposed in the 2040 General Plan that have as their direct and indirect goal, the elimination of oil and gas exploration and production in Ventura County. These proposed Policy changes, as described herein, affecting new oil and gas wells are infeasible in that they will result in a ban on new drilling, which conduct by the County is preempted by state and federal law, is unconstitutional, violates equal protection under the law, is discriminatory as a matter of law, and constitutes a taking. ABA reserves all of its rights to pursue every available remedy resulting from the attempt by Ventura County to ban future oil and gas exploration and production in Ventura County.

DETAILED COMMENTS

ABA’s specific and detailed comments on the individual chapters and sections of DEIR are set forth below.

- 4.8-25** Without acknowledging the existing ad valorem taxes on oil that are paid to the County, the County is now proposing to evaluate the whether to establish another local tax on oil and gas operations. The DEIR states that increased taxes on oil and gas facilities may reduce GHG emissions which assertion is unsupported by substantial evidence. Further, as noted above, if an additional tax resulted in diminished oil and gas production, the result would be an increase in GHG and other pollutants as noted above. As other stationary sources contribute as much or more GHG, the County appears to be arbitrarily burdening a single industry sector by increasing taxes with no regard to the data presented in the DEIR

- 4.12-8** Policy COS 7.3. To the extent the County seeks to impose this Policy on new wells drilled subject to an existing and valid special use permit, such policy unlawfully impairs vested property rights and disregards well-settled controlling law concerning a mineral owner's right to recover resources from his or her sub-surface property and constitutes a taking under state and federal law. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed.
- 4.12-8** Policy COS 7.7. This policy is preempted by state and federal regulations. The DEIR disregards this. All analyses and assumptions flowing from the expected imposition of this policy are fatally flawed and not supported by substantial evidence. See the discussion under the General Comments.
- 4.12-12** As noted in the General Comments, as to Policy COS-7.3, there is no substantial evidence provided to justify an increase in the minimum setback requirements for new discretionary oil and gas wells or otherwise demonstrate why the existing setbacks are inadequate. Further, the imposition of such new setbacks will result in an unconstitutional taking. See the discussion in the General Comments regarding the inadequacy of the LA County Report.
- 4.12-13** Reliance on the CCST study is misplaced as it fails to address the existing standards, conditions, setbacks, and mitigation requirements that are in place in Ventura County and presently applicable to new discretionary oil and gas wells; a fact that the study acknowledges by stating that actual exposures and any related health impacts may be different and "have not been measured." In light of the stated deficiencies the CCST study is not sufficient evidence to support a change in the current setback requirements for new discretionary oil and gas wells.
- 4.12-13** Reliance on a University of Maryland study that purportedly (the study is no longer available on the U of M website) addressed fracking natural gas wells in the Marcellus Shale, completely fails to address the existing standards, conditions, setbacks, and mitigation requirements that are in place in Ventura County and applicable to new discretionary oil and gas wells. In light of the complete absence of relevance to existing conditions, the purported University of Maryland study is not sufficient evidence to support a change in the current setback requirements for new discretionary oil and gas wells.
- 4.12-14 through 4.12.18** See the General Comments regarding COS-7.2
- 4.12-18 through 4.12-20** Mitigation Measure PR-1 for Policy COS-7.2 is a tacit recognition that there is no substantive evidence to support the proposed 2,500-foot setback included in Policy COS-7.2. Mitigation Measure PR-1's continued reliance on the LA County Public Health Report referenced in the General Comments to support a 1,500-foot setback rather than the 600-foot setback adopted by the City of Los Angeles in July of 2019 demonstrates that this proposed policy is not driven by science, any true analysis, or the facts. As noted in the General Comments, LA County Public Health conducted no studies to measure actual conditions and certainly did not take into consideration the current conditions in Ventura County including the existing regulatory

and mitigation measures in place before they picked numbers out of a hat or otherwise guessed how far away you had to be to not smell H₂S. For oil fields in Ventura County that do not have H₂S, that is absolutely no evidence to support the final 500-foot setback reference in the LA County Public Health Report. That being said, there is no substantial evidence in the record to justify the setback language in Mitigation Measure PR-1 for Policy COS-7.2, however a 600-foot setback as adopted as adopted by the City of Los Angeles seems reasonable.

4.12-21 The DEIR's unsupported conclusions regarding horizontal drilling access are demonstrably false. The DEIR states that: "[w]hile the amended policy would put limitations on the placement of new discretionary oil and gas wells, it would not necessarily prohibit access to the oil and natural gas resources being sought. In resource locations near sensitive land uses, directional drilling (including horizontal drilling) techniques could be utilized. . . ." Ample evidence, readily available to the DEIR preparers, disproves the foregoing. Oilfields in Ventura County contain multiple oil sands vertically stacked in a compact manner. Accordingly, an additional offset of 1,500' would in most drilling cases either render the geological angle of attack moot, in that a well might ostensibly never be able to mechanically reach all of its targets, or, due to the foregoing, an operator might be required to drill multiple wells to achieve the same production, leading to a significant increase in impacts compared to a single well drilled to accomplish the same geologic goals. Directional drilling would not be possible to replace all of the reserves/resources due to terrain surrounding this area limiting surface locations as well the reservoir structural need to drill north-south directional paths from east or west locations.

4.12-21 through 4.12-23 The DEIR concedes that the majority of the COS policies to be adopted as part of the proposed GP 2040 are adopted for the express purpose of phasing out local oil and gas production within the County. The DEIR further concedes that the County will, as a direct result of this proposed phase-out, need to import foreign sources of oil and gas, and further acknowledges that the importation of such sources will have a more severe GHG production impact than reliance on local oil and gas resources. The DEIR then unlawfully punts on consideration of that more severe impact by stating that those impacts will occur "outside the GP 2040 plan area." This abdication of responsibility for GHG analysis is not only hypocritical given GP 2040's objective of combating climate change, but also unlawful. The more severe GHG impacts associated with the Importation of foreign oil and gas are known and must be considered now. To omit this evaluation is to deprive the public and decision makers of the ability to fully and fairly understand and consider the impacts of adopting GP 2040. See also the discussion of this in the General Comments.

4.12-26 The issues arising out of the requirement that produced water not be disposed of via trucking are the same as those discussed in the General Comments regarding trucking.

4.12-27 COS Policy 7.8. This policy is not only preempted, but is also inconsistent with VCAPD rule 54 as it notes that all new well gas would be piped through the same gathering system in existing fields. Outside of running a new pipeline to a different gas processing system, there would be no way to break out the gas from the general field production that goes through the

current gathering system through the gas plant, sales point, or flare. See the comments on the use of flares contained in the General Comments.

4.12-32 In balancing the competing environmental, economic, social and other issues relating to Mitigation Measures PR-2 and PR-3, the County should also consider the significant increases in GHG and other pollutants that will result if the County chooses imported oil with all of its associated risks and ramifications as compared to the cleaner, heavily regulated, locally produced oil that keeps workers employed and increased revenues in the County budget.

4.13-1 through The DEIR makes numerous, unsupported assumptions regarding the noise generated by oil and gas operations. Oil and gas operations generate noise equivalent to other industrial uses.

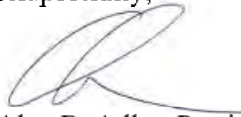
4.13-29 The DEIR does not, and cannot, provide evidence demonstrating that oil and gas production generates noise above and beyond the noise levels generated by industrial activities, let alone that it produces objectionable noise.

4.13-23 The discussion under Impact 4.13-4 lists oil supply facilities among major industrial noise sources. No substantial evidence exists in the DEIR or in the Background Report it references. Most oil supply facilities are located in areas far from sensitive receptors except to the extent that the County has permitted new development of sensitive receptors near oil supply facilities.

ABA hereby adopts and relies upon the comments to this DEIR contained in comment letters filed on behalf of all other oil and gas producers and oil industry associations that have provided comment letters as though such comments are fully set forth herein and as such they are incorporated herein by reference.

I look forward to working with County staff and the community to achieve a workable 2040 General Plan once this DEIR is rewritten to address the significant flaws referenced herein and the document is recirculated for further review and comment.

Respectfully,



Alan B. Adler, President

Simmons, Carrie

From: Adam Harper <aharper@calcima.org>
Sent: Thursday, February 27, 2020 4:01 PM
To: General Plan Update
Subject: CalCIMA Comments - Ventura General Plan Update EIR
Attachments: CalCIMA Comment Letter Ventura General Plan Mineral Resources.pdf

Follow Up Flag: Follow up
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Susan,

Thank you for confirming the General Plan comment deadline. Attached please find CalCIMA's comments.

Adam Harper
Director of Policy Analysis
CalCIMA
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aharper@calcima.org

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**California Construction and
Industrial Materials Association**

February 27, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Via e-mail: GeneralPlanUpdate@ventura.org

RE: Ventura County General Plan – Mineral Resources – Draft EIR Comments

Dear Mrs. Curtis:

These comments are offered on behalf of the California Construction and Industrial Materials Association (CALCIMA). CALCIMA is a statewide trade association representing construction and industrial material producers in California. Our members supply mineral resources such as construction aggregate inclusive of sand, gravel, crushed stone, slag, and recycled concrete that build our state's infrastructure, including public roads, rail, and water projects; help build our homes, schools and hospitals; assist in growing crops and feeding livestock; and play a key role in manufacturing wallboard, roofing shingles, paint, low energy light bulbs, and battery technology for electric cars and windmills. Our members develop mineral resources to provide the raw materials necessary to maintain society, and strategically site their operations throughout the state to minimize air quality impacts and greenhouse gas emissions associated with transportation by truck.

The Draft EIR for the Ventura County 2040 General Plan Update fails to give non-oil and gas mineral resources appropriate attention and analysis for impacts. As such the DEIR is deficient and should be corrected as we detail below. Once corrected, the DEIR should be recirculated for public review.

Incomplete Regulatory Setting

Neither the DEIR nor the Background report provide a complete and thorough description of the existing, current regulatory setting that oversees the management and production of mineral resources in the County and the State of California. This omission is particularly concerning because the existing General Plan discusses many of these regulatory schemes in great detail, along with the importance of mineral resources, generally, and the mineral resources located in the County, specifically. The EIR and the Background Report only disclose federal and state agencies that regulate pipelines and flaring, which is not applicable to all mineral resources that must be analyzed in an EIR under the CEQA guidelines. The EIR should be revised to include an overview and description of all potential regulations, regulatory bodies, and programs that regulate mineral resources in Ventura County.

Further, the deletion of policies from the previous general plan which are part of the current regulatory environment and whose removal may negatively impact mineral resources is not included in the current

regulatory background. Nor is their removal analyzed or quantified. Specifically, existing General Plan Policy 1.4.2 #6 "All General Plan amendments, zone changes, and discretionary developments shall be evaluated for their individual and cumulative impacts on access to and extraction of recognized mineral resources, in compliance with the California Environmental Quality Act," is not included in the revised general plan. Nor is any analysis of how that removal could affect mineral resources, or any explanation for why it's being removed. We remind you that mineral resources are part of the "environment" protected by CEQA.

"Less than Significant" Impact Determination Not Supported

The EIR fails to provide any discussion of non-oil and gas mineral resources in the "environmental setting" discussion in section 4.12 of the EIR. Without an understanding of the regulatory and environmental setting, there is simply no information or data in the EIR to support the County's outright dismissal of impacts to mineral resource production as "less than significant."

Further, the EIR fails to actually analyze for direct and indirect impacts to mineral resource zones that will occur as a result of the 2040 General Plan. The County admits that Land Use Designation changes in the 2040 General Plan will result in changes to land uses over known and important mineral reserves. But neither the EIR nor the Background Report provide any information regarding estimated and anticipated "buildout" in terms of acreage, actual location, number of dwelling units, and development density and intensity. These incompatible land uses will significantly impact future mineral resource production and must be evaluated and mitigated for in the EIR.

Finally, the determination of impacts on page 4.12-10 is not only completely unsupported, but it is contradicted in the EIR's language. The EIR admits that residential and industrial uses will be installed in the MRZ-2 zone (a major mineral resource zone), but then never provides any quantification of impacts or discusses the extent, location, or intensity of the development within the MRZ-2 zone. This impact is not "less than significant" as development over the MRZ-2 zone will significantly hamper access to these resources. The County's analysis is contrary to ISAG threshold of significance 1., which states that, "Any land use or project activity which is proposed to be located on or immediately adjacent to land zoned Mineral Resource Protection (MRP) overlay zone, or adjacent to a principal access road to an existing aggregate Conditional Use Permit (CUP), and which has the potential to hamper or preclude extraction of or access to the aggregate resources, shall be considered to have a significant adverse impact on the environment."


Direct and Indirect Impacts Not Analyzed Or Quantified

The EIR concedes that more than half of the project area to be impacted by the 2040 General Plan is zoned MRZ-3a/b. The County admits in the EIR that areas zoned MRZ 3a/b are those areas with known mineral deposits that lack sufficient detailed information to be labeled MRZ-2. But the EIR fails to conduct any impact determination or analysis of the project on these mineral resources and deposits.

The EIR never addresses indirect impacts to mineral resource development that will occur under the 2040 General Plan. As incompatible land uses (such as residential development) occur on or adjacent to mineral production and mineral reserves, compatibility conflicts will increase. Reasonably foreseeable indirect impacts include nuisance complaints, traffic conflicts, theft, vandalism and attempted trespass on mineral production sites. The EIR must analyze and evaluate these impacts on the ability to produce mineral resources in the County.

We appreciate the opportunity to provide comments.

Respectfully,



Adam Harper
Director of Policy Analysis

Simmons, Carrie

From: Kroll, Chris@SCC <Chris.Kroll@scc.ca.gov>
Sent: Thursday, February 27, 2020 4:09 PM
To: General Plan Update
Subject: DEIR for Ventura County 2040 General Plan
Attachments: DEIR 2040 General Plan Comment Letter 2-20.pdf

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Attached is a comment letter from the Coastal Conservancy.

Please let me know if any questions.

Thank you.

Christopher Kroll
Project Manager
State Coastal Conservancy
1515 Clay, 10th Floor
Oakland Ca 94612
510 286 4169
Chris.Kroll@scc.ca.gov



SENT VIA EMAIL

February 27, 2020

Ventura County Resource Management Agency
Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Avenue, L #1740
Ventura, CA 93009-1740

Re: DEIR for Ventura County 2040 General Plan

Dear Ms. Curtis:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the County's General Plan update. The Coastal Conservancy has been involved in planning and funding habitat restoration, public access and other projects in Ventura County for several decades.

Our comments relate to Section 4.2 Agriculture and Forestry. The DEIR identifies potential impacts and mitigation measures for agricultural resources. Specifically, the DEIR identifies Impact 4.2-1: Loss of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance (4.2-9) and two mitigation measures which would be added to the General Plan. These policies call for avoidance of direct loss of farmland and call for mitigation of loss at a 2:1 ratio through the establishment of an offsite agricultural conservation easement.

The Coastal Conservancy is currently working with local partners at Ormond Beach and on the Satna Clara River to develop and implement habitat restoration and public access plans for those areas. Ormond Beach, an area with especially important coastal wetland habitat, has been identified as being very much at risk from sea level rise. As a consequence, the Coastal Conservancy, The Nature Conservancy, and the City of Oxnard have been looking to acquire neighboring agricultural properties to allow the dunes, wetlands, and uplands to migrate inland as sea level rises. These properties would transition from agriculture to these threatened coastal habitats which would ensure the survival of the Ormond Beach wetlands complex and would act to provide a buffer to neighboring communities in South Oxnard at risk from sea level rise.

1515 Clay Street, 10th Floor
Oakland, California 94612-1401
510-286-1015 Fax: 510-286-0470

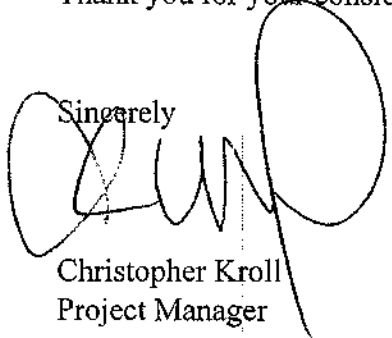
Similarly, the Coastal Conservancy has been funding the acquisition of thousands of acres of river-fronting land by The Nature Conservancy along the Santa Clara River since 2001 for ultimate habitat restoration and public access purposes to realize a Santa Clara River Parkway from the mouth of the river to the county line. The river is one of the last largely free flowing coastal rivers in southern California. But many areas have been encroached upon by development and adversely impacted by invasive non-native species such as *Arundo donax*. The Nature Conservancy has acquired some properties intended for habitat restoration and public access which currently support agriculture.

The proposed mitigation measures mentioned above may add significant additional costs and hurdles to implementing long-range planning for habitat restoration at Ormond Beach and along the Santa Clara River. These costs may be prohibitive to moving forward with implementing restoration plans for these areas.

We recommend that the County include exclusions to the above referenced mitigation measures for habitat restoration projects and related public access projects such as outlined above at Ormond Beach and the Santa Clara River.

Thank you for your consideration. Please contact me if I can provide additional information.

Sincerely



Christopher Kroll
Project Manager



Deanna Haines
Director of Policy, Strategy and Environment

Southern California Gas Company
Strategy & Engagement
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Los Angeles, CA 90013

Tel: 213.244.3010
Mobile: 213.220-1121
DHaines@socalgas.com

Susan Curtis
Manager, General Plan Update Section
Ventura County Resource Management Agency, Planning Division
800 South Victoria Avenue, L #1740
Ventura, CA 93009-1740

RE: County of Ventura – Draft 2040 General Plan Update EIR

Dear Ms. Curtis,

Southern California Gas Company appreciates the opportunity to submit comments on the Draft 2040 General Plan EIR (“DEIR”) and believes the document will provide valuable direction for the County to pursue effective, long-term development goals, as well as enhance local sustainability objectives. In particular, we support proposed policies that encourage beneficial reuse of County-generated waste for energy generation. Such policies have great potential to help reduce County GHG emissions, especially from agriculture and human waste streams.

However, SoCalGas is concerned by one of the County’s proposed mitigation measures: MM GHG-1: New Implementation HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development:

Implementation Program HAZ-X: Prohibit Natural Gas Infrastructure in New Residential Development – To support the proposed reach codes under COS-S, the 2040 General Plan shall include a new program in the Hazards and Safety element that prohibits the installation of new natural gas infrastructure in new residential construction through amendments to the Ventura County Building Code. This program shall also be extended to include commercial building types such as offices, retail buildings, and hotels where the use of natural gas is not critical to business operations and contain appliances that can be feasibility substituted with electricity powered equivalents.” (pg. 4.8-45-46).

While we support the County’s attempt to reduce emissions associated with buildings, this mitigation measure is technology-restrictive, may actually increase emissions and will limit the County’s ability to explore other innovative approaches to achieve emissions reductions in the future without deleveraging residents and businesses to hedge themselves against climate risks such as wildfires and household rising energy costs.

This type of ban would contravene California state law and policy as it relates to the availability of natural gas as a resource for residents and to the provision of a reliable and resilient energy supply. In addition, such a ban raises concerns under federal law.

Further, the DEIR's analysis and treatment of MM GHG-1 is legally flawed under the California Environmental Quality Act ("CEQA"). First, the DEIR fails to consider, discuss or analyze the environmental effects of implementing MM GHG-1. Second, the County cannot rely on MM GHG-1 to mitigate GHG impacts caused by the 2040 General Plan because MM GHG-1 is "infeasible" under CEQA. Lastly, by finding that climate change impacts would remain significant and unavoidable even with implementation of MMs GHG-1 through GHG-3, the County has neglected to consider other GHG emission reduction strategies as potential mitigation in the DEIR.

1. The DEIR Fails to Analyze the Environmental Impacts Associated with MM GHG-1

CEQA Guidelines section 15126.4(a)(1)(D) provides that, if a mitigation measure would itself cause significant environmental impacts, those impacts must be discussed in the EIR.¹ Here, the DEIR discusses what MM GHG-1 would consist of (*i.e.*, implementation of programs to prohibit natural gas infrastructure in new residential development, otherwise known as "Reach Codes"), notes that MM GHG-1 would implement Policy COS-8.6, which "will encourage zero net carbon emissions building design, which was assumed for quantifying GHG reduction benefits of the program", and states that implementation of a Reach Code will be predicated on a "cost-effectiveness study" by the California Energy Commission ("CEC").² However, the DEIR fails to discuss the potential environmental effects from implementing a Reach Code that bans or restricts natural gas in residential and/or commercial buildings.

Substantial evidence indicates that adopting and implementing MM GHG-1 and Reach Codes could lead to the following significant environmental impacts under CEQA.

- ***Utilities and Service Systems*** – In the CEQA Guidelines Appendix G checklist,³ section "XIX. Utilities and Service Systems" asks whether proposed projects would "[r]equire or result in the relocation or construction of new or expanded water, wastewater treatment or storage drainage, *electric power*, ... facilities, the construction or relocation of which *could* cause significant environmental effects."

¹ 14 Cal Code Regs. § 15126.4(a)(1)(D); *see also Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1027; *Stevens v. City of Glendale* (1981) 125 Cal.App.3d 986; *Ocean View Estates Homeowners Assn., Inc. v. Montecito Water Dist.* (2004) 116 Cal.App.4th 396, 400 (mitigation measures employed to prevent downstream flooding associated with reservoir project may themselves have a significant environmental impact, but was not analyzed); *Gray v. Cty. of Madera* (2008) 167 Cal.App.4th 1099, 1118 (EIR did not address potentially significant impacts associated with water quality mitigation measures).

² DEIR at 4.8-47.

³ *See* Governor's Office of Planning and Research, Final Adopted Text of Revisions for CEQA Guidelines, http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf.

Adoption and implementation of a Reach Code would require new buildings to either be all-electric or, if mixed-fuel, likely subject to higher levels of energy efficiency than all-electric buildings. It is reasonably foreseeable that some developers will choose to develop buildings with all-electric energy, which will increase the demand for electricity; however, there is no analysis in the DEIR as to whether (i) the local grid has the generating resources and capacity to meet such increased demand for electricity, or (ii) whether the local public utility or load-serving entity has sufficient distribution or transmission assets to provide increased service in a safe and reliable manner.⁴ The DEIR fails to quantify increased electricity demand, how many additional generation, distribution or transmission assets may be needed to facilitate this increased demand, or how the construction or relocation of such assets could impact the environment.⁵

The need to substantially overbuild local power systems when natural gas is not used as a base load means that a much greater amount of land, habitat and related physical resources will be impacted by solar and wind generation facilities. In a scenario where natural gas is banned across the state, new solar arrays and wind farms will need to be fabricated, transported to, and installed throughout California at more than five times the historical rate of deployment every year for the next 25 years.⁶ This deployment will significantly impact the physical environment across California. The fabrication, transportation and construction of the required generation facilities will also generate GHG emissions that would have cumulative climate change impacts.

In addition, as more electric energy is utilized new transmission capacity must be fabricated, transported to and installed throughout the state to connect with thousands of miles of new nationwide transmission lines. Additional transmission facilities will have significant impacts to the physical environment and result in aesthetic and potentially cultural impacts. The fabrication, transportation, and construction of new transmission equipment and capacity will also generate GHG emissions.

Because renewable generation is intermittent, California will also be required to increase power storage capacity to unprecedented levels if natural gas is banned. Additionally, California would need to dramatically increase hydropower capacity by increasing the size of state reservoirs by as much as 100 times above current levels. Battery storage on this scale would have significant hazardous materials, human health,

⁴ See, e.g., Pub. Res. Code § 451 (“Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.”).

⁵ Cf. *California Clean Energy Comm. v. City of Woodland* (2014) 225 Cal.App.4th 173, 208 (EIR for shopping center lacked required energy analysis despite stating, among other things, that existing facilities were sufficient to serve the project: “In addition, a substation, multiple utility lines (60 kV, 115 kV, and 230 kV), and gas transmission lines exist in the area to serve the buildout of the proposed project.”).

⁶ Clean Air Task Force, Comments On SB 100 Joint Agency Report - Charting a Path to a 100% Clean Energy Future, September 19, 2019, <https://efiling.energy.ca.gov/GetDocument.aspx?tn=229800&DocumentContentId=61244> (CATF 2019).

fire, fire suppression, and policing services, GHG emissions, and physical impacts. The construction of new hydropower storage would similarly have significant air quality, aquatic plant, animal and habitat, land, GHG emissions, water and hydrology, public safety, and other impacts.

CEQA caselaw holds that EIRs must consider the effects of changes to the environment that can result from an expansion of facilities, services, or utilities to serve the project.⁷ Here, DEIR Chapter 4.17 does not cross-reference MM GHG-1 and fails to discuss how implementation of MM GHG-1 may lead to expanded facilities, services or utilities that would be necessary in the future when a Reach Code is adopted.

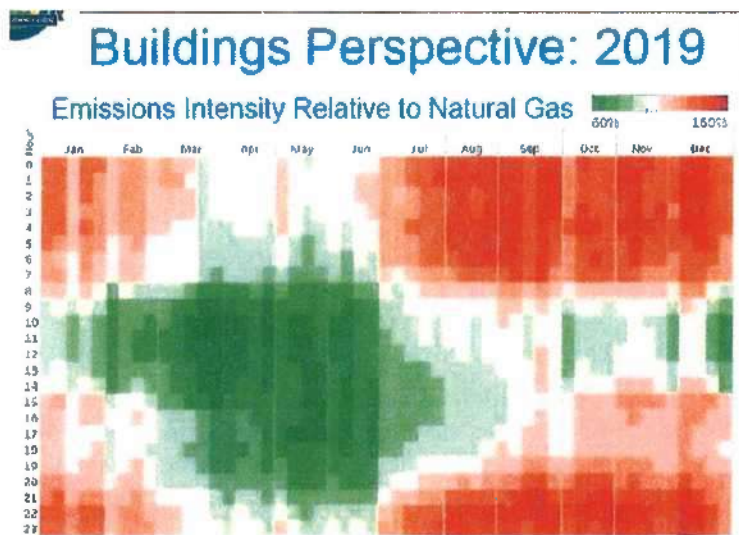
- **Greenhouse Gas (GHG) Impacts** – Implementation of a Reach Code under MM GHG-1 is predicated on the assumption that 100% electrified buildings are more energy-efficient and have a smaller carbon footprint than buildings with gas-powered appliances. Yet, multiple, independent studies demonstrate that such an assumption is not accurate.
 - In May 2019, the U.S. Department of Commerce, National Institute of Standards and Technology (“NIST”) published a study of the energy use, environmental impacts, and economic performance of residential buildings using either electricity or natural gas for space and domestic water heating. The analysis was based on a single-family home meeting all applicable building code requirements in Maryland. The NIST research concluded that a natural gas-heated home is more economical, results in “lower environmental impacts across numerous impact categories,” including lower GHG emissions, has a faster heating response time and generates a greater level of indoor comfort than an all-electric residence. In particular, GHG emissions were found to be higher because of the greater amount of fuels required to produce electricity for home use compared with the use of natural gas equipment in a residence.⁸
 - Although California has a larger proportion of renewable utility-scale energy than Maryland, consistent with the NIST study the CEC has also shown that, on average, natural gas generates substantially lower GHG emissions than electrical building use in California. As shown below, in 2018 the CEC estimated that electricity use in buildings produces a greater level of GHG emissions than natural gas about 60 percent of the year in California.⁹ Natural gas results in lower GHG emissions during a significant majority of all morning and evening hours in all months, the periods of highest residential energy demand. The significantly lower GHG emissions from natural gas use in California buildings

⁷ *Goleta Union Sch. Dist. v. Regents of Univ. of Cal.* (1995) 37 Cal.App.4th 1025; *El Dorado Union High Sch. Dist. v. City of Placerville* (1983) 144 Cal.App.3d 123.

⁸ E. O’Rear, D. Webb, J. Kneifel and C. O’Fallon. *Gas vs electric: Heating system fuel source implications on low-energy single-family dwelling sustainability performance*. Journal of Building Engineering, September 2019 issue. Full text available at https://tsapps.nist.gov/publication/get_pdf.cfm?pub_id=926046.

⁹ CEC, Building Decarbonization, 2018 Update – Integrated Energy Policy Report, Presentation by M. Brook at June 14 2018 IEPR Workshop at 16, <https://efiling.energy.ca.gov/GetDocument.aspx?tn=223817>.

reflects the fact that, except during daytime hours from about March to June, intermittent solar and wind is insufficient to meet in-state building energy demand. When intermittent renewable energy is not available, electrical generation is less efficient and produces a greater level of GHG emissions than natural gas use in California buildings.



- Other researchers have also questioned whether requiring all electric buildings might, however unintentionally, result in higher GHG emissions. Household energy demand tends to peak in the morning and evening hours, when residents are preparing to leave for or returning from work, school or other activities and when intermittent renewable power, particularly solar, is unavailable. At these times, electric supplies must be produced from other sources, including natural gas-fired power plants. Converting fuels, such as natural gas, to electricity to meet home demands is less efficient than directly using natural gas. As a result, a Stanford University researcher has estimated that when renewable power is unavailable, such as during the evening hours, residential electricity consumption produces *three times* more GHG emissions than natural gas.¹⁰
- The County cannot assume that, over time, GHG emissions from electrical generation will be reduced during peak morning and evening periods when natural gas is currently a lower emission energy source in the state. Recent studies indicate that even if additional intermittent wind and solar generation capacity is deployed, gas-fired electrical facilities will almost certainly remain essential to stabilize the state's power grid. The gas-fired generators serving the state, however, may be forced to increasingly operate as short-term inefficient

¹⁰ See Anthony R. Kavscek, *Is a natural gas ban an 'antidote to climate change'?*, San Jose Mercury News (Nov. 12, 2019), https://mercurynews-ca.newsmemory.com/?publink=754c8d2e3_13411ac. Professor Kavscek is a member of the Energy Resources Engineering faculty at Stanford University.

“peaker plants” which are known to emit more GHG emissions.¹¹ Thus, it is far from clear that an all-electric building mandate will reduce GHG emissions.

The DEIR must disclose and acknowledge potential GHG impacts that could occur from shifting building energy use from natural gas to electric power given reasonably foreseeable conditions in which electrical energy consumption would produce more GHG emissions than natural gas building use.

- **Energy Impacts** – Under the CEQA Appendix G Checklist, a project may involve a significant environmental impact if it would result in “wasteful” or “inefficient” energy consumption. MM GHG-1 seeks to prohibit the installation of new natural gas infrastructure in new residential construction. But nowhere does the DEIR discuss how that may result in either (i) a failure to use already captured natural gas, or (ii) the expenditure of additional energy to transport or divert natural gas elsewhere. Studies have shown that low carbon natural gas may continue to be a viable resource in assisting the state with reaching its climate goals, and should continue to be utilized in typically hard to electrify thermal applications in residential, commercial and industrial uses.¹² Specifically, Renewable Natural Gas (“RNG”), or biomethane, can be produced from biomass wastes (e.g. forest, agriculture, waste water and food and green waste) and then processed to inject into existing pipelines. Because its production removes more potent greenhouse gas from the air (methane) compared to what is produced when used (carbon dioxide), RNG production can be carbon negative from a lifecycle perspective. The County cannot determine whether full electrification policies will have unintended consequences of “wasteful” or “inefficient” energy use, without first analyzing these impacts in the DEIR.
- **Public Health and Safety** – In an era of increasingly dry and warm climates, and increased population in the wildfire urban interface along with build out of electrical infrastructure that could be an ignition source to serve population growth, California wildfires are occurring at increased frequencies and severities. Each of the three California investor-owned utilities adhere to wildfire mitigation plans (“WMP”) submitted to and approved by the California Public Utilities Commission (“CPUC”) — which establish internal mechanisms and protocols for de-energization events, also known as Public Service Power Shutoffs (“PSPS”). PG&E’s most recent PSPS event (occurring on October 6, 2019) impacted over 728,980 customers in 35 counties across the Sacramento Valley, Sierra Foothills, North Bay, South Bay, East Bay, Central Coast,

¹¹ See, e.g., Mark Thurber, *Gas-fired generation in a high-renewables world*, Stanford University School of Earth, Energy & Environmental Sciences and Precourt Institute for Energy Natural Gas Initiative, NGI Research Brief (June 2018), https://ngi.stanford.edu/sites/g/files/sbiybj14406/f/NGI_Brief_2018-06_R3_Thurber.pdf.

¹² Energy + Environmental Economics, *Decarbonizing Pipeline Gas to Help Meet California’s 2050 Greenhouse Gas Reduction Goal* (Jan. 2005), https://www.ethree.com/wp-content/uploads/2017/02/E3_Decarbonizing_Pipeline_01-27-2015.pdf.

and parts of Southern California.¹³ Southern California Edison (“SCE”)— the investor-owned utility whose service territory includes the County — is likewise obligated to implement PSPS protocols in certain circumstances giving risk to wildfires and has done so on numerous occasions in 2019 and 2020. For example, on November 15-17, 2019, SCE instituted a PSPS event that was initially estimated to impact 31,975 customers on 48 circuits across four counties (including the County), although had a much smaller impact than originally considered.

It is evident that increasing the amount of power needed from the electrical grid, such as by reducing the use of natural gas and increasing the use of electricity, will only exacerbate these problems. Until that time, however, PSPS events will be the “new norm,” both in Northern and Southern California. In addition to the large-scale economic losses that customers suffer as a result of a PSPS event, public safety issues can also arise due to several factors. These include loss of power at critical medical facilities, added strain on first responder services (such as local police departments and EMTs), loss of school days, and disruption of critical city infrastructure during emergency responses (such as traffic lights). Although MM GHG-1 will contribute to an overloaded grid and exacerbate the economic and safety implications from future, likely PSPS events; the DEIR mentions none of these issues.

The County should consider how increased deployment of other technologies, such as microgrids and energy storage projects, can help achieve decarbonization and resiliency goals. A 2018 CEC report found that microgrid projects offer a number of “value propositions,” including renewable energy integration, grid resiliency, and carbon reductions.¹⁴ The CEC report concluded that microgrid projects align with the state’s Renewables Portfolio Standard and GHG reduction mandates.¹⁵ The County should analyze the effectiveness of these mitigation options instead of a ban on natural gas.

- ***Impacts on Biological Resources, Water Quality and Noise Stemming From Additional Renewable Generating Resources*** – As stated above, the County has not demonstrated how adopting and implementing MM GHG-1 will impact existing electricity demand. In other words, no evidence exists to support the notion that existing or future electricity load could meet energy demands if natural gas infrastructure is banned for all future residential construction. Rather, it is reasonably foreseeable that new renewable energy resources will be needed, in addition to those required under the California Renewables Portfolio Standard (“RPS”), to meet new building electrification policies. The CEC’s 2019 *California Energy Efficiency Action Plan Staff Report* acknowledges that statewide

¹³ PG&E, “Public Safety Power Shutoff (PSPS) Report to the CPUC Oct. 9-12, 2019 De-Energization Event” (Oct. 25, 2019), at https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-10.09.19.pdf.

¹⁴ Asmus, Peter, Adam Forni, and Laura Vogel. Navigant Consulting, Inc. 2017. *Microgrid Analysis and Case Study Report*. California Energy Commission. Publication Number: CEC-500-2018-022, <https://ww2.energy.ca.gov/2018publications/CEC-500-2018-022/CEC-500-2018-022.pdf>

¹⁵ *Id.* at ii.

building electrification efforts “will seek to increase the share of renewable generation on the electricity grid...”¹⁶

The DEIR does not analyze how development of foreseeable additional renewable generating resources will impact the environment. Because it is likely that the County can determine with particularity the amount of MW or MWh that will be needed to fully implement MM GHG-1 in years to come, an accompanying analysis of generating resources and their potential environmental impacts must be provided. These renewable resource facilities are known to have their own environmental impacts associated with construction and operation, including but not limited to, impacts on federal and California sensitive species, water quality and quantity, nearby noise receptors, and project-related air quality impacts.

Because such commercial-scale facilities might be located outside the County does not insulate the County from its obligation to consider the indirect environmental impacts from MM GHG-1. Indeed, “the purpose of CEQA would be undermined if the appropriate governmental agencies went forward without an awareness of the effects a project will have on areas outside of the boundaries of the project area.”¹⁷ It is well-settled that “the project area does not define the relevant environment for purposes of CEQA when a project's environmental effects will be felt outside the project area.”¹⁸

- **Environmental Justice** – “Environmental justice” is defined as “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” Gov. Code § 65040.12(e). An Attorney General report defines “fairness” in this context to mean that “the benefits of a healthy environment should be available to everyone, and the burdens of pollution should not be focused on sensitive populations or on communities that already are experiencing its adverse effects.” “In addition, though CEQA’s main purpose is to evaluate whether a project may have a significant effect on the physical environment, “human beings are an integral part of the environment.”

The CEQA Guidelines state that “[e]conomic or social effects of a project may be used to determine the significance of physical changes caused by the project. For example, if the construction of a new freeway or rail line divides an existing community, the construction would be the physical change, but the social effect on the community would be the basis for determining that the effect would be significant.” Here, MM GHG-1 would require the construction of new electric infrastructure, including within the County, to supply the electricity necessary to support a natural gas ban. This

¹⁶ California Energy Commission, 2019 Energy Efficiency Action Plan Draft Staff Report, <https://efiling.energy.ca.gov/getdocument.aspx?tn=229496>.

¹⁷ *Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 369.

¹⁸ *County Sanitation Dist. No. 2 of Los Angeles County v. County of Kern* (2005) 127 Cal.App.4th 1544, 1582–1583.

physical change to the environment will lead to cost increases for ratepayers, an economic impact which must be considered under CEQA.

Before the County can adopt MM GHG-1, the DEIR must consider the impact it will have on customer affordability and ratepayers. About 90 percent of residential energy consumers in Southern California use natural gas for space and water heating, and ratepayers prefer a choice in how they heat their homes and cook their food. Further, according to a 2018 study produced by Navigant Consulting on behalf of the California Building Industry Association, switching to all-electric appliances could cost single-family homeowners in Southern California “over \$7,200 and increase energy costs by up to \$388 per year.” Low-income customers would be the most burdened by the costs of building electrification.

Thus, as a result of adopting MM GHG-1, the County will have effectively established an unnecessary energy policy that will disproportionately impact its disadvantaged communities. Under CEQA, the County cannot gloss over this potential impact.

Given the substantial evidence that adopting and implementing MM GHG-1 will result in potential significant environmental impacts, the County is required to undertake proper CEQA review of such impacts, including both the direct and indirect environmental impacts stemming therefrom.

2. MM GHG-1 is Not “Feasible” under CEQA

Pursuant to CEQA Guidelines section 15126.4(a)(1), an EIR must “describe feasible measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy.” “Feasible” means “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”¹⁹ Courts do not defer to an agency’s determination that mitigation measures will work when their efficacy is not apparent and there is no evidence in the record showing they will be effective.²⁰ Here, there is no evidence that MM GHG-1 is feasible as a means to mitigate GHG-related impacts associated with the 2040 General Plan. In fact, evidence demonstrates that natural gas bans are environmentally, economically and technologically infeasible.

Intermittent Renewable Generation Inhibits Feasibility of a Natural Gas Ban

Since 2015, several studies have evaluated the results of multiple assessments of national and California decarbonization strategies and options.²¹ Other studies have considered the power

¹⁹ CEQA Guidelines § 15364.

²⁰ See, e.g., *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1168; *Communities for a Better Env’t v. City of Richmond* (2010) 184 Cal.App.4th 70, 95; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1116-17.

²¹ See, e.g., P. Loftus et al., A critical review of global decarbonization scenarios: what do they tell us about feasibility?, WIREs Climate Change, January/February 2015, <https://www.researchgate.net/publication/267875650> A critical review of global decarbonization scenarios w

system and costs associated with relying solely on intermittent renewable power for decarbonization, in contrast with approaches that also utilize fossil fuels with CCS or renewable natural gas (“RNG”).²² These studies consistently conclude that renewable generation without a reliable baseload power source cannot achieve deep carbonization, will require installing massive amounts of additional generation and distribution facilities, and will be unaffordable.

- Relying on variable renewable sources such as wind, hydroelectric and solar to decarbonize will require the fabrication, installation and operation of approximately 3 to 10 times the level of solar and wind facilities that would be required if a reliable lower-carbon energy source was also utilized.²³ This overbuilding is required as intermittent power cannot achieve its nominal nameplate capacity—100 megawatts of solar or wind power will produce approximately 20-40 percent of capacity per year compared with approximately 90 percent capacity rates for natural gas. Thus, a much larger power system must be built to produce enough energy.
- As the percentage of intermittent renewable power serving a community increases, the amount of energy that is “curtailed” or wasted because it is not produced when needed can approach 40 percent of total generation.²⁴ Due to the timing mismatch between demand and the availability of solar and wind power, wind and solar would be unable to meet about 30 percent of California’s annual energy demand.²⁵ As a result, massive electrical power storage must be constructed, installed and operated

[hat do they tell us about feasibility A critical review of global decarbonization scenarios](#) (analysis of 17 decarbonization studies); J. Jenkins et al., Deep decarbonization of the electric power sector: insights from recent literature, Energy Innovation Reform Project, March 2017, <https://www.innovationreform.org/wp-content/uploads/2018/02/EIRP-Deep-Decarb-Lit-Review-Jenkins-Thernstrom-March-2017.pdf> (analysis of 30 decarbonization studies); S. Brick, Renewables and decarbonization: studies of California, Wisconsin and Germany, The Electricity Journal, 2016, https://www.researchgate.net/publication/299380869_Renewables_and_decarbonization_Studies_of_California_Wisconsin_and_Germany/fulltext/57dc15a408ae4e6f18469f9d/299380869_Renewables_and_decarbonization_Studies_of_California_Wisconsin_and_Germany.pdf?origin=publication_detail (analysis of California, Wisconsin and German studies); and J. Jenkins et al, Getting to zero-carbon emissions in the electric power sector, Joule, 2018, <https://www.sciencedirect.com/science/article/pii/S2542435118305622> (analysis of 40 studies).

²² See, e.g., N. Sepulveda et al, The role of firm low-carbon electricity resources in deep decarbonization of power generation, Joule, November 2018, <https://www.sciencedirect.com/science/article/pii/S2542435118303866?via%3Dihub> and B. Frew et al., Flexibility mechanisms and pathways to a highly renewable US electricity future, Energy, 2016, <https://web.stanford.edu/group/efmh/jacobson/Articles/Other/16-Frew-Energy.pdf>.

²³ See, e.g., P. Loftus et al., A critical review of global decarbonization scenarios: what do they tell us about feasibility?, WIREs Climate Change, January/February 2015, https://www.researchgate.net/publication/267875650_A_critical_review_of_global_decarbonization_scenarios_what_do_they_tell_us_about_feasibility? [hat do they tell us about feasibility A critical review of global decarbonization scenarios](#) and J. Jenkins et al., Deep decarbonization of the electric power sector insights from recent literature, Energy Innovation Reform Project, March 2017, <https://www.innovationreform.org/wp-content/uploads/2018/02/EIRP-Deep-Decarb-Lit-Review-Jenkins-Thernstrom-March-2017.pdf>.

²⁴ J. Jenkins et al, Getting to zero-carbon emissions in the electric power sector, Joule, 2018, <https://www.sciencedirect.com/science/article/pii/S2542435118305622> based on

²⁵ CATF 2019.

to capture a community's surplus intermittent power generation. In California alone, storing surplus generation would require batteries with an instantaneous capacity "larger than the generating capacity of the entire US electric grid." Even assuming battery storage costs fall dramatically to \$80 per megawatt, California communities would be required to pay about \$2.9 trillion to secure the necessary power storage.²⁶

- To increase the reliability of intermittent renewable energy, significant new large-scale transmission will be required to "knit together diverse wind, sun and hydro resources" including as much as "a twenty-fold increase in US transmission capacity and interties for very high renewable energy scenarios, according to the National Renewable Energy Laboratory."²⁷
- Due to the need for overbuilding, energy storage increases, and new transmission capacity, decarbonization using intermittent renewables without reliable low-carbon power sources would be unattainably expensive. The cost of electricity generation in California has been estimated to rise from about \$58 per megawatt hour with 60 percent renewable generation to \$389 using 80 percent renewable power, and an astonishing \$1,402 per megawatt hour at 100 percent renewable levels even assuming that the cost of wind, solar and storage falls substantially.²⁸ Other studies have estimated that California communities would pay more than \$1,600 per megawatt hour using 100 percent renewable power.²⁹

A Natural Gas Ban is Economically Infeasible for Customers

According to 2019 survey data published by the U.S. Energy Information Agency, the average household in California currently consumes about 7 megawatt hours of energy at a cost of approximately \$1,000 (\$0.14 per kilowatt hour). Published estimates indicate that California electrical generation costs could rise by 8 to 24 times current levels with 60 percent renewable power, higher utilization of renewables than at present. California households would also use more electrical power over time for transportation and other needs under a 100 percent renewable power scenario. Assuming that the average household electrical demand increases to 10 megawatt hours per year,³⁰ and that prices do not significantly increase until renewable use reaches 80 to 100 percent of total generation, the average California household electric bill

²⁶ CATF 2019.

²⁷ CATF 2019.

²⁸ CATF 2019.

²⁹ J. Temple, The \$2.5 trillion reason we can't rely on batteries to clean up the grid, MIT Technology Review, July 27, 2018, <https://www.technologyreview.com/s/611683/the-25-trillion-reason-we-cant-rely-on-batteries-to-clean-up-the-grid/>.

³⁰ EIA, *How much electricity does an American home use?* (Oct. 2, 2019), <https://www.eia.gov/tools/faqs/faq.php?id=97&t=3> (explaining that in 2018, the average annual electricity consumption for a U.S. residential utility customer was 10,972 kWh).

would increase to about \$8,000 per year at 80 percent renewable use, and to about \$24,000 per year with 100 percent renewable use.

Annual cost increases of this magnitude could be expected to stimulate significant population relocation to lower cost communities. Physical relocation, including the use of larger, high emission vehicles, could have significant impacts on air quality, population and housing. High household energy costs would also have significant health and safety impacts, including higher mortality and illness rates for vulnerable populations due to the inability to heat or cool homes. Direct relocation GHG emissions, and additional emissions that could occur from the movement of large amounts of households to lower cost communities with higher average household emission rates could also generate significant cumulative climate change impacts.

Higher electrical power costs could also result in the relocation, or failure to open and operate businesses in the state and the relocation of these activities to lower cost, higher-emission communities. As discussed in a January 2020 report by the California Legislative Analyst's Office, California communities already have disproportionately higher energy costs than most of the U.S. compared with marginal generation expenses. Consequently, higher costs associated with 100 percent renewable energy could generate significant GHG impacts.

3. The DEIR Finds that GHG Impact 4.8-1 Will Remain Significant and Unavoidable, but Does So Without Considering Other Feasible and Effective GHG Mitigation

Under CEQA, a lead agency may not adopt a project unless it has eliminated or substantially lessened all significant effects on the environment, or determined that remaining significant effects are acceptable due to overriding considerations.³¹ Here, the County concluded that, with the implementation of all identified GHG mitigation measures, Impact 4.8-1 would remain significant and unavoidable.³² However, the County cannot adopt this finding without implementation all feasible mitigation measures.³³ While it is true that "an EIR need not analyze 'every imaginable alternative or mitigation measure' ..., " it "must respond to specific suggestions for mitigating a significant environmental impact unless the suggested mitigation is facially infeasible."³⁴

SoCalGas urges the County to consider other GHG emission-reduction strategies that are scalable and easier to implement, more resilient and more affordable. Specifically, the use of renewable gases such as hydrogen and renewable natural gas (RNG), are low carbon to negative fuels that can dramatically reduce county greenhouse gas emissions and provide optionality and flexibility for the energy system.

³¹ Pub. Res. Code. § 15092(b).

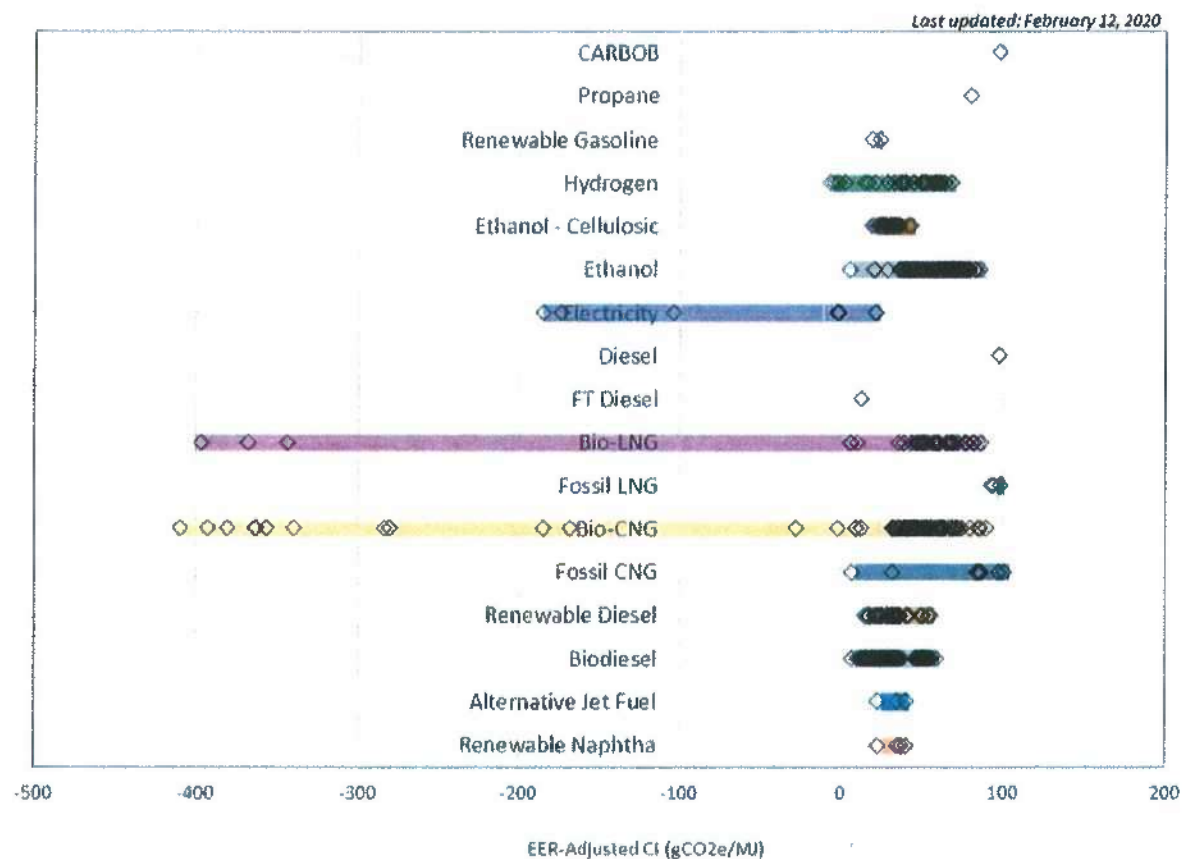
³² DEIR at 4.8-49.

³³ Guidelines §§ 15043(a), 15092(b).

³⁴ *Los Angeles Unified Sch. Dist. v. City of Los Angeles* (1997) 58 Cal. App. 4th 1019, 1029; citing *San Francisco Ecology Center v. City and County of San Francisco* (1975) 48 Cal.App.3d 584, 596 (EIR did not respond to School District's suggestion that air conditioning and filtering might prove feasible means of reducing air quality impacts under proposed plan).

As stated in our prior comment letter for the General Plan Update (attached), RNG, or biomethane, can be produced from a variety of waste resources (e.g. agricultural waste, forest biomass, waste water, and landfills) and then processed to meet pipeline specifications. Further, green hydrogen can be produced from excess solar and wind power generated when demand is low. The hydrogen can then be stored for later use in hydrogen fueling stations, be used for electric generation in fuel cells, and/or blended into the gas pipeline system to decarbonize gas supply which benefits all sectors. This technology, called Power-to-Gas, has been demonstrated in numerous pilot projects, including UC Irvine.³⁵

Carbon Intensity Values of Current Certified Pathways (2020)



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Renewable Gases Can Achieve Numerous Co-Benefits

Because most production of renewable natural gas removes methane from the air and converts it to carbon dioxide when used, RNG production can be significantly carbon negative from a

³⁵ UCI Samueli School of Engineering. UCI and SoCalGas Partner to Design "Advanced Energy Community." December 2017. Available at: <https://engineering.uci.edu/news/2017/12/uci-and-socalgas-partner-design-advanced-energy-community>

³⁶ California Air Resources Board. LCFS Certified Pathway Carbon Intensities. February 2020. Available at: <https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities>

lifecycle perspective. Renewable gases can also achieve numerous co-benefits by helping the energy system be more flexible and work across sectors. For example, conversion of dead trees or other forest waste to renewable gases can dramatically reduce wildfire risks. The Power to Gas concept that can convert excess renewable electricity to hydrogen and store it for months instead of hours as in the case with batteries enables extension of the renewable energy for long durations to meet demand. Finally, renewable gases can reduce greenhouse gases in hard to decarbonize sectors such as agriculture and industry which form the economic engine of California. As the County is aware, SoCalGas is working towards the goal of replacing 5% of our natural gas supply with RNG by 2022, and 20% by 2030.

The CPUC is evaluating the levels of hydrogen that can be blended into the natural gas system. Just last month, Lawrence Livermore National Labs issued a study of how California can get to carbon neutrality by leveraging the gas pipelines and their rights-of-way to convey hydrogen and carbon dioxide.³⁷ In fact, the most cost-effective carbon negative solution is to convert biomass waste to hydrogen and sequester the carbon via pipelines using the rights-of-ways of the natural gas system. In addition, studies show that replacing roughly 16% of SoCalGas throughput with RNG achieves the same emissions reductions as electrifying the entire building sector by 2030.³⁸

Inclusion of RNG as a mitigation strategy also aligns with policies already included in the Draft General Plan. In particular, policies PFS-5.4, PFS-5.5, PFS-5.6, and COS-8.1 all support reuse of waste resources for energy generation as well as replacement of fossil fuels with renewable energy resources, including bioenergy. Accordingly, the use of renewable gases as a mitigation measure seems a natural complement to these policies, whereas a ban on gas infrastructure seems counterproductive. Therefore, we encourage the County to replace Mitigation Measure GHG-1: Prohibit Natural Gas in New Residential Construction, with an alternative mitigation measure that is performance-based, technology neutral and allows for flexibility in use of renewable fuels to help achieve emissions reductions.

We appreciate the opportunity to submit comments on the DEIR and look forward to working with the County as a valuable energy partner to achieve their environmental goals. If you have any questions, please do not hesitate to reach out via telephone or email.

Sincerely,



Deanna Haines
Director Policy, Strategy and Environment

³⁷ Lawrence Livermore National Laboratory. Getting to Neutral. January 2020. Available at: https://www-gs.llnl.gov/content/assets/docs/energy/Getting_to_Neutral.pdf

³⁸ Navigant Consulting. Gas Strategies for a Low-Carbon California Future (April 2018).

Simmons, Carrie

From: Downing, Clay
Sent: Thursday, February 27, 2020 4:54 PM
To: Simmons, Carrie; General Plan Update
Cc: Curtis, Susan
Subject: Fw: DRAFT EIR Comment Letter on VC 2040 General Plan
Attachments: Comment Letter on VC2040 DRAFT EIR .pdf

FYI

From: Cameron Spencer <CSpencer@portofh.org>
Sent: Thursday, February 27, 2020 4:25 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Sandra Cruz <SCruz@portofh.org>; Dona Toteva Lacayo <dlacayo@portofh.org>; Kristin Decas <KDecas@portofh.org>; Downing, Clay <clay.downing@ventura.org>
Subject: DRAFT EIR Comment Letter on VC 2040 General Plan

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Good Afternoon Susan,

Please see the attached comment letter on the DRAFT EIR for the VC2040 General Plan.

Best Regards,

Cam Spencer
Public & Government Relations Manager

The Port of Hueneme
Oxnard Harbor District
333 Ponomo St
Port Hueneme, CA 93041
O: 805-488-3677 x2205
C: 805-816-8324
Email: CSpencer@PortofH.org
Website: www.portofhueneme.org



.....
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Kristin Decas CEO & Port Director
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OXNARD

February 27, 2020

Ms. Susan Curtis
General Plan Update Manager
County of Ventura
800 S. Victoria Ave.
Ventura, CA 93009

**RE: Comment on Draft Environmental Impact Report for the County of Ventura
Draft 2040 General Plan**

Dear Ms. Curtis,

The Port of Hueneme appreciates the opportunity to comment on the *Draft EIR* for the County's *2040 General Plan*. The inclusion and thoroughness exhibited throughout this document is appreciated. The Port applauds the detailed work of County staff, and the deliberate inclusion of economic vitality spurring sustainable development within our County.

We respectfully submit the following comment:

1. Pg. 4.13-29 Impact 4.13-7 Expose Noise-Sensitive Land Uses to Railroad Noise and Vibration that Exceeds Applicable Standards

We ask the County to revise this section to clarify that the costs associated with measuring noise levels surrounding railways for the 2040 General Plan Policies – HAZ-9.2 and HAZ-9.6 will not be placed on the owner or operator of the railroad.

We suggest the following text to clarify:

“However, 2040 General Plan Policies-HAZ-9.2 and HAZ-9.6 would ensure indoor noise levels in habitable rooms do not exceed 45 dBA CNEL and outdoor noise levels do not exceed 60 dBA L10 and would require an acoustical analysis to determine noise levels and provide appropriate reduction measures. *Costs associated with measuring these noise levels will not be the burden of the railroad owner, nor operator.* As required by 2040 General Plan Policy HAZ-9.1, the County would



prohibit discretionary development which would be impacted by noise that cannot be reduced to meet the standards prescribed in Policy HAZ-9.2.”

Sincerely,

A handwritten signature in black ink, appearing to read 'Kristin Decas', enclosed in a thin black rectangular border.

Kristin Decas
CEO & Port Director

The Port of Hueneme
Oxnard Harbor District

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 4:26 PM
To: Simmons, Carrie
Subject: FW: Climate change has environmental impacts!

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Pamela Klieman <info@email.actionnetwork.org>
Sent: Thursday, February 27, 2020 4:23 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming faster than any county in the nation. Our ocean is acidifying faster. Drought and floods have hit us worse, and we can expect more extreme weather.

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Pamela Klieman

pamela.klieman@hotmail.com

943 Olympia Ave

Ventura, California 93004

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 4:32 PM
To: Simmons, Carrie
Subject: FW: Ventura County General Plan

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
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Ventura County General Plan Update. Join the conversation at VC2040.org
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Patrick de Nicola <patrickdenicola@gmail.com>
Sent: Thursday, February 27, 2020 4:30 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County General Plan

Dear Ms. Curtis,

I am writing to express my concern over the flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great-great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my great grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and

4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government’s housing policies.
3. The EIR does not adequately address the enormous “indirect impacts” that will occur as a result of implementing the General Plan, calling them “less than significant.”
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,

Patrick de Nicola

Simmons, Carrie

From: roncyndied@aol.com
Sent: Thursday, February 27, 2020 4:30 PM
To: General Plan Update; Curtis, Susan
Subject: Ventura County General Plan

Follow Up Flag: Follow up
Flag Status: Flagged

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

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But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

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1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.
3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

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Sincerely,
Cynthia Thomas Dickson
32075 Camino del Cielo
Trabuco Canyon, CA 92679

Simmons, Carrie

From: Lizzy Martinez <emchambers@aol.com>
Sent: Thursday, February 27, 2020 4:20 PM
To: Curtis, Susan
Cc: General Plan Update
Subject: 2040 General Plan Comments

Follow Up Flag: Follow up
Flag Status: Flagged

Sanger Hedrick, Chair

Agricultural Policy Advisory Committee (APAC) County of Ventura
[800 S. Victoria Blvd.](#)
[Ventura, CA 93003](#)

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as "capable of being accomplished in a successful manner within a reasonable period of time,

" (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts

and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;

4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

February 19, 2020

[Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org](#)

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County’s Zoning Ordinance and the County’s minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an “Agricultural Mitigation Measure” through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park’s proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, “the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter.”

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses “indirect impacts” that will occur as a result of implementing the 2040 General Plan as “less than significant.”

Page 4.2-13 of the EIR states “AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of

living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production.”

Page 4.2-17 of the EIR states: “Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...**Therefore, the potential for conflicts would be minimal. This impact would be less than significant**” (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

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Page **3** of **4**

and farming operations because of conflicts attributed to residential development. The recent interim urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project”, must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘program’ EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that "...a reduction in available water resources for irrigation" is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion.

But the County fails to analyze or propose mitigation measures to address this significant impact.

[Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / \[info@colabvc.org\]\(mailto:info@colabvc.org\)](http://www.colabvc.org)

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

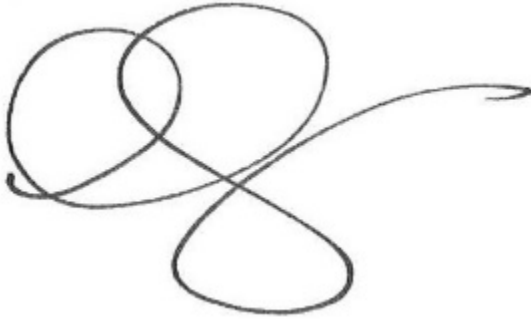
CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and
3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director

A handwritten signature in black ink, consisting of several overlapping loops and a long, thin tail extending to the right.

In support of this letter-
Elizabeth Chambers Martinez

Sent from my iPhone

Simmons, Carrie

From: Lizzy Martinez <emchambers@aol.com>
Sent: Thursday, February 27, 2020 4:25 PM
To: Curtis, Susan
Cc: General Plan Update
Subject: 2040 General Plan Comments

Follow Up Flag: Follow up
Flag Status: Flagged

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

[800 South Victoria Avenue](#), L#1740

[Ventura, CA 93009-1740](#)

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it’s clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR’s lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

Laura McAvoy

I support this letter-
Elizabeth Chambers Martinez

Sent from my iPhone

Simmons, Carrie

From: Patrick de Nicola <patrickdenicola@gmail.com>
Sent: Thursday, February 27, 2020 4:28 PM
To: General Plan Update
Subject: Ventura County General Plan

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Ms. Curtis,

I am writing to express my concern over the flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great-great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my great grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and

with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.
3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,

Patrick de Nicola

Simmons, Carrie

From: Trevor Zierhut <trevor@thezierhutgroup.com>
Sent: Thursday, February 27, 2020 4:32 PM
To: General Plan Update
Cc: Curtis, Susan
Subject: Draft EIR Comment Letter
Attachments: Labor Letter Comment on DEIR.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

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Good afternoon,

Please accept the attached letter below as part of the public comment on the 2020 General Plan Draft Economic Impact Report. The letter expresses the views of coalition partners named in the letter and I can share their contact information with you if needed for verification.

If possible, I would appreciate a response as confirmation of receipt of this comment for the public record.

Thank you,

--

Trevor Zierhut
Principal Consultant
[The Zierhut Group](#)
805-407-5014





LiUNA! LABORERS'
LOCAL 585
Feel the Power

February 27, 2020

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L #1740
Ventura, California 93009

Re: General Plan Update Draft Environmental Impact Report Comments

Dear Ms. Curtis,

We represent workers in Ventura County through the Tri-Counties Building & Construction Trade Unions, LiUNA Local 585, International Brotherhood of Electrical Workers (IBEW 952), and Southwest Carpenters.

Our organization advocates for local government policies that support the rights of workers, their families and communities. We advocate for policies that support a strong economy that provides robust opportunities for a skilled, well-trained workforce. We are committed to fight against policies that restrict the ability to work in the high-paying jobs that afford our members lifetime career opportunities.

The Draft Environmental Impact Review (DEIR) does not sufficiently evaluate the impacts that the General Plan policies will have on jobs and the economy. It falls short of addressing the housing crisis facing Ventura County. It does not do enough to address the need for increasing housing supply in the county.

The General Plan Update disproportionately targets the local oil and gas industry that have worked in Ventura County for decades. The DEIR underrepresents the number of workers who would be impacted by the oil and gas policies outlined in the General Plan.

We represent a diverse group of workers who depend on high-paying jobs with upward mobility and benefits for our families. The suggestion that our members should re-train from a specialized skill they have dedicated their career to is objectionable. The DEIR must address the salary differences and opportunities between the suggested green jobs of a carbon neutral economy and those currently held by the skilled workforce.

Our primary goal is to ensure our members' jobs and families are protected. Upon review of the General Plan Update it is clear that jobs will be impacted and in some cases eliminated and that is not reflected in this iteration of the DEIR.

We respectfully ask that the county revises and recirculates the DEIR and takes the time to thoughtfully analyze the impacts these policies will have on working families. The General Plan is a critical factor in the county's economic success. It should encourage economic growth and opportunity for working people.

Sincerely,

Martin Rodriguez
President
Tri-Counties Building & Construction Trades Council

Tony Skinner
Executive Secretary-Treasurer
Tri-Counties Building & Construction Trades Council

Jeff Bode
Business Manager
International Brotherhood of Electrical Workers Local 952

Anthony Mireles
Business Manager
LiUNA Laborers Local 585

Mercy Urrea
Southwest Regional Council of Carpenters

Simmons, Carrie

From: Douglas Spondello <DSpondello@MoorparkCA.gov>
Sent: Thursday, February 27, 2020 4:37 PM
To: General Plan Update; Curtis, Susan
Cc: Karen Vaughn; Brown, Troy; Sean Corrigan
Subject: Comments Regarding the VC2040 General Plan - Draft EIR
Attachments: VC2040 DEIR - City of Moorpark 2.27.20.pdf

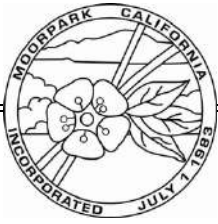
Follow Up Flag: Follow up
Flag Status: Flagged

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Good Evening Susan and Team,
Congratulations on your progress and release of the Draft EIR for VC2040! We are pleased to provide the attached comments and thank you for the opportunity to discuss.
Respectfully,
Doug

Douglas Spondello
Planning Manager
Community Development Department
City of Moorpark | 799 Moorpark Ave. | Moorpark, CA 93021
(805) 517-6251 | dspondello@moorparkca.gov
www.moorparkca.gov





CITY OF MOORPARK

COMMUNITY DEVELOPMENT DEPARTMENT | 799 Moorpark Avenue, Moorpark, California 93021
Main City Phone Number (805) 517-6200 | Fax (805) 532-2540 | www.moorparkca.gov

February 27, 2020

Ventura County Resource Management Agency, Planning Division
ATTN: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009

Subject: Comments Regarding the Draft Environmental Impact Report (EIR) for the County of Ventura Draft 2040 General Plan

Mrs. Curtis,

Thank you for providing the opportunity to provide comments regarding the Draft EIR for the County of Ventura Draft 2040 General Plan. The City of Moorpark requests that you consider the following:

Comment 1

The City of Moorpark had previously provided comments on July 3, 2015 and August 16, 2019 regarding a desire to have certain regional roadway improvements acknowledged as priorities in the Circulation Element and, by extension, the EIR. These items do not appear to be included, either directly or indirectly, in the current draft. Our City Council has identified traffic improvements as a strategic priority. We are therefore resubmitting our request that the following projects are identified within the goals and policies of the Circulation Element and EIR:

- Improvements to Grimes Canyon Road, including the realignment of Hitch Boulevard at Los Angeles Avenue; and
- Construction of the Broadway Road connection to the State Route 23 bypass, as outlined in the 2009 Ventura County Congestion Management Plan.

Additionally, the Draft Circulation Element (page 4-3) establishes a Level of Service (LOS) standard of "E" for State Route (SR) 118, immediately west of the City of Moorpark. This condition should be addressed and improved in the General Plan and can be mitigated with the construction of an additional lane of travel in each direction. The draft EIR and General Plan Circulation Element should consider mitigation the LOS E condition and circulation on this corridor of SR118.

Comment 2

Page 4.13-1 states the following (emphasis added):

ENVIRONMENTAL SETTING

In addition to the information provided in Section 11.6, “Noise and Vibration,” of the Background Report (Appendix B), the following information is relevant to understanding and evaluating the potential noise and vibration impacts of the 2040 General Plan.

The existing traffic noise evaluation included in the Background Report (Appendix B) analyzed a number of roadway segments that are located outside of the County’s jurisdiction. In addition, the traffic noise assessment included in the Background Report (pages 11-88 to 11-97) was based on traffic data from 2014 and 2015. Since the preparation of the Background Report, more recent traffic data are available. **For the purposes of the analysis, the traffic noise modeling was updated to only evaluate roadway and highway segments within the unincorporated portions of the county that are regularly counted by the County’s Public Works Agency and to include updated traffic counts conducted in 2017 and 2018.** Table 4.13-1 provides the modeled existing noise levels at 50 feet from the roadway, as well as distances to the 60, 65, and 70 A-weighted decibel (dBA) community noise equivalent level (CNEL) contour for all modeled roadways. Detailed noise modeling inputs are provided in Appendix E.

Pursuant to the requirements of the California Environmental Quality Act, the EIR must evaluate traffic noise modeling for all roadway and highway segments that are within the scope of the DEIR and Draft General Plan. The scope of analysis in the EIR should not be limited to roadways that may or may not be “counted” by the County Public Works Agency.

Comment 3

Table 4.13-1 Existing Noise Contour Distances and Table 4.13-6 Projected 2040 Noise Levels and Contours: Please update this section to include a map or exhibit that more clearly indicates the limits of each “corridor and segment”. In many cases, the scope of each corridor and segment are not clearly identified. Additional comments may be provided when the limits of the corridors are fully understood.

Comment 4

Table 4.13-1 Existing Noise Contour Distances and Table 4.13-6 Projected 2040 Noise Levels and Contours: Corridor and Segment 105 references “Walnut Avenue north of Los Angeles Avenue (SR 118)”. “Walnut Street” is not within the City of Moorpark; please clarify whether this is intended to reference Walnut Avenue or Walnut Canyon Road. As mentioned in Comment 3, a map or exhibit would also assist in identifying what this corridor includes.

Comment 5

Page 4.13-8 states the following:

Generate new or additional transit uses or heavy vehicle (e.g., semi-truck or bus) trips **on uneven roadways** located within proximity to sensitive uses that has the

potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria of the transit use thresholds shown in Table 4.13-3 below.

This section should be updated to identify the thresholds used to determine an uneven roadway or include a map or exhibit that identifies where these conditions exist.

Comment 6

Page 4.13-9 identifies Policy HAZ-9.2 for Noise Compatibility Standards and provides the following mitigation:

4. New noise generators, proposed to be located near any noise sensitive use, shall incorporate noise control measures so that ongoing outdoor noise levels received by the noise sensitive receptor, measured at the exterior wall of the building, do not exceed any of the following standards:

- a. Leq1H of 55dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.;
- b. Leq1H of 50dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.; and
- c. Leq1H of 45dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.

This mitigation measure may not be sufficient to address noise impacts presented by increased operations of *existing* noise generators. This language should be updated to clarify that the mitigation measure will apply to all new noise generators and also existing noise generators that may be modified to expand or intensify the noise generated.

Comment 7

Page 4.13-10 includes Policy HAZ-9.3:

Policy HAZ-9.3: Development Along Travel Routes. The County shall evaluate discretionary development for noise generated by project-related traffic along the travel route to the nearest intersection which allows for movement of traffic in multiple directions. In all cases, the evaluation of project-related roadway noise shall be evaluated **along the travel route(s) within 1,600 feet of the project site.**

The use of a 1,600 foot boundary in order to determine whether or not a proposed development will impact roadway noise is not clearly explained and can appear arbitrary. The term “travel routes” is also not clearly defined and open to interpretation (i.e. private driveways, access easements, public rights-of-way). The noise impacts associated with major new development do not cease when trucks travel 1,600 feet beyond the project site. Accordingly, this policy should be developed further to evaluate and mitigate the noise impacts along the likely travel routes serving the project.

Comment 8

Page 4.13-14 includes the following:

15. Select truck routes for material delivery and spoils disposal so that noise from heavy-duty trucks will have a minimal impact on noise sensitive receptors. **Proposed truck haul routes are to be submitted to the County Transportation Division for approval.**

a. Conduct truck loading, unloading, and hauling operations so noise and vibration are kept to a minimum.

b. Route construction equipment and vehicles carrying soil, concrete or other materials over streets and routes that will cause the least disturbance to residents in the vicinity of construction sites and haul roads.

c. Do not operate haul trucks on streets within 250 feet of school buildings during school hours or hospitals and nursing homes at any time, without a variance.

d. Submit haul routes and staging areas to the County Transportation Division for approval, at least 30 days before the required usage date.

If the above listed construction equipment noise control measures are not sufficient to reduce noise levels, the project would be required to install construction noise curtains, blankets, and barriers or receptor noise control barriers detailed in the *Construction Noise Threshold Criteria and Control Plan* to ensure noise levels are reduced below applicable County noise standards. The 2040 General Plan policies and measures listed in the *Construction Noise Threshold Criteria and Control Plan* would require individual development projects to include numerous noise-reducing techniques and minimize noise at receiving land uses. The effectiveness of these measures would be ensured through Policies HAZ-9.4 and HAZ-9.2, which require the implementation of mitigation developed through project-level acoustical analyses. Because noise levels generated from construction under the 2040 General Plan would be temporary and reduction measures would be implemented to ensure construction noise would not exceed applicable standards at nearby receptors, this impact would be less than significant.

Please update this item to identify the specific criteria upon which the County Transportation Division would be evaluating proposed truck haul routes, including items a. through d. As written, it appears as though the routes are submitted for summary approval, with no evaluation or discretion. It is also requested that language is included to require the County Transportation Division to notify the appropriate City counterparts within any jurisdictions that may be impacted by the proposed truck routes and provide an opportunity to receive feedback received prior to approving a truck haul route.

We sincerely appreciate your consideration of these items and look forward to continued collaboration on issues that cross jurisdictional boundaries. Please feel free to contact me at (805) 517-6251 or Dspondello@moorparkca.gov if you would like to discuss further.

Regards,

A handwritten signature in black ink, appearing to be the name 'Douglas Spondello'.

Douglas Spondello
Planning Manager

CC:

Troy Brown, City Manager
Karen Vaughn, AICP, Community Development Director
Sean Corrigan, City Engineer/Public Works Director

Simmons, Carrie

From: Maxwell, James
Sent: Thursday, February 27, 2020 4:39 PM
To: General Plan Update; Curtis, Susan
Cc: Loeb, Kim
Subject: RE: VC2040 | Notice of Availability of a Draft EIR for Public Review
Attachments: VC 2040 GPU DEIR GW Response Memo 20200227.pdf; Chapter 10 Water Resources_GW review_20200227.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Susan,

Please see the attached response memo from Groundwater Resources for the Ventura County 2040 General Plan Update Environmental Impact Report. Groundwater Resources also reviewed and updated relevant information in Chapter 10 (Water Resources) of the Background Report (Appendix B) from the DEIR. A word document of Chapter 10 with markup and comments is also attached.

Let us know if you have questions or comments.

Thanks,

James Maxwell, PG, CEG
Groundwater Specialist
Watershed Protection District
Water Resources Division
P: 805-654-5164
E: james.maxwell@ventura.org

From: Ventura County General Plan Update <generalplanupdate@ventura.org>
Sent: Monday, January 13, 2020 7:29 AM
To: Maxwell, James <James.Maxwell@ventura.org>
Subject: VC2040 | Notice of Availability of a Draft EIR for Public Review

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Notice of Availability of a Draft EIR For Public Review

Notice is hereby given that a Draft Environmental Impact Report (EIR) has been prepared by the County of Ventura, State of California, and is available for public review pursuant to the California Environmental Quality Act (CEQA) Guidelines for the Ventura County 2040 General Plan (State Clearinghouse No. #2019011026).

PROJECT LOCATION: All unincorporated areas within Ventura County

PROJECT DESCRIPTION: The proposed project is a comprehensive update of the County of Ventura General Plan, also known as the 2040 General Plan. The 2040 General Plan will set forth the County's vision of its future and identify the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including but not limited to land use, climate change, agriculture, transportation, hazards, public facilities, health and safety, environmental justice, and resource conservation out to the year 2040. The County, as the lead agency, has prepared an EIR in accordance with CEQA. The purpose of the notice of availability is to call attention to this EIR and to request that interested persons review and provide comments on significant environmental issues, mitigation measures, and range of reasonable alternatives addressed in the EIR. The 2040 General Plan is anticipated to be adopted in 2020. With implementation of the 2040 General Plan, development may occur on or near site(s) identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5.

SIGNIFICANT ENVIRONMENTAL EFFECTS: The Draft EIR has identified significant and unavoidable environmental impacts in the following resource areas.

- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural, Tribal Cultural, and Paleontological Resources
- Greenhouse Gas Emissions
- Hazards, Hazardous Materials, and Wildfire
- Mineral and Petroleum Resources

- Noise and Vibration
- Public Services and Recreation
- Transportation and Traffic
- Utilities

WHERE THE DRAFT EIR IS AVAILABLE: The Draft EIR and supporting documents are available for public review at the following locations:

- 2040 General Plan Update webpage at <https://vc2040.org/>;
- The Planning Division website at <http://vcrma.org/divisions/planning> (select “CEQA Environmental Review”); and
- County of Ventura, Resource Management Agency, Planning Division Public Counter, 3^d Floor, Hall of Administration, 800 S. Victoria Avenue, Ventura, CA, 93009, between the hours of 7:30 a.m. and 4:30 p.m., Monday through Friday.

Digital versions of the Draft EIR and supporting documents are available at the following libraries:

- Albert H. Soliz Library (2820 Jordan Street, Oxnard, CA 93036);
- Avenue Library (606 North Ventura Ave., Ventura, CA 93001);
- E.P. Foster Library (651 East Main St., Ventura, CA 93001);
- Fillmore Library (502 2nd St., Fillmore, CA 93015);
- Hill Road Library (1070 S. Hill Rd., Ventura, CA 93003);
- Meiners Oaks Library (114 North Padre Juan, Ojai, CA 93023);
- Oak Park Library (899 North Kanan Rd., Oak Park, CA 91377);
- Oak View Library (555 Mahoney Ave., Oak View, CA 93022);
- Ojai Library (111 East Ojai Ave., Ojai, CA 93023);
- Piru Library (3811 Center St., Piru, CA 93040);
- Ray D. Pruetter Library (510 Park Ave., Port Hueneme, CA 93041); and
- Saticoy Library (1292 Los Angeles Ave., Ventura CA 93004).

PUBLIC REVIEW AND COMMENT PERIOD: The 45-day public review and comment period during which the County will receive comments on the Draft EIR begins Monday, January 13, 2020 and ends at 5:00 p.m. on Thursday, February 27, 2020.

SEND COMMENTS TO:

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740

Or via email to: GeneralPlanUpdate@ventura.org

Please include your name or the name of a contact person, your agency or organization (if applicable), and U.S. mail and email addresses.

By: Dave Ward, Director
Ventura County Planning Division



County of Ventura
Resource Management Agency, Planning Division
800 South Victoria Avenue, L #1740
Ventura, CA 93009

For more information, contact Susan Curtis by email or at (805) 654-2497.

Para más información póngase en contacto con Susan Curtis por correo electrónico o al (805) 654-2497.

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WATERSHED PROTECTION

MEMORANDUM

DATE: February 27, 2020

TO: Susan Curtis, Manager, General Plan Update Section

FROM: James Maxwell, Groundwater Specialist 

SUBJECT: Ventura County Public Works Agency, Water Resources Division (VCWRD) Response, Draft Environmental Impact Report (DEIR), Ventura County 2040 General Plan

VCWRD reviewed the DEIR and supporting documents (Appendix B, Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020) submitted by the County of Ventura. VCWRD does not have any comments regarding the DEIR. Relevant updates and comments have been made to Chapter 10 (Water Resources) of the Background Report.



Ventura County
2040
GENERAL PLAN



Chapter 10

Water Resources

10 WATER RESOURCES

INTRODUCTION

This chapter assesses various water resources and water resource issues in Ventura County and provides guidance in the following sections:

- Resources Assessment Major Findings (Section 10.1)
- Land Regulatory Framework for Water Management (Section 10.2)
- Land Regulatory Framework (Section 10.3)
- Existing Conditions by Watershed (Section 10.4)
- Trends and Future Conditions (Section 10.5)
- Key Terms (Section 10.6)
- References (Section 10.7)

The origin of this chapter differs from the State Board of Agriculture Report because of the nature of its subject matter because the overall regulatory framework for water resources is largely understood through such resources as managed by the framework. This basic discussion in this chapter because water resources are somewhat of geographic existing conditions discussions are organized according to the County Watershed System aspect of the resource addressed at the sub-regional level of each watershed.

SECTION 10.1 RESOURCES ASSESSMENT MAJOR FINDINGS

Since a decade ago, water supply is a new and ongoing concern in Ventura County due to climate change and drought conditions, associated declines in surface flows and reservoir levels, increased use of seawater, groundwater contamination of groundwater, extensive pollution in the Ventura County, pollution of new groundwater wells, and reduced diversions of imported water. More than 8,500,000 gallons and 156 square miles of 0.2 acres of land in Ventura County experienced direct impact from the drought conditions beginning in 2012.

The water supply challenges are great and could potentially impact domestic residents, commercial/industrial, municipal businesses, agricultural, and the environmental resources of Ventura County without goal-oriented planning and implementation concerted action.

- o ~~Climate change poses major challenges for water supply. Climate change is a significant environmental issue that poses a threat to the availability of water. Climate change may compromise the efficiency of water supply methods and demand resources. Climate change will increase demand for water. Climate change will increase the need for water for irrigation. Climate change will increase the need for water for municipal use. Climate change will increase the need for water for industrial use. Climate change will increase the need for water for agricultural use. Climate change will increase the need for water for domestic use.~~

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Background Report

County of Ventura

~~Declines in surface water flow and reservoir levels in Western Ventura County~~
~~Report~~

o **Declines in surface water flow and reservoir levels in Western Ventura County.**

Western Ventura County's water resources have declined significantly since 2012. The decline is due to a combination of factors, including reduced precipitation, increased water demand, and the impact of climate change. The decline in water flow is particularly concerning for the agricultural and residential sectors. The decline in reservoir levels is also a cause for concern, as it reduces the county's ability to store water for use during dry periods. The decline in water flow and reservoir levels is a result of a combination of factors, including reduced precipitation, increased water demand, and the impact of climate change. The decline in water flow is particularly concerning for the agricultural and residential sectors. The decline in reservoir levels is also a cause for concern, as it reduces the county's ability to store water for use during dry periods.

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Commented [MJ1]: Keep this change discussion in the City & County Change Charter

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o **Drought has significantly affected local water supplies.** More than 8,500 residents and 156 square miles of agricultural land in Ventura County experienced a water shortage from the beginning of 2012.

There are inadequate water supplies to meet future demands in some areas of the county. Developing new water projects and securing funding for water infrastructure are critical to ensuring that the county has sufficient water supplies to meet future demands. Some of the new water projects being considered include the development of water storage facilities, the construction of new water treatment plants, and the implementation of water conservation programs. The county is also exploring the possibility of desalination as a source of water. The county is also exploring the possibility of desalination as a source of water.

o **Overdrafted groundwater basins in the county are experiencing overdraft conditions.**

Groundwater is the most important source of water in the County, and is being used at a rate that is unsustainable. The County Department of Water Resources (DWR) has identified the following groundwater basins in Ventura County as being overdrafted:

- Cuyama Valley Basin (DWR RB 0913)
- Oxnard Subbasin (DWR RB 09042)
- Pasadena Valley Basin (DWR RB 0906)

The Cuyama Valley Basin is a critical source of water for the County, and is being used at a rate that is unsustainable. The County Department of Water Resources (DWR) has identified the following groundwater basins in Ventura County as being overdrafted:

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Water Resources

2040 General Plan These basins serve both urban populations and agriculture. In A 2014 project ground water rules by the Fox Canyon Groundwater Management Agency passed Emergency Ordinance E with and reduced extensions in many of the ground water basins in the Ventura County with December 2014 the Ventura County Board of Supervisors approved and adopted Ordinance 4468 with the new water

10

¹ A study of the Ventura County Groundwater Management Agency basins is being conducted to determine the condition of present water management practices would result in and versus over time environmental and economic impacts such as persistence of ground water yield of wells in areas ground water recharge in the region of water quality and sustainability of water systems and des.

well-identified boundary in the unincorporated County of the major groundwater basins. These policies will be removed in the Groundwater Sustainability Agencies (GSAs) are formed and have completed Groundwater Sustainability Plans (GSPs) per the Sustainable Groundwater Management Act (SGMA). Implementation of SGMA in the Sustainable Groundwater Management Act will require an assessment of the condition of groundwater basins, conditions and management of groundwater and implementation of groundwater recharge projects to achieve long-term sustainability.

- **Variability in deliveries of imported water.** A proximal 7.5% decrease of Ventura County residents receive imported water from C.M.W. Delta-Munich Water District. Imported water volume is the amount of imported water depending on seasonal conditions, regulatory restrictions on SWP export conditions, water cost, and regional demands. The DWR California Department of Water Resources prepares annual public evaluation of imported water from the State Water Project. The most recent public 2017-2018 State Water Project Delivery Cycle Report states that extreme seasonal imported water system-wide winter water availability years and groundwater recharge water availability during the drought years decreased and increased average annual delivery of water since the 2015 Report.
- **Water resources dedicated to environmental purposes may change.** State and federal agency guidelines require that the amount of exported SWP water must remain available for end-user species and habitat management of water resources. Water availability requirements and diversions will be updated by the management of flow to put an reservoir of water equipment to provide increased instream flows could further diversify water availability and diversions.
- **There are insufficient adequate water supplies to meet future County demands in some areas of the county.** Dewatering new water projects and equipment is a significant challenge for managing and securing future environment water projects and construction. Some of the new water projects are being considered in the advanced management of water for use as a public water supply and the development of local groundwater and ocean desalination. Funding in the delivery of SWP State Water Project equipment are being considered. In addition, water conservation measures are being implemented in the county and state agencies are doing so to increase efficiency. These efforts will need to continue and be sustained.

▪ **Shift toward Integrated Regional Watershed Management (IRWM).** In the past, the development of the water systems were managed independently from each other. Groundwater was managed as a separate resource from surface water and separated from each other. There has been a shift in water resources management and regulation toward watershed-based approaches. This shift in water resources management and regulation toward watershed-based approaches are significant in many facets of water resources management and groundwater management. Management of ecosystem health and ecosystem health is enhanced collaboration across geographic jurisdictions and diverse stakeholders groups.

* **Water supplies dedicated to environmental purposes may change.** State and federal equipment that the amount of water available for end-user species and habitat management of water resources and equipment to provide increased instream flows could

Background Report

County of Ventura

~~for the use of water in agricultural and domestic~~

- **There is great diversity in the size, source, and organization of water suppliers in Ventura County.** Many areas are served by private wellhead surface water diversions. Other areas are served by municipal water companies, private water districts, and various water agencies. There are more than 162 water suppliers in the county.

- Land development Water supply and demand for land developments significantly affects demand and supply.** The type of land use and development projects creates demand and demand for water. The type and volume of water needed for development will require a different water treatment and distribution system. Water used by sewer systems is collected and can be treated and used as a secondary recycled water. A groundwater system may be able to provide an recycled water and a portion of water in groundwater systems.
- Impacts from Urban land development can impact water quality resources.** Land development can impact water quality; however, the implementation of best management practices and conservation practices can be employed to avoid and lessen potential urban impacts. Land development commonly increases impervious surfaces, which increases the amount of runoff volume and stormwater pollutants. As stormwater runoff over impervious surfaces has no porous way and infiltrates into non-accumulated sediment, nutrients and sediment. Stormwater is typically conveyed through ditches, channels, pipes, ditches, and to the ocean, which may impact development and impact flood plains, increases the risk of flooding, and decreases the ability to manage stormwater. Development in flood plains may impact groundwater recharge basins through runoff and may reduce groundwater recharge. Land development uses other point sources of pollution including discharges from sewerage treatment plants, individual septic tanks, community wastewater treatment systems, and industrial sites.
- Impacts from Agriculture land development can impact water quality resources.** Soil disturbance and subsequent erosion of fields changes the runoff and infiltration characteristics of the ground surface, which affects percolation to the surface and recharge of groundwater. This also increases erosion and resulting sediment deposition on the surface water bodies. Changes in infiltration affect the amount of groundwater surface water.
- Poor water quality limitations to beneficial uses of water.** Decreased water quality limits the ability of water bodies to support beneficial uses such as agricultural production, fisheries, and wildlife. Poor water quality also limits the use of the water for as a water supply and may increase the treatment costs.
- Development impacts to affect natural hydrologic processes.** Some development can alter topography and surface geology. Removal of natural vegetation and mammal structures such as dunes and dunes structures disrupts hydrologic processes such as sediment transport, deposition, groundwater recharge. These changes alter watershed watersheds and ecosystems and the ecosystem characteristics needed by fish and wildlife.

Commented [MJ2]: This paragraph is a summary of the individual types of development below.

SECTION 10.2 LEGAL AND REGULATORY FRAMEWORK FOR WATER MANAGEMENT

The framework for water management framework of the Ventura County is complex and reflects the network of laws, rules, and regulations governing California water. Many laws and many decisions influence water planning. (Table 10-1) Table 10-1 provides a legal and regulatory overview. A detailed list of laws, rules, and regulations which influence water planning is summarized on the following pages.

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**TABLE 10-1
FRAMEWORK FOR WATER MANAGEMENT**

| Statute, Code, or Authority | Relationship to Water Management |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| State of California Constitution, Article X, Section 2 | Requires that all entities in the State use water in a beneficial manner and prohibits unreasonable use and water waste. |
| State of California Riparian Water Rights | Allows owners of land on a stream to divert and use a portion of the flow. |
| State of California Appropriative Water Rights | The right to divert, store, and use water on any land, provided the use is reasonable and does not harm earlier appropriators. Appropriative rights are managed by the State Water Resources Control Board. |
| State of California Water Commission Act | Established a system of State-issued permits and licenses to appropriate water. |
| Federal Endangered Species Act | Designed to protect endangered and threatened species and promote species recovery. Requires that federal agencies consult with the US Fish and Wildlife Service and the National Marine Fisheries Service to ensure that federal actions do not jeopardize endangered or threatened species or their habitat. |
| National Environmental Policy Act | Requires federal agencies to conduct an environmental review for federal actions that may affect the environment; encourages implementation of mitigation measures to avoid impacts. |
| State of California Endangered Species Act | Designed to protect endangered and threatened species and promote species recovery. Requires that state and local agencies consult with the California Fish and Wildlife Service to ensure that their actions do not jeopardize endangered or threatened species or their habitat. |
| California Environmental Quality Act (CEQA) | Requires state and local governments to evaluate environmental effects and find ways to mitigate effects where feasible, prior to approving projects. |
| State of California Porter-Cologne Water Quality Control Act | This is a water quality control law and regulatory program to protect water quality and beneficial use of the State’s water. This act allows regulation of discharges to water. |
| Federal Clean Water Act | Requires permits for the discharge of pollutants to waters of the United States from any point source. See additional detail below. |
| Federal and State Safe Drinking Water Act | Under this law, federal and state agencies set and enforce standards for drinking water quality. |
| State of California Regional and Local Water Agency Formation enabling acts | Guides the formation of districts for controlling, conserving, managing, and distributing water. |
| State of California Urban Water Management Planning (UWMP) Act | Requires urban water suppliers to conduct regular comparisons of supplies and demands. (See additional detail below.) Within the UWMP, water suppliers must include, to the extent practicable, information on the water quality of existing sources and the manner in which water |

**TABLE 10-1
FRAMEWORK FOR WATER MANAGEMENT**

| Statute, Code, or Authority | Relationship to Water Management |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | quality affects supply reliability. Based on the UWMP, water suppliers explore enhancing basic supplies from traditional sources such as the State Water Project (SWP) as well as other options. These include groundwater extraction, water exchanges and transfers, water conservation, recycling, brackish water desalination and water banking/conjunctive use. Each option will involve evaluations of how it would: (1) fit into the overall supply/demand framework; (2) impact the environment; and (3) affect customers. The objective of these more detailed evaluations would be to find the optimum mix of conservation and supply programs that ensure customers' needs are met. |
| State of California Agricultural Water Management Act | Senate Bill X7-7, the Water Conservation Act of 2009 (SB X7-7), requires agricultural water suppliers who provide water to more than 25,000 irrigated acres (excluding acreage irrigated by recycled water) to adopt and submit Agricultural Water Management Plans (AWMP) to DWR and to implement Efficient Water Management Practices, including the measurement and volumetric pricing of water deliveries. Within Ventura County, Casitas Municipal Water District, Camrosa Water District, and Ventura County Waterworks District No. 1 prepared AWMPs in 2015. |
| State of California Water Conservation in Landscaping Act | Requires specific water efficiencies for landscapes in new or redevelopment projects. |
| State of California Energy Commission Title 20 | Sets standards for toilets, urinals, faucets, and showerheads. The appliance standards dictate what can be sold in California and impact new construction and replacement fixtures in existing homes. |
| State of California CAL Green Building Code | Requires residential and non-residential water efficiency and conservation measures for new structures that will reduce the overall potable water use by 20 percent. Water savings can be achieved by installing plumbing fixtures and fittings that meet the 20 percent reduced flow rate specified in the CAL Green Code, or by other measures that meet the reduction standard. |
| State of California Sustainable Groundwater Management Act | Requires entities using water from groundwater basins designated as high or medium priority by the Department of Water Resources to assess the condition of groundwater basins and to develop a framework for long-term sustainability through demand management and groundwater recharge activities. (See additional discussion on the Sustainable Groundwater Management Act further in this Section below.) |
| <u>State of California Class II Underground Injection Control Program</u> | <u>Regulation of wells used to inject fluids associated with oil and natural gas production. The purpose of the regulation is to ensure fluids associated with oil and gas production are not introduced into drinking water sources. (See additional details below.)</u> |

**TABLE 10-1
FRAMEWORK FOR WATER MANAGEMENT**

| Statute, Code, or Authority | Relationship to Water Management |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| State of California Permitting of Water Systems | Regulates the formation of new public water systems by the State Water Resources Control Board. (See additional detail below.) |
| County of Ventura General Plan Goals, Policies and Programs | Complies with Section 65300 of the California Government Code which requires that, "Each planning agency shall prepare and the legislative body of each county and city shall adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning." |
| County of Ventura Subdivision Ordinance | Regulates and control subdivisions of land and in conjunction implements the County's General Plan. (See additional detail below.) |
| County of Ventura Coastal Zone Ordinance | Regulates all proposed development in the Coastal Zone of Ventura County. (See additional detail below.) |
| County of Ventura Non-Coastal Zone Ordinance | Regulates all proposed development in the Non-Coastal Zone of Ventura County. (See additional detail below.) |
| Ventura County Groundwater Conservation Ordinance | Regulates construction, maintenance, operation, use, repair, modification, and destruction of groundwater wells. (See additional detail below.) |
| County of Ventura Landscape Design Criteria | Requires approval of a landscape plan for new and modified developments. Limits the plant types and plant pallets so as to conserve water; and requires minimum irrigation efficiency. |
| State of California Propositions 50, 84, and 1 | Grant funding to encourage regional integrated planning of water resources. (See additional detail below.) |
| State of California Non-potable Water Reuse Systems-Chapter 15 of the California Plumbing Code (CPC) (as of 2017) | Allows for use of non-potable water (i.e., graywater), which includes wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs. Requires a plumbing permit from the County of Ventura Resource Management Agency, Building and Safety Division. |

Urban Water Management Plan Act (State)

State requires that every city or county with a population of 100,000 or more must develop and update every five years or when there are significant changes in its population. The Urban Water Management Plan (UWMP) is a planning document that guides the management of water supply, distribution, and use. The plan is intended to be updated by the local government. For example, the Legislature made the Plan a local government responsibility.

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Water Management Plan A California Section 10630(d) The definition of such... and the action of these... in agency... and the action of these... in agency... and the action of these... in agency...

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"A plan intended to fulfill a public purpose... management of water... 2010) 189 C.A. 3339 should not be viewed as an... management... change in response to a number of factors... observed... process... From... U.W.M.P. as a general framework... in an effort to provide answers to the questions...

- What are the purposes of such plan and while possible avoid from them?
What are the potential demand given a certain set of assumptions about growth and implementation of good water management practices?
How well do such plan and demand framework match up with the various potential such plans while pursued by the implementing agency?

Using the framework questions and resulting answers... the implementing agency will use feedback and conflicting opinions and opportunities to meet demands.

Based on the U.W.M.P. water supply expansion... SW... These include groundwater extraction, water changes and infrastructure conservation... Specific planning effort will be undertaken... and how each option would affect outcomes. The objective of these... would be to find the optimum mix of conservation and supply programs that balance water demands with the needs of customers.

The Urban Water Management Plan Act requires... 60 days notice to any... of the county... The water permit... do provide notice when the Draft U.W.M.P. is available for review and comment upon completion of the U.W.M.P. copy of the plan must be provided to the applicant and used by the applicant.

Sustainable Groundwater Management Act (State)

In September 2014 the California Legislature enacted comprehensive legislation to manage California groundwater known as the Sustainable Groundwater Management Act (SGMA). The act provides a framework for sustainable management of groundwater by local agencies.

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Water Resources

2040 General Plan

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Class II Underground Injection Control Program (State)

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evaluation of certain UC wells December 2016.² Staff from the Water Board reviewed 657 UC wells determined by D-O-GGR C-DEM to be in violation of non-exempt rules. This evaluation included C-DEM UC wells in Ventura County UC wells were screened for proximity to water supply wells for any determination of risk of impact to drinking water and other beneficial uses.

Based on this screening, D-O-GGR C-DEM ordered the immediate shut of 23 UC wells one of which were in Ventura County. A shut well one which is capable of injection or production; but is not operating. A double Water Board issued 71 Information Orders to require additional information from operators of 256 UC wells no longer in Ventura County received an Order for UC wells which has been abandoned.

In addition to above UC regulations Public Resources Code Section 3106 requires D-O-GGR C-DEM while in the process to supervise the drilling, operation, maintenance, and abandonment of wells and the operation, maintenance, and removal or abandonment of tanks and facilities attendant to oil and gas production and designated pipelines, so as to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil and gas deposits from infiltrating water and other causes; loss of oil, gas, or reservoir energy, and damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of, detrimental substances.

The Department of the California Code of Regulations Title 14 Division 2 Chapter 4 Development and Conservation of Oil and Gas Resources includes several provisions with the goal of injection projects (injection wells). D-O-GGR C-DEM is the responsible agency for approving all underground injection and disposal projects before any surface injection or disposal can begin. This includes EPA Class II wells and injection wells that are exempt from the requirements of the National Underground Injection Control Act (42 U.S.C. 17240-17242, 17482, 17483) and standards for the shallow injection wells (including abandoned wells) (Section 1723). This includes C-DEM D-O-GGR rule requirements as necessary to prevent damage to the health and natural resources (Section 1954).

Clean Water Act (Federal)

The Clean Water Act ~~is amended~~, requires permit for discharge of pollutants of the United States. The Clean Water Act and the Pollution Control Act are responsible for the SW RC-B-E-S-W-R-Resources Control and the Regional Water Quality Control Boards in the Ventura County Regional Board site Los Angeles Regional Water Quality Control Board. The Los Angeles Regional Water Quality Control Board is a Regional Board site Los Angeles Board. The Los Angeles Regional Water Quality Control Board 2014. The Board is reviewed and updated every three years and ~~but~~ can be amended at any time. The Los Angeles Regional Water Quality Control Board manages water quality based on "beneficial use" of water.

² The Staff evaluated "non-exempt" rules. The following federal statute must be met for a permit to be considered exempt cannot be achieved in any way so the rule to be a rule of drinking water injection must not impact or create a beneficial use of injection fields must maintain the proposed exempt area.

³ USEPA Region 9 and Southern Regions approved the D-O-GGR rule for exempt equipment of water in Ventura County.

1. **Municipal and Domestic Supply (MUN).**

Uses of water for community and individual users through public utility systems such as drinking water supply.

2. **Agricultural Supply (AGR).** Uses of water

for farming and ranching such as irrigation, stock watering and profit vegetation for range grazing.

3. **Industrial Process Supply (PROC).** Uses

of water for industrial processes such as pulp and paper mills.

4. **Industrial Service Supply (IND).** Uses of

water for industrial processes such as power generation, cooling, and other industrial processes such as food processing, chemical manufacturing, and other industrial processes.

5. **Ground Water Recharge (GWR).** Uses of

water for the recharge of groundwater resources for future extraction and use for municipal, industrial, and agricultural purposes.

6. **Freshwater Replenishment (FRSH).** Uses

of water for the replenishment of surface water resources such as rivers and streams.

7. **Navigation (NAV).** Uses of water for

shipping and navigation by private and commercial vessels.

8. **Hydropower Generation (POW).** Uses of

water for hydroelectric power generation.

9. **Water Contact Recreation (REC-1).** Uses

of water for recreational activities involving body contact with water where the degree of water exposure is not intended to be significant such as swimming, wading, fishing, and scuba diving.

such as water skiing and use of natural springs.

10. **Non-contact Water Recreation (REC-2).**

Uses of water for recreational activities involving proximity to water but not necessarily involving body contact with water where the degree of water exposure is not intended to be significant such as beachcombing, angling, fishing, and other recreational activities such as boating, water skiing, and other recreational activities.

11. **Marine Habitat (MAR).** Uses of water

to maintain ecosystemic diversity through protection and enhancement of marine habitats such as coral reefs, fish and wildlife, and marine mammals.

12. **Wildlife Habitat (WILD).** Uses of water

to protect ecosystemic diversity through protection and enhancement of freshwater, wetland, and riparian habitats, and other wildlife and riparian habitats.

13. **Commercial and Sport Fishing (COMM).**

Uses of water for commercial and recreational fishing and other commercial and recreational fishing activities.

14. **Aquaculture (AQUA).** Uses of water for

aquaculture and other aquaculture activities such as fish farming, shellfish farming, and other aquaculture activities.

15. **Warm Freshwater Habitat (WARM).**

Uses of water to maintain warm water ecosystemic diversity through protection and enhancement of aquatic

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16. **Cold Freshwater Habitat (COLD).** Uses of wātisu pūcal wārecosystems nict digbu nōitid tpe se vōn or enhncement of aqu d hāive gain, firvilit nict digive et bas.
17. **Inland Saline Water Habitat (SAL)** Uses of wātisu pūthid sāt wār ecosystem s nict digbu nōitid tpe se vōn or enhncement of aqu d sāt hāive gain firvilit, nict digive et bas.
18. **Estuarine Habitat (EST).** Uses of wār hāive pūte sāt ecosystem s nict dig bu nōitid tpe se vōn or enhncement of est sāt hāive gain firvilit tpe est sāt māmā vā fōw s tōe tūl s).
19. **Wetland Habitat (WET).** Uses of wār hāive pūte wēhd ecosystem s nict dig bu nōitid tpe se vōn or enhncement of wēhd hāive gain firvilit and dē rē nī qē wēhd fū nōis wāth enhnc wā rē qū sū chā pūvōlīg fōd and ē rōn cōntē n bānk sāt nā d ān d pū fī rōn of nā tīl.
20. **Preservation of Biological Habitats (BIOL)** Uses of wātisu pū t
- design d ē sō n hāive chā A ē s of Spē d B tō d Sīgnā tī n cē A S B S) ē sātē d tē fū gē s sāt nō tī s, ē cō d gē sē vō sō d tē rē s wē hē tē pē sē vō n or enhncement of nā tī rē sō u rē s ē qū tī s spē cī tō n.
21. **Rare, Threatened, or Endangered Species (RARE).** Uses of wātisu pū t nē cē s sāt sāt pū tē sū rī vā d ān d sū cē s sū fū sī mā nē n cē of pū tō r ā n d sē cī s ē sātē d u n d ē r s tō r fē d ē rā v ā rē tē nē d or ē n d ā gē d .
22. **Migration of Aquatic Organisms (MIGR).** Uses of wātisu pū t nē cē s sāt fō r mī g r ā tī n bē t wē n fī sh ān d sī vā tō rē tē m pō r y ā n tī s b y ā n tī g r ā m sū chā ā n d tō mō u s fī h.
23. **Spawning, Reproduction, and/or Early Development (SPWN).** Uses of wātisu pū t nē cē s sāt fō r ē p r d u c tī n ā n d ē r l y d ē vē lō p mē n t of fī h.
24. **Shellfish Harvesting (SHELL).** Uses of wātisu pū t nē cē s sāt fō r ē cō lē c tī n of fī ē dī g s hē ll fī g cō n sō y s tē m s (mū s sē l) fō r hū m ā n cō n sū m p tī n cō m mē r cī s pū t pū pō sē s.

To p r e c h e s e b e n e fī t s ē s t e L ~~A - c s - A - n g d s - R W~~ Q C B h s m ā y ē g d y p r o g m s o ē d u c e pū l ā n tū r e nī s tō m wā r ē v ā e wā r nī tū d tū nō f f , ā n d rē c y c l d wā r

L ~~A - c s - A - n g d s - R W~~ Q C B ē g d s dī chē s f r o m m ā y c ā s e s of mū nī p tō m wā r s y s tē m s hō u g h ā p mī g r o m . T h e V e n t u r e C o u n t y W ā s h e d P r e cī n Dī f C o u n t y of V e n t u r e h e dī s of C a n tī l e o e M c o p t (Q) x n d P o f H u e n e m e V e n t u r e s ā n d sī nī V dī y ā n d T h r o u s ā n d O d s ā e n ā m e d ā c o p tī e s u n d ē r ā c o u n t y w d e mū nī p tō n ā n d P dī ā n t Dī chē gē Eī tī nī n S y s tē m N P D E S) p r m f o r s tō m wā r dī chē s sī s u ē d b y t h e R ~~W - ā r Q - tū l C - e n d B - c d~~ . T h e c o p tī e s ā ē r e q uī d tō ā l mī nī m p mē n t ē n f o r c e ā S tō m wā r Q uī l M ā g e mē n t P r o g m . T h e g r ā d mī nī z e nī nō f f pū l kī n t y pī c ā s e d b y ā d d ē vē lō p mē n t ā n d tō p r e c h e b e n e fī t s ē s of rē cē vī n g wā r s b y nī tī g ~~ē f f e c t e~~ - ī n p e r sō u s ē ā d nō mō r e hū m ā n lī f e p r e n t of t h e p r o j e c t ā n d rē gī s tō m wā r o n ā t . T h e c o p tī e s ē q uī t

“Site Design Principles and Techniques; Source Control Measures; Retention Management Practices; BMPs; Best Management Practices; Treatment Control Measures; and new development and redevelopment projects.

Water from water treatment plants is regulated through water discharge permits (referred to as Water Discharge Requirements (WDRs)). Through permit process the RWQCB regulates the permittees; and specific content in discharges of C from coastal surface waters; and groundwater.

In 2011 the L.A. County RWQCB adopted a Conditional Water Discharge Requirement for Discharges from Landfills and Leachate from Landfills. The Conditional Water Discharge Requirement is a permit requirement for the owners of landfills and solid waste management facilities and their subsidiaries and agents. The permittees are required to implement BMPs to reduce the quantity of leachate and stormwater runoff for the purpose of minimizing discharges, which may include sediment, and other pollutants from each surface water. The Conditional Water Discharge Requirement is a discharge response of the Conditional Water Discharge Requirement of the Conditional Water Discharge Requirement (CWD) (which serves as a discharge response permit) and owners and growers who are part of the Conditional Water Discharge Requirement program on behalf of V.C.A.L.G. members.

By the San Water Resources Control Board (SWRCB) and RWQCB signed a permit agreement to operate and maintain these permits and the type of treatment and effluent requirements and ongoing water quality monitoring and regulation and manner of recycled water. The San Water Resources Control Board's 2009 Recycled Water Program amended in 2013 requires groundwater recharge recycled water facilities discharges in various ways, which change can be managed by State Nutrient Management Plans. The purpose of a State Nutrient Management Plan is to optimize recycled water use while ensuring protection of groundwater quality and beneficial uses and human health. State Nutrient Management Plans are submitted to the RWQCB, which can require the permittees to submit and the RWQCB requires recycled water and wastewater discharges to operate in a manner consistent with the permit management plan.

The Clean Water Act's national design mechanism called the Total Maximum Daily Load (TMDL) program. TMDL is specific to a pollutant (chemical or physical) and aspect of water body. A TMDL is a limit of "pollution budget" and is a calculation of the maximum amount of a pollutant that can occur in a water body and meet water quality standards so as to protect beneficial uses. The TMDL should be necessary to ensure one or more pollutants. TMDLs can force the implementation of BMPs to reduce pollution and the discharge of pollutants in water bodies. The following TMDLs are in place:

- Ventura River Watershed
 - Agriculture Control and Nutrients
 - Trash
- San Joaquin River Watershed
 - Bacteria
 - Chloride
- Colorado River Watershed

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- Metal
- Salt
- Trash
- Toxic
- Toxic Hazardous Pesticides
- Nitrogen

Under section 30.31 of the Clean Water Act, states and tribes are to develop a water quality plan that is based on the best available science and technology. The 30.31(a) LSA is used to develop TMDLs and are used to identify the mechanisms to improve water quality. Several water quality criteria are outlined in section 30.31(a) LSA for CWA SW RC B (2016).

Permitting of Public Water Systems

The SWRCB (Sanitary Water Resources Control Board) Division of Drinking Water and DWS (Division of Drinking Water and Distribution) oversees the permitting of public water systems. On September 29, 2016, Governor Brown approved Senate Bill 1263 to prevent the formation of small public water systems. This bill requires a person submitting an application for a proposed new public water system to first submit a preliminary engineering report to the SWRCB. The bill also requires the applicant to conduct a feasibility study and a preliminary engineering report. The bill also requires the applicant to provide an adequate and reliable supply of domestic water service to the proposed new public water system. The SWRCB determines the feasibility of the service to the proposed public water system to be served by one or more existing public water systems and the feasibility of providing the proposed new public water system with a reliable source of drinking water. The bill also requires the applicant to provide a detailed description of the proposed public water system.

County of Ventura Role in Water Management

The County of Ventura has a role in water management. Through the General Public Works and Programs Subdivision and Zoning Ordinances and Building Code of the County of Ventura, conditions development ensure adequate water supply of water supply and protection of ground water and surface water quality. Through the Land and Scenic Design Code of Ventura County, requirements for water distribution projects use of existing water facilities and water efficiency in home equipment. Per the authority of the Flood Management Ordinance of the County of Ventura, prohibited uses and activities which may be dangerous to health and property due to modification or obstruction of flood water control of water course.

The County of Ventura also oversees projects managed by water resources, which include but are not limited to groundwater recharge, stormwater management, and wells and flood control. The County of Ventura is responsible for the operation and maintenance of several water resources. For example, the County of Ventura maintains a network of flood control and groundwater recharge and inspect groundwater wells and groundwater recharge.

County of Ventura General Plan Goals, Policies and Programs

The General Plan 2005 Goals and Programs (GP) include the following water resources and programs:

- ERD eN of A eaP dr;
- N chV em nA venue A eaP dr;
- O kP akA eaP dr;
- O gV dly A eaP dr;
- P n A eaP dr;
- S aroy A eaP dr;
- Thous nd O ks A eaP dr and
- L ke Sherwood H d den V dly A eaP dr.

County of Ventura Ordinances

Subdivision Ordinance

The County of Ventura Subdivision Ordinance and its amendments implement the "intent" of the Ordinance which is to provide for the adequate provision of water to all subdivisions in the County of Ventura.

Provisions to ensure adequate provision of water:

- Section 8.20.3 and Section 8.20.6A require a description of the method and plan for providing permanent on-site water supply to be provided by a public water system. In areas where ground waters have been determined to be inadequate, a permanent on-site water supply for each lot for a period of at least 60 years. A firm approved development not being served by a public water supply shall not be permitted until a binding agreement has been entered into between the owner of the lot and the water provider to the firm supply agreed upon by the owner and the water provider.

⁴ A water supply system as defined in § 8.20.3 of the Ventura County Subdivision Ordinance which requires the proposed water system of a subdivision to be a public water supply system is defined in § 15 of the Ventura County Water Management Act which still remains in effect.

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The water supply system consists of the quaternary aquifers of the 22 of the Central Code of Regulations and the new development within the water supply area. The water system will comply with the 22 and the fact of the water supply system will be able to serve the proposed subdivision to exceed the equipment of the County of Ventura Improvement Standards and Specifications.

- Section 8 2047: Requirements never proposed subdivision and within boundaries of a public agency will not provide water service to the public water agency shall be chosen as the water provider for the proposed subdivision.
- Section 8 2058: Requirements for water supply and sewerage provisions (Public Commission hearing on subdivision when a site map and final map required)
- Section 8 2072: Provisions of a final map or a preliminary map as may be specified in the subdivision or the subdivision improvement agreement complete specific improvement and permanent water supply.

Provisions to protect surface and groundwater quality:

- Section 8 2032: Requirements for existing and proposed water wells defined on the map.
- Section 8 2033: Requirements for hydrology and hydraulic study by subdivision within the map and the following conditions before and after proposed development of the subdivision: drainage easement, water supply and storm water drainage and collection systems.
- Section 8 2033: Requirements for the proposed method and proposed sewerage disposal for each proposed lot.
- Section 8 2045: Design of a subdivision shall conform to the County of Ventura Flood Plain Management Ordinance and shall provide for the proper design of the improvement based on the information acquired from the development of the watershed in accordance with the General Plan for the technical drainage and sewerage design and construction in a manner to minimize potential damage to any concerns or increases of surface water resulting from the development of the subdivision must be conveyed by means of adequate facilities and shall not divert or seep into the area.
- Section 8 2072: Provisions of a final map or a preliminary map as may be specified in the subdivision or the subdivision improvement agreement complete specific improvement and permanent improvement for drainage and erosion control for the proposed subdivision regardless of technical drainage improvement necessary to prevent damage to other property, sewerage and permanent water supply systems shall be installed in each proposed subdivision and connections to be made from each subdivision to the bonded water well within the proposed subdivision shall be destroyed or be subject to a certificate of Exemption in compliance with the County of Ventura Code.
- Section 8 2095A: A condition of approval for any subdivision within the map for which the subdivision is not complete within 30 days of the date of any public hearing or sewerage

for a public utility sewerage the subdivision may be required to pay fees or...
consideration hereof for the purpose of defraying the direct and indirect cost of...
construction of sewerage facilities for the removal of surface and storm waters from the...
neighborhood drainage areas and of construction of sewerage facilities

Commented [MJ4]: We need to see these analyzed.

Coastal Zone and Non-Coastal Zone Ordinances

The County of Ventura Coastal Zone Ordinance (CZO) regulates proposed development in the...
Coastal Zone of Ventura County as outside of this zone as regulated by the Non-Coastal Zone...
Ordinance (NCZO). Many of the provisions of the CZO and the NCZO are similar...
to those in the Subdivision Map Act. Through provisions different from...
proposed and use general these ordinances require:

- Obtain a permit for zoning ordinance (a) construction of a public sewerage system (b) construction of a...
water well and (c) construction of a...
water storage and distribution system.
• A-100 to 300 foot setback from water channels and pollution sources - obstruction of drainage courses.
• Development to be undertaken in accordance with conditions and requirements established by the...
Ventura County Stormwater Quality Management Program and the Ventura Stormwater Quality...
Management Ordinance No. 4142 and as these permits and regulations may be amended.
- Construction of a public sewerage system or a public sewerage system...
permitted to be undertaken in accordance with any conditions and requirements...
established by the NPDES permit or other applicable laws and regulations...
related to the construction of a public sewerage system.
- Repair of a stormwater drain on a public or stormwater drain in a...
public or stormwater drain.
- General new development or development project affecting 500 square feet or...
greater in area - no construction of a stormwater quality design project...
for new development or project affecting 500 square feet or greater...
provided in the Ventura County Technical Guidance Manual for Stormwater Quality...
Control Measures.

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Commented [MJ5]: Note we need these maps to illustrate in a sentence.

Ventura County Watershed Protection Act

This act established the Ventura County Watershed Protection District...
Pursuant to the Act, the Watershed Protection District...
signed by the...
is...

provide for the flood control of flood and storm water control...

conserve surface waters for beneficial and use for purposes by creating...

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Background Report

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County of Ventura

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conservation in any manner that may be necessary to protect riparian resources from such flood damage and to prevent the loss of riparian resources and the destruction of riparian habitat.

- prevent the loss of riparian resources and the destruction of riparian habitat from such flood damage and the destruction of riparian habitat.

- obtain and maintain riparian flood and debris basins for the benefit of riparian resources.

- provide for the protection of riparian resources and the destruction of riparian habitat.

Under the Authority of the Watershed Protection District, the power is hereby granted to the District to

to acquire, purchase, lease, and otherwise obtain and enforce such corresponding regulations and conditions.

With the power hereby granted and conferred as a condition of development of land, the District

is authorized to acquire, purchase, lease, and otherwise obtain and enforce such corresponding

regulations and conditions for the protection of riparian resources and the destruction of riparian habitat.

County of Ventura Flood Plain Management Ordinance

This ordinance exists and is hereby adopted to protect riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

County of Ventura Building Code

Subject to the provisions of the Permitting and Inspection Code, the District is authorized to

to acquire, purchase, lease, and otherwise obtain and enforce such corresponding regulations and conditions.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

County of Ventura Groundwater Conservation Ordinance

The purpose of this ordinance is to protect riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

and to prevent the loss of riparian resources and the destruction of riparian habitat.

SECTION 10.3 INTEGRATED REGIONAL WATER MANAGEMENT

At the passage of Proposition 50 in 2002, the Integrated Regional Water Management (IRWM) became a new approach to forming water resources while passage of Proposition 50 in 2002. The approach... water resources management... and recreation enhanced... The Watershed Council of Ventura County (W-CVC) was formed as the IRWM... and seek innovative solutions among...

The 2014 W-CVC IRWM Plan Godac outlined as follows:

- Reduce dependence on imported water and protect and augment water supplies
Protect and improve water quality
Protect property and the environment from adverse flooding impacts
Protect and restore habitat ecosystems in watersheds
Provide water and recreation to access and management and educational opportunities
Prepare for and adapt to climate change

Commented [MJ6]: We can save this since it was added in the RW M Plan and 2019 update.

Grants funded under Proposition 50 (2002), Proposition 8 (2006) and Proposition 1 (2014) have developed decisions for project implementation. These funds helped communities... from flood damage... and effective problem solving opportunities... The W-CVC completed a 2019 amendment to the 2014 IRWM Plan which was deemed compliant by the DWR via Proposition 1 RW M Plan and its...

One example of an ongoing project funded through the IRWM Program via Proposition 8 4 grants is the National Flood Protection Program (NFPP) which is focused on preserving a... The Working Group developed the concept for creating farm-to-consumer farm in the flood plain... To date, almost 500 acres of flood plain within the Santa Clara River Watershed have been acquired through the National Flood Protection Program.

SECTION 10.4 EXISTING CONDITIONS

Ventura County covers approximately 18,733 square miles, of which 8,600 square miles, over half, are forested. The Los Padres National Forest, the county's largest agency-managed forest, covers 4,350,000 acres. The county's average annual precipitation is 45 inches, with an average summer precipitation of 18 inches and an average winter precipitation of 27 inches. The county's average annual precipitation is 45 inches, with an average summer precipitation of 18 inches and an average winter precipitation of 27 inches. The county's average annual precipitation is 45 inches, with an average summer precipitation of 18 inches and an average winter precipitation of 27 inches.

www.cdpr.ca.gov

The Regional Council of Governments (RCOG) for the Ventura River Watershed is the Ventura River Watershed Council (VRWC). The VRWC is a non-profit organization that provides technical assistance to local governments in the watershed. The VRWC was established in 1990 and has since then provided a wide range of services to its members. The VRWC's primary focus is on water quality and quantity issues, but it also provides assistance in other areas such as land use planning and public participation. The VRWC's website is www.vrwc.org.

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Ventura River Watershed

The Ventura River Watershed is located in the northwestern portion of Ventura County and drains approximately 228,000 acres (452,000 acres). The watershed extends 33 miles from the steep Transverse Ranges of the Santa Monica Mountains to the Pacific Ocean. The Ventura River Watershed is a major water source for the county and provides water for agriculture, industry, and municipal use. The Ventura River Watershed is a major water source for the county and provides water for agriculture, industry, and municipal use.

Periodically, the Ventura River Watershed experiences seasonal and annual variations in water availability. The watershed experiences a wide range of weather conditions, including drought, heavy rain, and snow. The watershed's water resources are managed by the Ventura River Watershed Council (VRWC) and the County of Ventura. The VRWC provides technical assistance to local governments in the watershed and manages the watershed's water resources.

The County of Ventura has designated the Ventura River Watershed as a municipal watershed. The County of Ventura has designated the Ventura River Watershed as a municipal watershed. The County of Ventura has designated the Ventura River Watershed as a municipal watershed.

- Federal National Forest 47.7%
- Undeveloped land 29%
- Agriculture 18.5%
- Urban uses 4.4% in the County of Ventura

Surface Water

The major surface water resource is the Matilija Reservoir, Lake Casitas, and Ventura River.

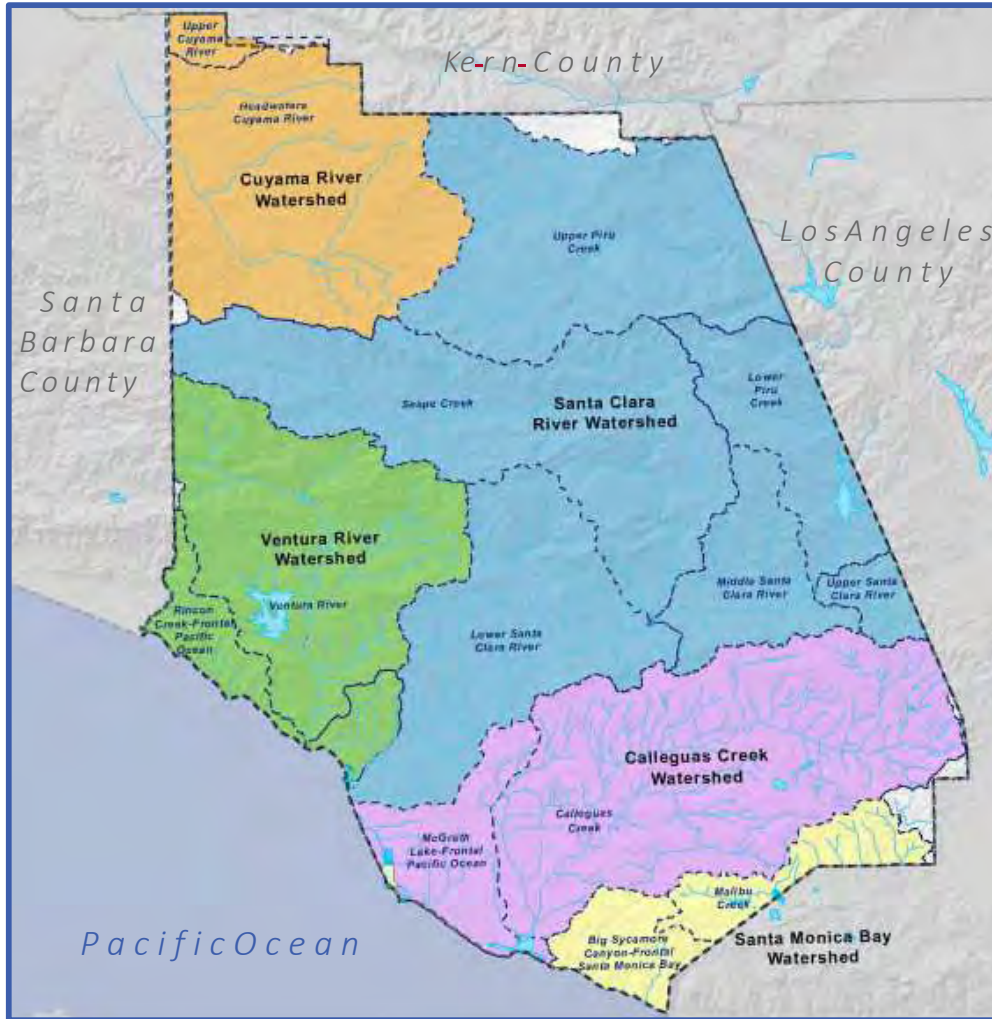
Matilija Reservoir Matilija Reservoir is the largest reservoir in the western United States. It was built in the 1940s for the purpose of providing water to the western United States. The reservoir provides water for 701,800 acres of agricultural land. The reservoir's storage capacity has been significantly reduced by sedimentation and snowmelt. It is estimated that only about 65,000 acre-feet of water are available for storage. The reservoir provides water for 701,800 acres of agricultural land. The reservoir's storage capacity has been significantly reduced by sedimentation and snowmelt. It is estimated that only about 65,000 acre-feet of water are available for storage. The reservoir provides water for 701,800 acres of agricultural land. The reservoir's storage capacity has been significantly reduced by sedimentation and snowmelt. It is estimated that only about 65,000 acre-feet of water are available for storage.

The fact is...

Lake Casitas Lake Casitas is a reservoir in the Ventura River watershed. It has a capacity of 250,000 acre-feet. The reservoir provides water for 701,800 acres of agricultural land. The reservoir's storage capacity has been significantly reduced by sedimentation and snowmelt. It is estimated that only about 65,000 acre-feet of water are available for storage. The reservoir provides water for 701,800 acres of agricultural land. The reservoir's storage capacity has been significantly reduced by sedimentation and snowmelt. It is estimated that only about 65,000 acre-feet of water are available for storage.

Ventura River The Ventura River is the largest river in the watershed. It flows from the mountains to the ocean. The river is a major source of water for the region.

- The segment above Roberts Division is the river's steep and narrow.
The segment below Roberts Division and above San Antonio Creek is the river's meandering and highly variable. The river's flow is highly variable and is affected by the flow of the San Antonio Creek. The river's flow is highly variable and is affected by the flow of the San Antonio Creek.



VENTURA COUNTY

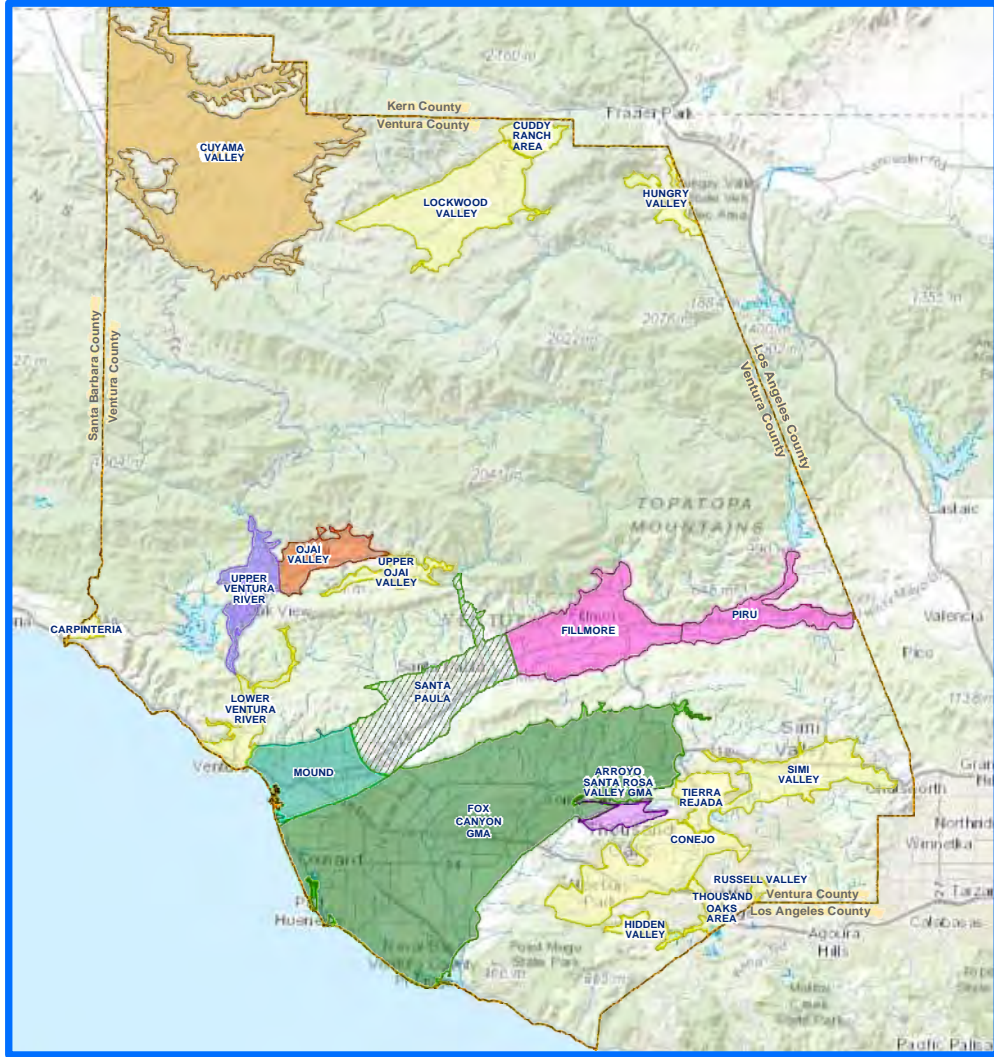
Figure 10-1: Ventura County Watersheds

Map Date: December 02, 2016
 Source: Kennedy/Jenks Consultants, 2016.

0 7.5 15 Miles

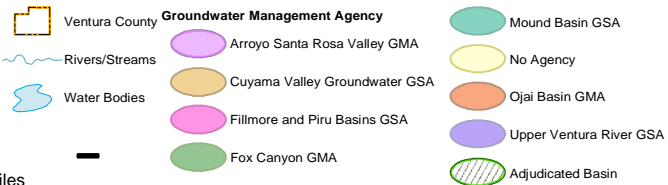
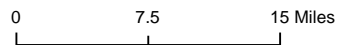
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| | |
|-------------------------|-----------------------------|
| Ventura County Boundary | Subwatersheds |
| Rivers/Streams | Calleguas Creek Watershed |
| Water Bodies | Cuyama River Watershed |
| | Santa Clara River Watershed |
| | Santa Monica Bay Watershed |
| | Ventura River Watershed |



**Figure 10-2:
Groundwater Basin Oversight**

Map Date: December 2017
Source: Kennedy/Jenks Consultants, 2017



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- San Antonio Creek only once at Foster Park in the irregular narrow San Antonio Creek entrenchment segment west of the point of the river can receive water from "down" groundwater where groundwater forced to the surface as a result of geologic conditions and down to an aquifer in the upper Ventura River basin. This is a typical flow year and except in the dry periods Ventura River Watershed Council (2015).
- Foster Park Ventura River Estuary is a shallowly flooded estuary from the Ojai Valley Sanitary District water treatment plant. The effluent is significant to river flow and local aquifer and several minor ditches. Many Canyon Creek and Saddle Mountain District do not include segment Ventura River Watershed Council (2015). The point of the river City of Ventura can divert surface water to surface channels and shallow wells. The well located at Foster Park is part of the Ojai Valley Sanitary District of discharge between 2010 and 2014 and produced by the City of Ventura from the Ventura River averaged 51 A.F.Y.
- The Ventura River Estuary is a shallow body of water where the Ventura River mixes with the daily seasonal and bay-pulse water from the estuary from the ocean when storms are able to send the flow of the river directly to the Pacific Ocean Ventura River Watershed Council (2015).

Groundwater

There are four major groundwater basins in the Ventura River Watershed: ~~the~~ Upper Ojai DWR Basin 4-001 Ojai Valley DWR Basin 4-002 Upper Ventura River DWR Basin 4-003 and Lower Ventura River DWR Basin 4-004 (see **Figure 10-2**). These are unconfined groundwater basins and fluctuate seasonally on seasonal conditions.

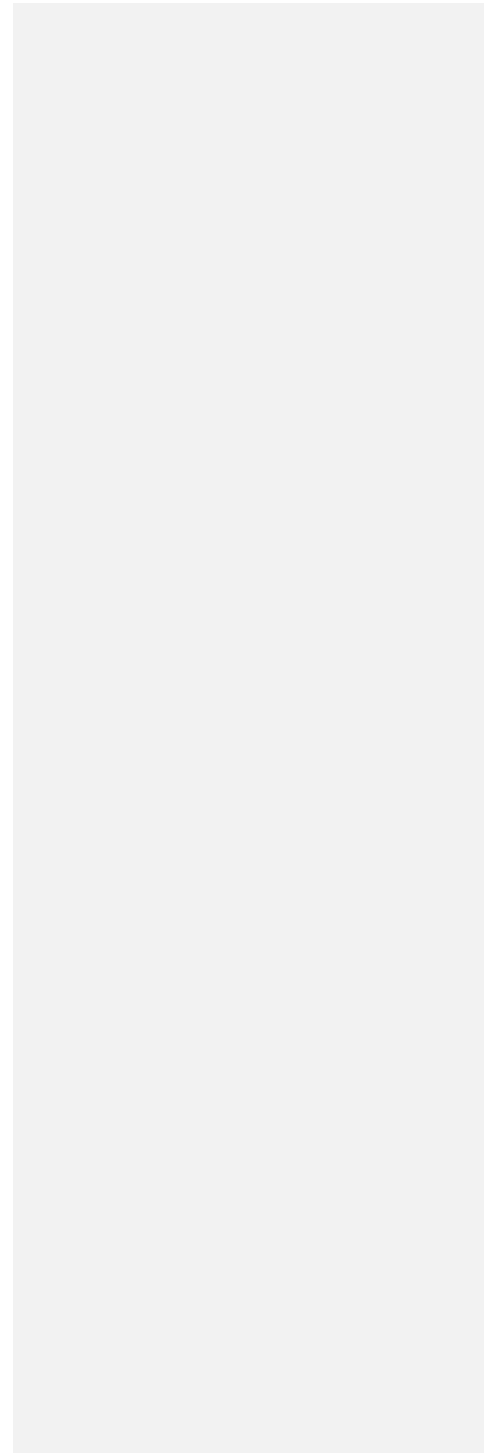
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In 2014 DWR Mined Criteria groundwater basins are "high medium low" or "very low" and this is based on the following:

- Overlapping population
- Projected growth of overlapping population
- Population density
- Total number of wells
- Land use and agriculture
- Reliance on groundwater as the primary source of water
- Impact on the groundwater and the overall balance in the watershed
- Other information determined to be relevant by Department of Water Resources

~~Highly accessible~~ Ojai Valley ~~groundwater~~ and Upper Ventura River ~~groundwater~~ basins were deemed ~~high~~ medium ~~high~~ ~~respected~~ basins. ~~Dependency on groundwater in these basins is a primary factor for the groundwater in these basins as a primary factor in the~~

The Ojai Valley ~~Groundwater~~ Basin is currently managed by the Ojai Basin Groundwater Management Agency (OB-GMA) and the agency will be ~~GSA groundwater sustainability~~ under SGMA. The OB-GMA has submitted an Application to the GSP which demonstrates the OB-GMA is already being successfully managed as part of the GSP.



California Department of Water Resources and the County of Ventura are in the process of forming a new groundwater sustainability agency for the Upper Ventura River Groundwater Basin.

Important Recharge Areas

The Ventura River watershed groundwater basins are typically recharged by precipitation. Recharge occurs while permeable unconsolidated deposits of gravel and sand are in stream channels and lakes.

In order to increase groundwater storage and recharge in the Ogilby Groundwater Basin, the Santa Ana North Speaking Grounds Recharge Project was completed by the Ventura County Watershed Protection District in 2014 and the proposed 2017 project will increase recharge on the basin by an average of 126 A-FY.

Other Water Supplies

The Ventura River watershed is currently not a non-potable water source. The City of Ventura and the County of Ventura are currently providing 100% of the water supply for the City of Ventura. However, there are no means of imported water in the watershed. However, the City of Ventura is evaluating options for delivery of those watersheds as of the end of 2017.

Water Quality

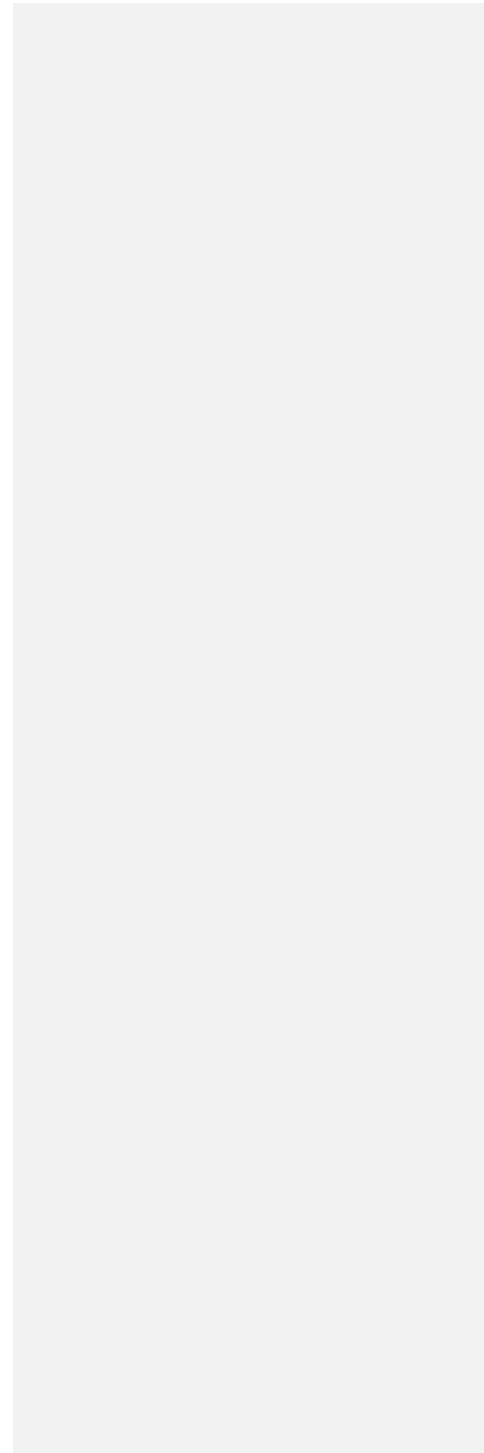
As described in Section 10.2 of the Los Angeles River-Qualicum Basin, the Ventura River watershed is shown in Table 10-2 from the Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties and provides detailed information for specific Ventura River reaches. The Los Angeles River-Qualicum Basin has developed programs and the TMDLs to protect these beneficial uses. The following TMDLs are in place for portions of the Ventura River watershed:

- The European Community in the Ventura River in the Escondido and San Luis TMDLs effective June 28, 2013
- Ventura River Escondido TMDL effective March 2008

In addition to existing TMDLs, other TMDLs may be developed as severe Ventura River watershed areas are identified in California (303(d)) listed impaired watersheds in the future. Ventura River and its associated fishbars and pumping and dissolved soils, and many other factors on the Ventura River watershed from impairment due to bacteria. The Ventura River watershed is impaired with DDT and PCBs.

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**TABLE 10-2
DESIGNATED BENEFICIAL USES IN THE VENTURA RIVER WATERSHED**

| WATERSHED ^a | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | MIGR | SPWN | SHELL | WET ^b |
|----------------------------------------------------------------|-----|-----|------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|------------------|
| VENTURA COUNTY COASTAL STREAMS | | | | | | | | | | | | | | | | | | | | | | |
| Los Sauces Creek | P* | I | I | I | I | | | | | | I | I | | | | E | | | I | I | | |
| PovertyCanyon | P* | I | I | I | I | | | | | | I | I | | | | E | | | I | I | | |
| MadranoCanyon | P* | I | I | I | I | | | | | | I | I | | | | E | | | I | I | | |
| JavonCanyon | P* | I | I | I | I | | | | | | I | I | | | | E | | | I | I | | E |
| Padre Juan Canyon | P* | I | I | I | I | | | | | | I | I | | | | E | | | I | I | | |
| McGrathLake | | | | | | | | | P | | | | | E | | E | | Ee | | | | E |
| Big Sycamore Canyon Creek | P* | | | | I | | | | | | I | E | | | | E | | | P | P | | E |
| Little Sycamore Canyon Creek | P* | | | | | | | | | | I | | | | | E | | E | | P | | E |
| VENTURA RIVER WATERSHED | | | | | | | | | | | | | | | | | | | | | | |
| Ventura River Estuary | | | | | | | E | | E | | E | E | | E | E | E | | Ee | Ef | Ef | E | E |
| Ventura River Reach 1 (Ventura River Estuary to Main St.) | P* | E | | E | E | E | | | | | E | E | | | | E | | E | E | E | | E |
| Ventura River Reach 2 (Main St. to Weldon Canyon) | P* | E | | E | E | E | | | | | E | E | | | | E | | E | E | E | | E |
| Cañada Larga | P* | | I | I | I | I | | | | | I | I | | | | E | | | I | I | | |
| LakeCasitas | E | E | E | E | P | P | | P | | | E | E | | | | E | | E | | | | |
| Lake Casitas tributaries | E* | | | P | E | | | | | | E | E | | | | E | | P | E | E | | E |
| Ventura River Reach 3 (Weldon Canyon to Casitas Vista Rd.) | P* | E | | E | E | E | | | | | E | E | | | | E | | E | E | E | | E |
| Ventura River Reach 4 (Casitas Vista Rd. to San Antonio Creek) | P* | E | | E | E | E | | | | | E | E | | | | E | | E | E | E | | E |
| Ventura River Reach 4 (San Antonio Creek to Camino Cielo Rd.) | E | E | E | E | E | E | | | | | E | E | | | | E | | Eg | E | E | | E |
| CoyoteCreek | P* | | | | E | | | | | | E | E | | | | E | | | E | E | | E |
| San Antonio Creek (Ventura River Reach 4 to Lion Creek) | E | E | E | E | E | | | | | | E | E | | | | E | | | E | E | | E |
| San Antonio Creek (above Lion Creek) | E | E | E | E | E | E | | | | | E | E | | | | E | | | E | E | | E |
| Lion Creek | I* | I | I | I | | | | | | | I | I | | | | E | | | | | | |
| Reeves Creek | I* | I | I | I | | | | | | | I | I | | | | E | | | I | I | | |
| Mirror Lake | P* | | | | E | | | | | | E | | | | | E | | | | | | E |
| Ojai Wetland | P* | | | | | | | | | | E | | | | | E | | | | | | E |

**TABLE 10-2
DESIGNATED BENEFICIAL USES IN THE VENTURA RIVER WATERSHED**

| WATERSHED ^a | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | MIGR | SPWN | SHELL | WET ^b | |
|----------------------------------------------------------------------|-----|-----|------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|------------------|---|
| VENTURA COUNTY COASTAL STREAMS | | | | | | | | | | | | | | | | | | | | | | | |
| Ventura River Reach 5 (above Camino Cielo Rd.) | E | E | E | E | E | E | | | | | E | E | | | | E | | Eg | E | E | | E | |
| Matilija Creek Reach 1 (Ventura River Reach 5 to Matilija Reservoir) | P* | | | | E | | | | | | | E | | | | E | | | | E | E | | E |
| Matilija Creek Reach 2 (above Matilija Reservoir) | P* | | | | E | | | | | | | E | | | | E | | | | E | E | | E |
| Murietta Canyon Creek | P* | | | | E | | | | | | | E | | | | E | | | | E | E | | E |
| North Fork Matilija Creek | E* | E | E | E | E | | | | | | E | E | | | | E | | E | | E | E | | E |
| Matilija Reservoir | E | | | E | E | E | | | | | E | E | | | | E | | | | E | E | | E |

E: Existing beneficial use
P: Potential beneficial use

I: Intermittent beneficial use
E, P, and I: shall be protected as required

* Asterisked MUN designations are designated under SB 88-63 and RB 89-03. Some destinations may be considered for exemption at a later date.

a: Waterbodies are listed multiple times if they cross hydrologic area or subarea boundaries. Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.

b: Waterbodies designated as WET may have wetlands habitat associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.

c: Coastal waterbodies which are also listed in inland Surface Waters Tables (2-1) or in Wetlands Table (2-4).

e: One or more rare species utilizes all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

f: Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.

g: Condor refuge.

Source: Table 2-1. Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties (electronic copy accessed December 27, 2016).

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Available Water Supplies

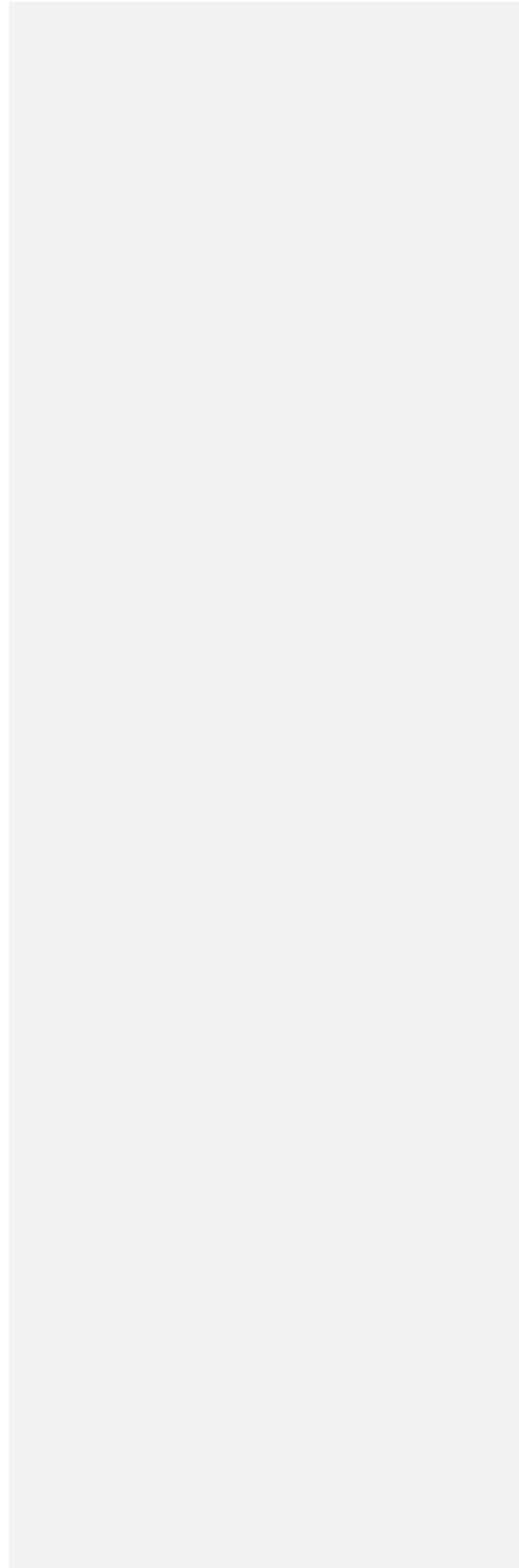
The sources of water in the Ventura River watershed include surface water from the Central Valley and groundwater. A valid surface water rights (from the Central Valley) are provided have been quantified by the California Municipal Water District 2014 as 98,364,200 cfs. The City of Ventura draws approximately 20% of its water supplied an average of 151 AFY from 2010 to 2014 from the Ventura River. Limited riparian owners may divert much as 11,000 AFY from the Ventura River to local economic development in the Ventura River surface water project to provide SW-RCB-eW-RM-S-d-ae).

Estimate groundwater supply is quite difficult. To understand the yield of a groundwater basin, change from precipitation minus evaporation from the ground surface and infiltration minus discharge and outflow and from adjacent groundwater basins must be assessed. This is not an accepted definition for yield of the groundwater basin in the Ventura River Watershed. However, the DWR Report of Water Resources has made rough estimates of groundwater yield by evaluating groundwater discharge by evaluating past groundwater extractions. The Ventura County Watershed Protection District has provided estimates of groundwater supply in various basins. Groundwater supply is a function of surface groundwater recharge and discharge and may not be representative of the groundwater yield. Table 10-3 provides an estimate of supply by groundwater basin in the Ventura River Watershed. The difference in the groundwater supply estimates documented in the groundwater supply.

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| Basin | DWR Estimate of Groundwater Budget (AFY) | Past Groundwater Extractions (AFY) | Notes |
|-----------------------------------------------------------------|------------------------------------------|------------------------------------|----------|
| Upper Ojai | 1,320 | 700 | 1 |
| Ojai Valley | 3,150 to 3,300 | 8,404 | 2, 3 |
| Upper Ventura | None | 10,392 | 4, 5 |
| Lower Ventura | 1,200 | 400 | 6 |
| <i>Low Estimate Groundwater Supply Ventura River Watershed</i> | | <i>14,600</i> | <i>7</i> |
| <i>High Estimate Groundwater Supply Ventura River Watershed</i> | | <i>21,300</i> | <i>7</i> |
| Notes: | | | |
| 1. DWR 2003, Basin 4-1 | | | |
| 2. DWR 2003, Basin 4-2 | | | |
| 3. Ventura County Watershed Protection District 2015a | | | |
| 4. DWR 2003, Basin 4-3.01 | | | |
| 5. Ventura County Watershed Protection District 2015a | | | |
| 6. DWR 2003, Basin 4-3.02 | | | |
| 7. Rounded to nearest 100 AF | | | |



Additional information on the Ventura River Watershed is provided in

Table 10-4.

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| TABLE 10-4 CURRENT (2016) TOTAL WATER SUPPLY ESTIMATES VENTURA RIVER WATERSHED | |
|--------------------------------------------------------------------------------------|--------------------|
| Supply Source | Annual Volume (AF) |
| Surface Water, Lake Casitas | 20,000 |
| Surface Water, Ventura River | 3,051 |
| Groundwater (see Table 10-3) | 14,600 to 21,300 |
| Low Estimate (rounded to nearest 100 AF) | 37,700 |
| High Estimate (rounded to nearest 100 AF) | 44,400 |

Water Suppliers

There are five major water providers serving more than 100,000 people in the Ventura River Watershed as well as 11 municipal water companies. ~~Persons or businesses in the Ventura River Watershed are also supplied by private wells and surface water diversions.~~

~~M~~ ~~The~~ ~~major~~ ~~water~~ ~~suppliers~~ ~~are~~ ~~documented~~ ~~in~~ ~~Table~~ ~~10-5~~ ~~and~~ ~~Figure~~ ~~10-3~~ ~~and~~ ~~the~~ ~~unincorporated~~ ~~County~~ ~~These~~ ~~are~~ ~~shown~~ ~~in~~ ~~Figure~~ ~~10-3~~.

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The 11 municipal water companies provide water to stockholders and members. These municipal companies ~~can~~ serve as few as 10 people and up to 80,000 people. ~~M~~ ~~The~~ ~~municipal~~ ~~water~~ ~~companies~~ ~~are~~ ~~documented~~ ~~in~~ ~~Table~~ ~~10-6~~ ~~and~~ ~~Figure~~ ~~10-3~~ ~~and~~ ~~provide~~ ~~water~~ ~~to~~ ~~most~~ ~~of~~ ~~the~~ ~~residential~~ ~~and~~ ~~business~~ ~~in~~ ~~unincorporated~~ ~~County~~ ~~see~~ ~~Figure~~ ~~10-3~~.

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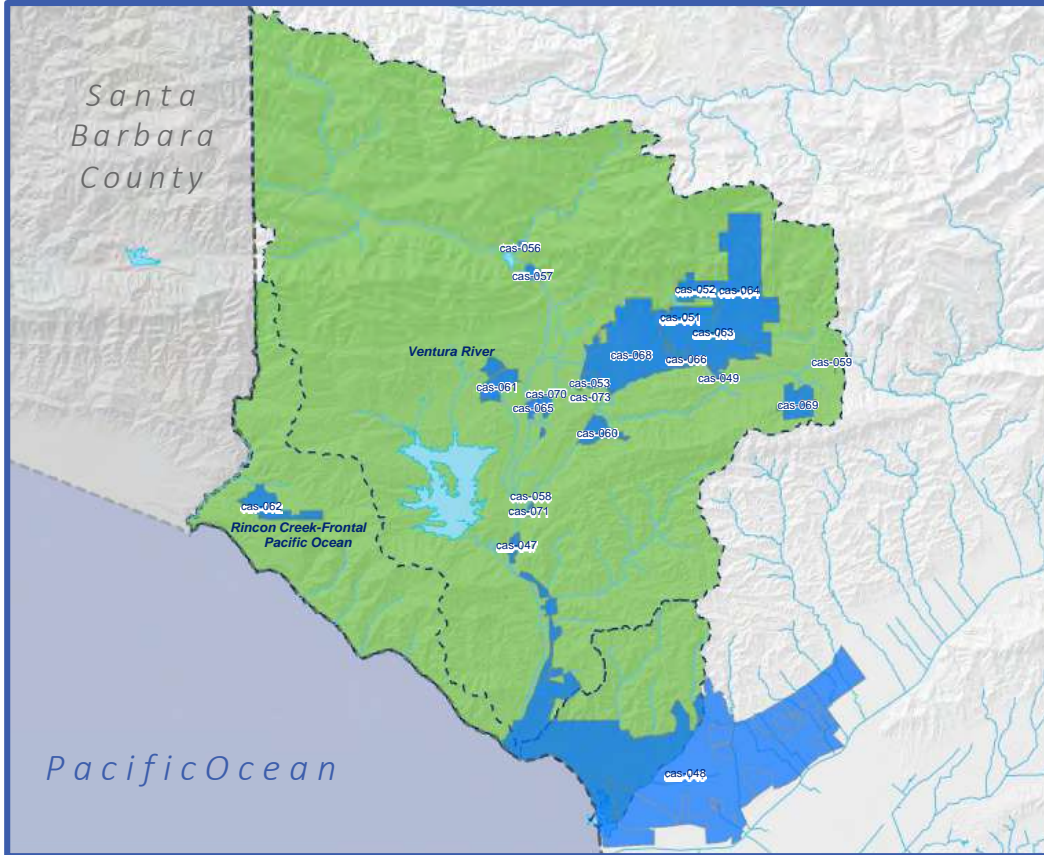
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**TABLE 10-5
MAJOR WATER SUPPLIERS - VENTURA RIVER WATERSHED**

| Supplier/Primary Source(s) | Type | Area Served | Estimated Population Served | Annual Water Supplied* |
|----------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Casitas Municipal Water District Surface water from Lake Casitas | Special District | City of Ojai, portion of the City of Ventura, coastal Rincon, Upper Ojai, and Ventura River Valley. | ~70,300 | ~16,700 AF, includes ag sales and sales to other agencies |
| Ventura Water Lake Casitas water, Ventura River, groundwater (Oxnard Plain, Mound, Santa Paula Basins), recycled water | City | City of Ventura and 1.5 square miles (~960 acres) within City's sphere of influence. City falls within both the Ventura and Santa Clara Watersheds. | ~112,400 | ~16,700 AF, a portion of this supply is provided by Casitas Municipal Water District (5-year average 2011 to 2015 City of Ventura 2016a) |
| Golden State Water Company Ojai Valley groundwater and Lake Casitas | Investor Owned Utility | City of Ojai and adjacent unincorporated County. | ~8,200 | ~2,300 AF, a portion of this supply is provided by Casitas Municipal Water District. |
| Ventura River Water District Upper Ventura River groundwater and Lake Casitas | Special District | Part of Casitas Springs, Burnham Road area west of the Ventura River, northern portion of Oak View | ~6,000 | ~1,400 AF, a portion of this supply is provided by Casitas Municipal Water District |
| Meiners Oaks Water District Upper Ventura River groundwater and Lake Casitas water | Special District | Portion of the Meiners Oaks Community east of the Ventura River. | ~4,000 | ~1,100 AF, a portion of this supply is provided by Casitas Municipal Water District |

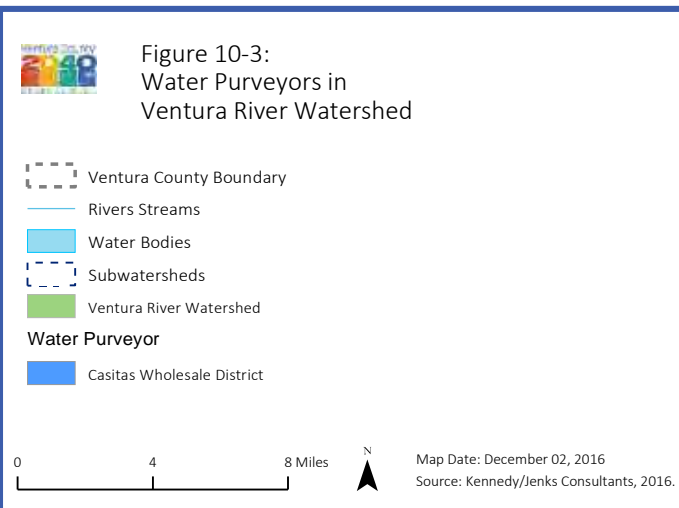
*Estimated based on records of water supplied 2010 to 2015, rounded to nearest 100 AF. Does not account for planned future expansion of demands and supplies.

Source: Ventura River Watershed Council 2015 Table 3.4.1.2.1, Casitas Municipal Water District 2016, City of Ventura 2016a, City of Ventura 2016b, Meiners Oaks Water District 2014, Ventura River Water District <http://venturariverwd.com/about-2/> accessed December 29, 2016.



WATER PURVEYOR

| CASITAS WHOLESALE DISTRICT | |
|----------------------------|-----------------------------------------|
| SUPPLIER | WATER COMPANY |
| Casitas (cas-047) | Casitas MWC |
| Casitas (cas-048) | City of San Buenaventura |
| Casitas (cas-048) | City of San Buenaventura |
| Casitas (cas-049) | San Park Water System |
| Casitas (cas-068) | Golden State Water Company - Ojai |
| Casitas (cas-051) | Gridley Road Water Group |
| Casitas (cas-052) | Hermitage MWC |
| Casitas (cas-053) | Krotana Institute of Theosophy |
| Casitas (cas-056) | North Fork Springs MWC |
| Casitas (cas-063) | Ojai Water Conservation District |
| Casitas (cas-057) | Ojala |
| Casitas (cas-058) | Old Creek Road MWC |
| Casitas (cas-059) | Oviatt Water Association |
| Casitas (cas-060) | Rancho del Cielo MWC |
| Casitas (cas-061) | Rancho Matilija MWC |
| Casitas (cas-062) | Rincon Water and Roadworks |
| Casitas (cas-064) | Senior Canyon MWC |
| Casitas (cas-065) | Sheriff's Honor Farm |
| Casitas (cas-066) | Siete Robles MWC |
| Casitas (cas-069) | Sulphur Mountain Road Water Association |
| Casitas (cas-070) | Tico MWC |
| Casitas (cas-071) | Tres Condados |
| Casitas (cas-073) | Villanova Road Water Well Association |



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**TABLE 10-6
MUTUAL WATER COMPANIES VENTURA RIVER WATERSHED**

| Supplier | Type | Area Served | Estimated Population Served |
|-----------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Casitas Mutual Water Company | Mutual | Residents in Casitas Springs, west of Highway 33. | ~250 |
| Gridley Road Water Group | Mutual | Agriculture in the Gridley Road and Grand Avenue area in eastern Ojai Valley. | ~44 |
| Hermitage Mutual Water Company | Mutual | Agriculture and several large residential estates in the area of Gridley and Senior canyons north of the Ojai Valley. | ~35 |
| North Fork Springs Mutual Water Company | Mutual | Residential users located along Highway 33 north of the City of Ojai and east of the Matilija Reservoir, in Los Padres National Forest. | ~10 |
| Old Creek Road Mutual Water Company | Mutual | Residential users along East Old Creek Road. | ~12 |
| Rancho Matilija Mutual Water Company | Mutual | Agricultural parcels in the Rancho Matilija subdivision, north of Baldwin Road and west of Meiners Oaks. | 0 |
| Rancho del Cielo Mutual Water Company | Mutual | Residential and agricultural users along Creek Road along San Antonio Creek. | ~18 |
| Senior Canyon Mutual Water Company | Mutual | Northeast end of the Ojai Valley, north of Reeves Creek, east of Carne Road. | ~800 |
| Siete Robles Mutual Water Company | Mutual | Housing tract east of the City of Ojai | ~245 |
| Sisar Mutual Water Company | Mutual | Summit area of the Upper Ojai Valley | ~325 |
| Tico Mutual Water Company | Mutual | Residential are in Mira Monte, west of Highway 33 | ~77 |

Source: Ventura River Watershed Council 2015 Table 3.4.1.3.1

Private well and water services serve the irrigated and domestic water users in the watershed. Twenty different agencies are registered with the State Water Resources Control Board as having jurisdiction over surface water in the Ventura River watershed (SWRCB 2014 and Ventura River Watershed Council 2015). There are 442 active wells in the Ventura River watershed (Ventura River Watershed Council 2015). In addition, these private users extract approximately 2,000 AFH of water (Ventura River Watershed Council 2015).

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Estimates of Water Demand

In 2014 the Ventura County Water Assessment Program Data and Evaluation of Countywide Water Demand. This effort used data from water agencies and groundwater pumping (where available). However, the geographic areas of Ventura County are served by water agencies but the private well surface water diversions and groundwater pumping are not included. Future agricultural groundwater extraction is reported but not metered in many areas and but the demand data was used to develop the Integrated Water Modeling (IWM) Demand Calculator developed by the Department of Water Resources. This proprietary model estimates water demands for crop and residential and commercial uses. The IWM calculator estimates urban water requirements and returns based on population and per capita water usage. The results for the County of Ventura 2013 Water Supply and Demand estimates and demands for each of the major watershed in the Ventura River Watershed Results are provided in **Table 10-7**.

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| Watershed/Sub-watershed | Total Agricultural Demand (AF) | Total Municipal Demand (AF) | Total Demand (AF) |
|--------------------------------------|--------------------------------|-----------------------------|-------------------|
| Rincon | 5,727 | 1,848 | 7,575 |
| Ventura River | 11,745 | 13,351 | 25,096 |
| Subtotal (rounded to nearest 100 AF) | 17,500 | 15,200 | 32,700 |

Source: Hydrometrics 2015, Table 6.

Note: Table 10-7 shows the distribution of demand as agricultural demand is estimated to be slightly more than municipal demand.

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Demand Management

Table 10-8 summarizes the various water conservation and demand management measures undertaken in the Ventura River Watershed. Table 10-8 summarizes demand management measures undertaken under normal conditions as well as less extensive efforts during drought and severe conservation conditions during drought. Most agencies continue to provide public information on how to conserve water however these efforts increase expenditure during droughts. During normal conditions water providers may provide public information on how to conserve water but during drought conditions they may provide more information on how to conserve water. The demand management measures undertaken during drought depend on the severity and length of drought. In the beginning of drought conditions may be limited to 3 days a week and during drought conditions may be limited to one day a week or even public display.

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**TABLE 10-8
DEMAND MANAGEMENT MEASURES IN VENTURA RIVER WATERSHED**

| Agency | Conservation Measures in Effect at All Times | | | | | | | Conservation Measures that May Be Implemented in Drought | | | | |
|------------------------------------------|----------------------------------------------|--------------------------|----------|----------------------|-----------------------------------------------|-----------------------------------------------|-------------------------|----------------------------------------------------------|--------------------------------------------|---------------------------------|-------|-------------------------------------|
| | Public Information and Outreach | Water Waste Prohibitions | Metering | Volume-Based Pricing | Water Efficiency Surveys Offered to Customers | Rebates for High Efficiency Plumbing Fixtures | Turf Removal Incentives | Drought Surcharge | Limitations on Irrigation/Outdoor Watering | Mandatory Reductions/Allocation | Fines | Suspension of new water connections |
| Casitas Municipal Water District | X | X | X | X | X | X | X | | X | X | X | X |
| Ventura Water | X | X | X | X | X | X | X | X | X | X | X | X |
| Golden State Water Company | X | X | X | X | X | X | | X | X | | | |
| Ventura River Water District | X | | X | X | X* | X* | X* | X | X | | X | |
| Meiners Oaks Water District | X | | X | X | X* | X* | X* | X | | X | X | X |
| Ojai Basin Groundwater Management Agency | X | | X | X | | | | | | | | |

*Offered by Casitas Municipal Water District

Sources: Casitas Municipal Water District 2016; City of Ventura 2016b; Golden State Water Company 2011; Ventura River Water District 2016; Meiners Oaks Water District 2016.

Comparison of Supply and Demand

Water demand is estimated between 157436377.00 AF and 1408327.00 AF... The City of Ventura is pursuing a... project to increase... water supply.

The concern about... groundwater... Some water agencies... Ventura River Water... project to increase... water supply.

Water-Related Challenges

Below are the water-related challenges for the Ventura River Water... as of 2020/2016:

Drought and Supply Variability

The 70,000 people in western Ventura County have been impacted by... drought conditions... in 2012... due to... and... agreements... water cannot be... distributed... Ventura County and... groundwater... supply... variability... recharge... groundwater... storage... Ventura River... are now entirely dependent on... one of four wells... Since 2011... have increased by 1000 percent... main... water supply concerns.

As of 2020... in Lake Castilleja... 40 percent... since the onset of the drought in 2012... Low... in 1968... resulted in... and... oxygen... conditions... The... have... The... had...

Major drought conditions are in place for some... Ventura Water... depending on the... water... need to reduce... by up to 30 percent.

Background Report

County of Ventura

Water for Environmental Purposes

As water agencies plan for the future, the development of water supply systems that protect environmental resources and demonstrate the ability to meet the needs of the future is essential. Endangered Species Act on water resources.

The Roberts Division site is located in the Ventura River watershed. The California Department of Water Resources (DWR) is the lead agency for the development of the Ventura River watershed. The DWR is currently conducting a study to determine the water requirements for the Ventura River watershed. The study is currently in progress and is expected to be completed in 2018.

In 2008 the City of Ventura began conducting studies of Ventura River flow conditions in order to assess the potential for water supply. The study was conducted by the City of Ventura and the Ventura River Watershed Council. The study found that the Ventura River watershed is currently over-allocated and that there is a need to develop a water supply plan that takes into account the needs of the future. The study also found that there is a need to develop a water supply plan that takes into account the needs of the future.

Quality

The Ventura River watershed is a highly sensitive area. The watershed is currently over-allocated and there is a need to develop a water supply plan that takes into account the needs of the future. The study also found that there is a need to develop a water supply plan that takes into account the needs of the future.

Cuyama Watershed

The Cuyama Watershed is a highly sensitive area. The watershed is currently over-allocated and there is a need to develop a water supply plan that takes into account the needs of the future. The study also found that there is a need to develop a water supply plan that takes into account the needs of the future.

Oxnard Plain

The Oxnard Plain is an important area for water resources. The Oxnard Plain is a sub-division of the San Joaquin Hills and is a part of the Oxnard Plain. The Oxnard Plain is a sub-division of the San Joaquin Hills and is a part of the Oxnard Plain.

Figure 10-2 and The Oxnard Plain

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The Oxnard Plain is a sub-division of the San Joaquin Hills and is a part of the Oxnard Plain. The Oxnard Plain is a sub-division of the San Joaquin Hills and is a part of the Oxnard Plain. The Oxnard Plain is a sub-division of the San Joaquin Hills and is a part of the Oxnard Plain.

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Santa Clara River Watershed

The Santa Clara River is a sub-division of the San Joaquin Hills and is a part of the Oxnard Plain. The Santa Clara River is a sub-division of the San Joaquin Hills and is a part of the Oxnard Plain. The Santa Clara River is a sub-division of the San Joaquin Hills and is a part of the Oxnard Plain.

Background Report

County of Ventura

The climate of the Santa Clara River watershed is characterized by drought periods and wet winters. In the coastal oceanic climate, moderate temperatures result in an average 74 inches of rain annually. The average annual precipitation in the Western Regional Climate Center Station 0492852 Ventura is 74 inches. Precipitation can exceed 110 inches in the summer and drop below freezing in the winter. The Western Regional Climate Center Station 047957 Santa Ana Peak receives precipitation in the form of winter storms and dry conditions. Approximately 75 percent of the annual precipitation occurs from December through March. The mean seasonal precipitation varies from about 40 inches in the mountains to about 18 inches in the Piru and the County of Ventura. The Western Regional Climate Center Station 046940 Piru (ESE) and Station 043050 (W-NW) and under 15 inches in the coastal Western Regional Climate Center Station 0492852 Ventura.

The climate of the Santa Ana and Ventura and Ventura watersheds is characterized by moderate temperatures and precipitation. The County of Ventura is a part of the Piru Basin and the Santa Ana and El Rio and the Ventura County watersheds are as follows:

- Agriculture 42%
- Open Space 27%
- Urban Uses 26%
- Other (includes open space reserve) 5%

Surface Water

The major surface water resource in the watershed is the Lake Piru Reservoir on the Santa Clara River.

Lake Piru Reservoir The construction of Santa Fe Dam on the Piru Creek in 1955 created the Lake Piru Reservoir. The purpose of the dam and the reservoir is to provide approximately 8,000 AFUW (C.D. 2016). The reservoir receives water runoff from the watershed and can receive imported SWP water from the Pyramid Lake. Water from Lake Piru is released into Piru Creek and flows to the Santa Clara River where it is joined by runoff from Sespe and Santa Ana Creeks. The releases are used for agricultural and municipal purposes and water made available for irrigation. The agricultural UW C.D. 2016 Lake Piru is operated by United Water Conservation District (UW C.D.) General UW C.D. schedules all conservation releases from Lake Piru. The releases are scheduled to exchange between Piru and the Santa Ana and the Santa Ana and the Santa Ana. The timing of the flows is directed by the Freeman Diversion for exchange in the Oxnard Forb and the Oxnard Forb.

D-Howe The dam and the dam on the Lake Piru will prevent the UW C.D. from performing conservation releases in some years. The dam is owned and operated by the Federal Energy Regulatory Commission (FERC). The FERC license to operate Santa Fe Dam has many requirements for the dam to be operated in a way that is consistent with the requirements of the dam. The FERC license requirements include the dam to be operated in a way that is consistent with the requirements of the dam. The dam is dependent on the dam.

Santa Clara River Due to the dam and the dam on the Santa Clara River can be described as a perennial stream, which is a perennial stream and is not intermittent. The releases are controlled by the dam and the dam. The dam is owned and operated by the Federal Energy Regulatory Commission (FERC). The dam is operated by the dam. The dam is dependent on the dam.

Background Report

County of Ventura

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t h e r i n e a r i g w a r t h e S a n C a h R i e V e n t n C o u n Y W a s h e d P r e c i n D a t
2015) The water treatment plant is permitted to discharge effluent to W D R from the
L A R W Q C T B C y i o f V e n t n a c u r e n t d i s c h e s o t h e S a n C a h R i e E s t a y b u s i a c t e y
s t d i n g w a s o n c e a e c y c l e d w a r u s e n i a m a n n e r p r a c t i c e o f t h e S a n C a h R i e E s t a y
C y i o f V e n t n (2016)

Groundwater

The SanC ahRiv V d i y B a n s i t e p i n a y b a n u n d e r t h e V e n t n C o u n Y p o i n o f t h e
S a n C a h R i e W a s h e d T h i b a n s i s u b d i v i d e d i n t o s u b - b a n s P i n D W R B a n N o. 4-0046)
t h r o e D W R B a n N o. 4-0045 S a n P a r d W R B a n N o. 4-0044 M o u n d W R B a n N o.
4-0043 a n d O x n a d W R B a n N o. 4-0042 A l l g r o u n d w a r b a n s s u b b a n s i n t h e V e n t n
C o u n Y p o i n o f t h e S a n C a h R i e w h i e e x c e p t i n o f t h e S a n P a r d S u b B a n (w h i c h i s
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i n t h e m e a s u r e s . T h e O x n a d a n d P i n g r o u n d w a r s u b b a n s w e r e d e e m e d " l i g h t " a n d
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t h e b a n s .

The F o x - C a y o n G M A i s d e e m e d t o b e t h e G S A g r o u n d w a r s u f f i c i e n c y u n d e r S G M A f o r
t h e b a n s w h i c h F o x - C a y o n G M A b o u n d a r e s y w i t h t h e n o t d e s c r i b e d t h e O x n a d S u b b a n .

Important Recharge Areas

The Ox n a d F o r b y w a s d e s c r i b e d a b o v e .

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Imported Supplies

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M u n i c i p a l W a r D a t a n d a n o f 500 --A F a n d U W C D h a s a n d a n o f 500 --A F
P o t h u e n e m e W a r a g e n y u s e s 1850 --A F o f U W C D s e d i m e n t a n d b u t r e c e i v e s t h e w a r t h o u g h
C a l g a s M u n i c i p a l W a r D a t The SW P c o n t e x p e n s i 2035 b u n e g i t s a u n d e r w a y o
e x t e n d t h e c o n t e U p t o 350 --A F o f S W P w a s p e r m i t t e d t o b e r e a d e d f r o m P y n n d L a k e a n d
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w a r r e a d i n e a c h y e a r d e p e n d s o n a n n u a l a n d d e l e v e l s o n l y d e l e v e d f r o m N o v e m b e r 1

Water Resources

2040 General Plan

10

through the end of February. Ventura County Wastewater Treatment Plant (WTP) is currently under construction and is expected to be completed in late 2015. The WTP is currently under construction and is expected to be completed in late 2015. The WTP is currently under construction and is expected to be completed in late 2015.

Background Report

County of Ventura

Ventura purchase agreement used SW P d in A cording to U W C D "The purchase of SW P w r be considered by Unit am u on a need b u W C D 2016)

In d in the SW P su p s d eled o L de P in Reser v die C y of O x n ad pu ches in p r d w r from C d g u s M u r p u W r D u n g h e p r d from 1991 2013 d e d e l e s of SW P w r o h e O x n ad a w e r 31 @ 00 -- A F - n e j 10 i n e s h e a m o u n t of w r d e l e d o L de P in T h e s u p s a e ~~in n~~ p r o v e d o h e C h n e l k d s B e a c h C o m m u n i S e r v i e s D i e C y of P o f H u e n e m e ; a n d N a v B a e V e n t u r a C o u n t y ; v a l e P o f H u e n e m e W r A g e n c y .

~~T A h i n e t~~ h e C y of V e n t u r a d o e s n o t h a v e h e ~~i n f o r m a t i o n e f i l i~~ n e e d e d o d e l e r S W P w r n o t d i n s y s t e m . ~~H o w e v e r~~ V e n t u r a ~~e u e r j~~ w o n g w i c d g u s M u r p u W r D u n g h e s o n ~~a p r o p~~ ~~d i s r i e t~~ o b i g S W P d i n o h e C y s y s t e m .

Other Supplies

Sev e r a g e n c i e s i n t h e S a n t a R i v e r W a s h e d p r o d u c e a n d d e l e r e c y o d w a n t d i n g h e f o l l o w i n g

- * ~~T~~ h e C y of h i o e
 - * C y of O x n ad a n d
 - * C y of V e n t u r a

Water Quality

~~T h e e L o s A n g e l s L A R W Q C B h a s e n t e d b e n e f i c i a l s e s f o r t h e S a n t a R i v e r W a s h e d a s d e d i n T a b l e 10-9 P e m i t t a n s a n d T M D L s h a v e b e e n d e v e l o p e d o p r o t e c t t h e s e b e n e f i c i a l s e s . T h e f o l l o w i n g T M D L s a r e i n p l a c e f o r p o i n t s o f t h e S a n t a R i v e r W a s h e d :~~

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- C h l o r i n e i n t h e S a n t a R i v e r R e a c h 3 a b e t w e e n h i o e a n d S a t o y - T M D L e f f e c t i v e J u n e 1 8 2 0 0 3
- C h l o r i n e i n t h e U p p e r S a n t a R i v e r o n l y a s m p o i n t s w h i l e c o u n t y - T M D L e f f e c t i v e A p r i l 8 2 0 1 5

In d i n o h e e x i s t i n g T M D L s o r T M D L s m a y b e d e v e l o p e d a s s e v e r a l S a n t a R i v e r W a s h e d a s a r e n o t d e d i n C h a p t e r 30 (3) L i s t e d i m p a i r m e n t s i n t h e S a n t a R i v e r a n d i n t h e s i c h d e c h l o r i n e b o u n d a r y s o l d s o l u t i o n ; a s w e l l s m u l t i c h e m i c a l g e n e r a t e d o a s " C h e m A T h e M e G a n B e a c h a e a i ~~c o n s i d e r e d o b e~~ i m p a c t e d b y c o l u m b a c i a n d o x i d e s e d i m e n t .

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**TABLE 10-9
DESIGNATED BENEFICIAL USES IN THE SANTA CLARA RIVER WATERSHED**

| WATERSHED ^a | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | MIGR | SPWN | SHELL | WET ^b |
|--------------------------------------------------------------------------------|-----|-----|------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|------------------|
| SANTA CLARA RIVER WATERSHED | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River Estuary (Ends at Harbor Blvd.) ^c | | | | | | | E | E | | | | | | E | E | E | | Ee | Ef | Ef | | E |
| Santa Clara River Reach 1 | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (Estuary to Highway 101 bridge) | P* | E | E | E | E | E | | | | | E | E | | | | E | | E | E | | | E |
| Santa Clara River Reach 2 | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (Highway 101 bridge to Ellsworth Barranca) | P* | E | E | E | E | E | | | | | E | E | | | | E | | E | E | | | E |
| Santa Clara River (Ellsworth Barranca to Freeman Diversion) | P* | E | E | E | E | E | | | | | E | E | | | | E | | E | E | | | E |
| Santa Clara River Reach 3 | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (Freeman Diversion Dam to Santa Paula Creek) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | E | | | E |
| Santa Clara River (Santa Paula Creek to Sespe Creek) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | E | | | E |
| Santa Clara River (Sespe Creek to A Street, Fillmore) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | E | | | E |
| Santa Clara River Reach 4A | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (A Street Fillmore to Piru Creek) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | E | | | E |
| Santa Clara River Reach 4B | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (Piru Creek to Blue Cut gaging station) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | E | | | E |
| Santa Clara River Reach 5 | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (Blue Cut gaging station to West Pier Highway 99) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | | | | E |
| Santa Clara River Reach 9 | | | | | | | | | | | | | | | | | | | | | | |
| Santa Paula Creek (above Santa Paula Water Works Diversion Dam) | P* | E | E | E | E | E | | | | | E | E | | | | E | | E | E | E | | |
| Santa Clara River Reach 10 | | | | | | | | | | | | | | | | | | | | | | |
| Sespe Creek (gaging stn below Little Sespe Creek to Potrero John Creek) | P | E | P | E | E | | | | | | E | E | | | | E | E | Eg | E | E | | E |
| Santa Clara River Reach 11 | | | | | | | | | | | | | | | | | | | | | | |
| Piru Creek (gaging stn below Santa Felicia Dam to Agua Blanca Creek) | P | E | E | E | E | E | | | | | E | E | | | | E | | Eg | | | | |
| Santa Paula Creek (Santa Clara River R4A to Santa Paula Water Works Diversion) | P | E | E | E | E | E | | | | | E | E | | | | E | | E | E | E | | |
| Sisar Creek | P | E | P | E | E | | | | | | E | E | | | | E | | Eg | | E | | E |

**TABLE 10-9
DESIGNATED BENEFICIAL USES IN THE SANTA CLARA RIVER WATERSHED**

| | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | MIGR | SPWN | SHELL | WET |
|-------------------------------------------------------------------------|-----|-----|------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|-----|
| SANTA CLARA RIVER WATERSHED | | | | | | | | | | | | | | | | | | | | | | |
| Sespe Creek (Santa Clara River R3 to gaging station below Little Sespe) | P | E | E | E | E | | | | | | E | E | | | | E | E | E | E | E | E | E |
| Timber Creek | P* | | | | E | | | | | | E | E | | | | E | E | E | E | E | E | E |
| Bear Canyon | P* | | | | E | | | | | | E | P | | | | E | E | E | E | E | E | E |
| Trout Creek | P* | | | | E | | | | | | E | E | | | | E | E | E | E | E | E | E |
| Piedra Blanca Creek | P* | | | | E | | | | | | E | E | | | | E | | E | E | E | E | E |
| Lion Canyon | P* | | | | E | | | | | | E | E | | | | E | | | E | E | E | E |
| Rose Valley Creek | P* | | | | E | | | | | | E | E | | | | E | | | E | E | E | E |
| Howard Creek | P* | | | | E | | | | | | E | E | | | | E | E | E | E | E | E | E |
| Tule Creek | P* | | | | E | | | | | | | P | | | | E | E | E | E | E | E | E |
| Potrero John Creek | P* | | | | E | | | | | | | P | | | | E | E | E | E | E | E | E |
| Hopper Creek | P* | E | | E | E | E | | | | | E | E | | | | E | | Eg | | | | E |
| Piru Creek (Santa Clara River R4A to Santa Paula Water Works Diversion) | P | E | E | E | E | E | | | | | E | E | | | | E | | Eg | E | E | E | E |
| Lake Piru | P | E | E | E | E | P | | | | | E | E | | | | E | | E | | | | E |

E: Existing beneficial use

P: Potential beneficial use

I: Intermittent beneficial use

E,P, and I: shall be protected as required

* Asterisked MUN designations are designated under SB 88-63 and RB 89-03. Some destinations may be considered for exemption at a later date.

a: Waterbodies are listed multiple times if they cross hydrologic area or subarea boundaries. Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.

b: Waterbodies designated as WET may have wetlands habitat associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.

g: Condor refuge.

j: Out of service.

Source: Table 2-1. Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties (electronic copy accessed December 27, 2016).

Water Resources

2040 General Plan

Available Supplies

Water resources include surface water, groundwater, and recycled water. A list of supplies is provided in Table 10-11.

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Surface Water

UCD collects and treats surface water from the San Joaquin River and the Delta. The purpose of this water is to provide a reliable source of water for agricultural and municipal use. The average flow is approximately 28,369 acre-feet per year. The water is treated and then distributed to users. The water is also used for irrigation and industrial purposes.

The Delta and other sources provide water for agricultural and industrial use. The water is treated and then distributed to users. The water is also used for irrigation and industrial purposes.

Imported Water

Since 1991, UCD has received approximately 4.47 billion gallons of water per year. The water is imported from the State Water Project and the Central Valley Project. The water is treated and then distributed to users. The water is also used for irrigation and industrial purposes.

The imported water is used for agricultural and industrial purposes. The water is treated and then distributed to users. The water is also used for irrigation and industrial purposes.

The City of Oxnard receives imported water from the San Joaquin River and the Delta. The water is treated and then distributed to users. The water is also used for irrigation and industrial purposes.

Section 10.4: Existing Conditions 10-43

Background Report

County of Ventura

in the 2020-2040 Cj... 118,26 AFY of imported water from California in 2020 and 2016)

Groundwater

Existing groundwater supply and recharge... The difference in the groundwater supply and recharge... based on additional...
 Table 10-10 presents the estimate of additional groundwater supply based on additional...
 The difference in the groundwater supply and recharge... based on additional...
 groundwater supply.

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| TABLE 10-10 GROUNDWATER SUPPLY ESTIMATES SANTA CLARA RIVER WATERSHED | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------|-------|
| Basin | Estimate of Groundwater Budget (AFY) | Past Groundwater Extractions (AFY) | Notes |
| Piru | 9,050 | 12,403 | 1, 2 |
| Fillmore | 22,625 | 44,598 | 3, 4 |
| Santa Paula | 26,000 | 25,699 | 5, 6 |
| Oxnard Subbasin | 71,000 | 78,000 | 7, 8 |
| Mound | 8,000 | 10,000 | 9, 10 |
| <i>Low Estimate Groundwater Supply Santa Clara River Watershed</i> | | 136,400 | 11 |
| <i>High Estimate Groundwater Supply Santa Clara River Watershed</i> | | 171,000 | 11 |
| Notes: | | | |
| 1. DWR 2003, Basin 4-4.06. Assumes low estimate of 5,900 AFY outflow to Fillmore Basin. | | | |
| 2. UWCD 2016. 2014 and 2015 Piru and Fillmore Basins AB 3030 Biennial Groundwater Conditions Report. Average annual extractions 1980-2015. | | | |
| 3. DWR 2003, Basin 4-4.05. Assumes low estimate of 2,400 AFY outflow to Santa Paula Basin. | | | |
| 4. UWCD 2016. 2014 and 2015 Piru and Fillmore Basins AB 3030 Biennial Groundwater Conditions Report. Average annual extractions 1980-2015. | | | |
| 5. Information from the Santa Paula Basins Expert Group estimates annual yield at no less than 26,000 AFY (UWCD 2015). DWR 2003, Basin 4-4.04 budget is 5,593 AFY. Data from the Santa Paula Basins Expert Group is shown in the table. | | | |
| 6. UWCD 2015. 2012 Santa Paula Basin Annual Report. Average annual extractions 1980-2012. | | | |
| 7. USGS 2003. | | | |
| 8. UWCD 2017b. | | | |
| 9. Fugro West, Inc. 1997. Mound Groundwater Basin Annual Report. June. | | | |
| 10. City of Ventura 2011. City of San Buenaventura Water Master Plan and personnel communication D. Detmer of United Water Conservation District. | | | |
| 11. Rounded to the nearest 100 AF | | | |

Recycled Water

Ventura County Water District No. 6 (VCWWD) is also constructing a...
 upgrade for existing Piru Water Treatment Plant...
 LARQCBA Water Treatment Plant...
 meet the code of Regulations 22 equipment for new recycled

Water use is approximately 500 AF per year. A FY will be added for use as a new water source in the City of Oxnard (640 acres) of nearby agricultural property. This supply is added year 2020. The metered and effluent discharge is on a per acre basis.

The City of Oxnard completed recycled water in 2009 and discharges approximately 2000 AF per year. A FY of recycled water plants and school districts and for ground water per acre basis. H. ydromats 2015 (City of 2016)

The City of Santa Paula and its recycled water for ground water recharge. To avoid overcounting Santa Paula recycled water is not counted as ground water supply.

The City of Oxnard has been pursuing recycled water program for over 10 years. The City has constructed an Advanced Water Purification Facility (AWPF) as well as extensive transmission pipelines for recycled water system as of 2015. The AWPF has the capacity to produce 7000 AF per day. In 2015, the City is able to supply recycled water to a number of agricultural courses and residential common areas. The City has entered into an agreement with agricultural users in the Oxnard Plain to provide recycled water. The price to serve the Oxnard Plain is based on the current rate. Oxnard adjusts pricing between 7000 up to 14000 AF of recycled water to benefit users. ~~sign 2020 in the next 10 years~~

The City of Ventura has access to recycled water supply through the Ventura Water Reclamation Facility. The City of Ventura is the largest user of recycled water in the County. The City of Ventura is currently providing approximately 700 AF per day of recycled water for landscape irrigation by several residential City recycled water plants. In the next ten years, the City of Ventura anticipates increasing the amount of recycled water used in agricultural and residential applications. The City of Ventura is currently reviewing the use of recycled water. The City of Ventura is currently reviewing the use of recycled water. The City of Ventura is currently reviewing the use of recycled water. ~~at a price~~

| TABLE 10-11 CURRENT (2016) ESTIMATE OF SUPPLY SANTA CLARA RIVER WATERSHED | |
|---------------------------------------------------------------------------------|--------------------|
| Supply Source | Annual Volume (AF) |
| Surface Water, Santa Clara River ¹ | 0 |
| Imported Water, City of Oxnard from Calleguas ¹ | 12,000 |
| Recycled Water | 10,200 to 19,700 |
| Groundwater (see Table 10-10) | 136,400 to 171,000 |
| Low Estimate (rounded to nearest 100 AF) | 158,400 |
| High Estimate (rounded to nearest 100 AF) | 202,700 |

1. UWCD directly delivers approximately 12,000 AFY to agricultural users in the Calleguas Creek Watershed. This water is diverted in the Santa Clara Watershed but is a supply in the Calleguas Creek Watershed.

Water Suppliers

There are six major water suppliers serving more than 1000 persons in the Ventura County portion of the Santa Clara River Watershed as well as 74 smaller water systems and irrigation companies. Persons or businesses in the Watershed are also served by private wells and surface water diversions. The major water supplies are documented in Table 10-12 and are shown in Figure 10-4.

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**TABLE 10-12
MAJOR WATER SUPPLIERS
SANTA CLARA RIVER WATERSHED**

| Supplier/Primary Source(s) | Type | Area Served | Estimated Population Served | Annual Water Supplied* |
|----------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------|
| Castaic Lake Water Agency Imported water and local groundwater | Special District | The Castaic Lake Water Agency service area extends into Ventura County but at the current time Castaic Lake Water Agency does not supply any water to Ventura County. | NA | NA |
| City of Fillmore Groundwater | City | City of Fillmore north of Santa Clara River, east of Sespe Creek. | 18,600 | ~ 3,400 AF |
| City of Oxnard Imported water, groundwater, recycled water | City | City of Oxnard and County unincorporated area along Hueneme Road to Naval Base Ventura County. Excludes Channel Islands Beach. | 193,654 | ~28,600 AF |
| City of Santa Paula Groundwater | City | Approximately 4.5 square miles (~2,880 acres) within the City of Santa Paula. | 29,000 | ~4,400 AF |
| United Water Conservation District Surface water, imported water, groundwater | Special District | 333 square miles (~ 213,120 acres) in Santa Clara River Valley (portion within Ventura County) and the Oxnard Plain. | ** | ** |
| Ventura Water Lake Casitas water, Ventura River, groundwater (Oxnard Plain, Mound, Santa Paula Basins), recycled water | City | City of Ventura and 1.5 square miles (960 acres) within City's sphere of influence. City falls within both the Ventura and Santa Clara Watersheds. | *** | *** |

*Estimated based on records of water supplied 2010 to 2015, rounded to nearest 100 AF. Does not account for planned future expansion of demands and supplies.

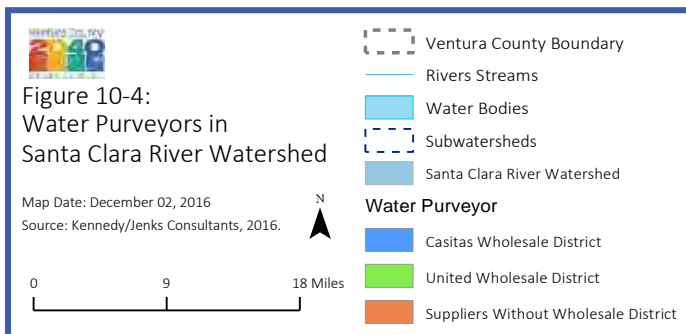
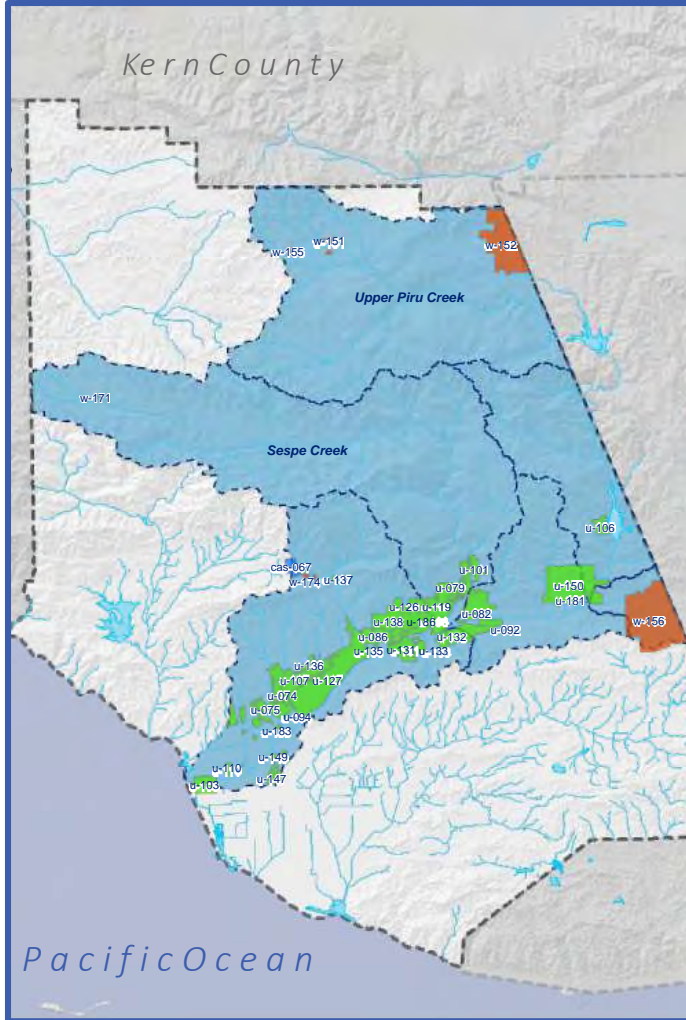
**United Water Conservation District provides groundwater recharge and water to retail water agencies, to avoid double counting, information is only listed for retail water agencies.

*** City of Ventura information is described under Ventura River Watershed, to avoid double counting no population or water supply is provided in this table.

Source: UWCD 2016, City of Ventura 2016a and 2016b, City of Fillmore 2005 and 2016, City of Oxnard 2016, City of Santa Paula 2011.

WATER PURVEYORS

| UNITED WHOLESALE DISTRICT | |
|--------------------------------------|----------------------------------------------|
| SUPPLIER | WATER COMPANY |
| United (u-074) | Aliso MWC |
| United (u-075) | Alta MWC |
| United (u-076) | Beedy Street Well |
| United (u-079) | Brownstone MWC |
| United (u-082) | City of Fillmore |
| United (u-082) | City of Fillmore |
| United (u-084) | Cloverdale MWC |
| United (u-086) | Community MWC |
| United (u-091) | El Rio Processing |
| United (u-092) | Elkins Ranch Company |
| United (u-094) | Farmers Irrigation Company |
| United (u-095) | Fillmore Irrigation Company |
| United (u-096) | Fillmore West Mobile Home Park |
| United (u-101) | Goodenough MWC |
| United (u-103) | Coastal Berry |
| United (u-104) | Alger Family Trust |
| United (u-106) | Lake Piru Recreation Area |
| United (u-107) | Limoneira Associates |
| United (u-108) | Linda Vista Junior Academy |
| United (u-109) | Middle Road MWC |
| United (u-110) | Montalvo MWC |
| United (u-119) | Rancho Sespe |
| United (u-122) | Rio Plaza Water Company |
| United (u-123) | Rio Real/Rio del Valle Schools |
| United (u-126) | San Cayetano MWC |
| United (u-127) | City of Santa Paula |
| United (u-129) | Sherwin Acres MWC |
| United (u-131) | South Mountain MWC |
| United (u-132) | Southside Improvement Company |
| United (u-133) | Storke MWC |
| United (u-134) | Strickland MWC |
| United (u-135) | Teague-McKevett Company-Limoneira |
| United (u-136) | Thermal Belt MWC |
| United (u-137) | Thomas Aquinas College |
| United (u-138) | Timber Canyon MWC |
| United (u-139) | Tobock Ranch MWC |
| United (u-145) | G. P. Resources |
| United (u-147) | Vineyard Ave Acres MWC |
| United (u-148) | Vineyard Ave Estates |
| United (u-149) | Vineyard MWC |
| United (u-150) | Warring Water Service |
| United (u-181) | Piru MWC |
| United (u-183) | Ventura County Property Administrator |
| United (u-185) | Hardscrabble MWC |
| United (u-186) | Sespe Agricultural Water |
| United (u-192) | Citrus MWC |
| United (u-202) | Rancho Sespe Workers Improvement Association |
| United (u-203) | Toland Road Water System |
| CALLEGUAS WHOLESALE DISTRICT | |
| SUPPLIER | WATER COMPANY |
| Casitas (cas-067) | Silar MWC |
| SUPPLIERS WITHOUT WHOLESALE DISTRICT | |
| SUPPLIER | WATER COMPANY |
| None (w-151) | Greeleaf Springs Water System |
| None (w-152) | Antelope Valley East Kern Water Agency |
| None (w-152) | East Kern Water Agency |
| None (w-155) | Camp Three Falls |
| None (w-156) | Castaic Lake Water Agency |
| None (w-168) | New Camp Barlett |
| None (w-171) | Pine Mountain Inn |
| CASITAS WHOLESALE DISTRICT | |
| SUPPLIER | WATER COMPANY |
| None (w-174) | Sweetwater Spring Ranch |



Section 10.4: Existing Conditions
10-46

Estimate of Demand

The data described in this section is based on the V C W P Demand on the Watershed Program Data and the results of the Countywide Demand Assessment conducted in the County of Ventura in 2013. The Watershed Demand Study 2015 Results of the Study for the Santa Clara Watershed are provided in Table 10.

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| TABLE 10-13 ESTIMATED SANTA CLARA RIVER WATERSHED DEMAND | | | |
|-------------------------------------------------------------|--------------------------------|-----------------------------|-------------------|
| Watershed/Sub-watershed | Total Agricultural Demand (AF) | Total Municipal Demand (AF) | Total Demand (AF) |
| Hall Canyon/Arundel | 815 | 9,924 | 10,739 |
| Ormond Beach | 2,797 | 22,913 | 25,710 |
| Santa Clara River | 114,919 | 31,284 | 146,203 |
| Subtotal (Rounded to nearest 100 AF) | 118,500 | 64,100 | 182,600 |

Source: Hydrometrics 2015. Table 6.

Note: Table 10 shows the distribution of demands. Agricultural demand is the most significant, followed by municipal demand.

Demand Management

Table 10 summarizes the various water conservation efforts undertaken in the Santa Clara River Watershed. Table 10 summarizes demand management measures undertaken under normal conditions and less-extractive demand efforts during drought periods.

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Comparison of Supply and Demand

Water availability is estimated to be 158,400 AF for 2027. The Santa Clara Watershed is estimated to have a peak demand of approximately 182,600 AF. The difference between supply and demand is approximately 24,200 AF. The difference between supply and demand is approximately 24,200 AF. The difference between supply and demand is approximately 24,200 AF.

Water-Related Challenges

Below are the water-related challenges for the Santa Clara River Watershed as of 2016:

**TABLE 10-14
DEMAND MANAGEMENT MEASURES IN SANTA CLARA RIVER WATERSHED**

| Agency | Conservation Measures in Effect at All Times | | | | | | | Conservation Measures that May Be Implemented in Drought | | | | |
|------------------------------------|----------------------------------------------|--------------------------|----------|----------------------|-----------------------------------------------|-----------------------------------------------|-------------------------|----------------------------------------------------------|--------------------------------------------|---------------------------------|-------|-------------------------------------|
| | Public Information and Outreach | Water Waste Prohibitions | Metering | Volume-Based Pricing | Water Efficiency Surveys Offered to Customers | Rebates for High Efficiency Plumbing Fixtures | Turf Removal Incentives | Drought Surcharge | Limitations on Irrigation/Outdoor Watering | Mandatory Reductions/Allocation | Fines | Suspension of new water connections |
| City of Fillmore | | X | X | X | | | | X | X | | | |
| City of Oxnard | X | X | X | X | | X | X | | X | X | X | X |
| City of Santa Paula | X | X | X | X | | | | | X | | | |
| Ventura Water | X | X | X | X | X | X | X | X | X | X | X | X |
| United Water Conservation District | X | | X | X | | | | | | X* | X | |

*UWCD’s groundwater allocation is subject to the Fox Canyon GMA. In the event of reductions from FCGMA, UWCD informs their retail agencies of the reductions.
Sources: City of Oxnard 2016; City of Ventura 2016b; United Water Conservation District 2016.

Water Resources

2040 General Plan

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Coastal Groundwater Overdraft

Groundwater overdraft in the Oxnard Plain dropped below sea level as the 1940s. Overdraft conditions now persist in the southern and eastern portions of the Plain and the annual overdraft is estimated to be 200,000 to 250,000 A FY U W C D 2017 by The estimated overdrafts for seawater intrusion and push the area of overdraft subsidence.

~~Oxnard~~
~~est~~

Sea Water Intrusion

The low water level in the Oxnard Plain for seawater intrusion in the center of the freshwater aquifers. The USGS and U W C D have documented the inland movement of seawater adjacent to the Hueneme and Mugu submarine canyons.

Water for Environmental Purposes

U W C D diverts San Cár River water to the Freeman Division to recharge groundwater basins and for direct delivery to agricultural uses. U W C D provides bypass flows to the Freeman Division for the upstream and downstream main of the Southern California State Canal July 2008 the National Marine Fisheries Service NMFS issued a Biological Opinion B O J that concluded that operations at the Freeman Division would jeopardize the continued existence of the Southern California R in the San Cár River U W C D is developing a mitigation plan and in consultation with NMFS. The result bypass flows are unknown but estimated to be the current bypass flow regime has decreased diversions and hence water supply by up to 22500 A FY through significant from year to year personnel communication. Robert Richardson United Water Conservation District

Quality

The Los Angeles RW QCB has identified the San Cár River downstream of Point Creek having water quality impairment and bacteria. The Los Angeles RW QCB has identified runoff from residential and commercial activities as the source of the bacterial load. The bacteria is found in sediments and is a potential source of groundwater contamination. The bacteria is a food web source and is a potential source of human water contamination. The bacteria is a potential source of contamination of the San Cár River by pathogens and is a potential source of contamination of the San Cár River by pathogens and is a potential source of contamination of the San Cár River by pathogens. Some waterborne pathogens are associated with enteric fever and bacterial meningitis. A bacterial load is a potential source of contamination of the San Cár River by pathogens and is a potential source of contamination of the San Cár River by pathogens. The bacteria is a potential source of contamination of the San Cár River by pathogens and is a potential source of contamination of the San Cár River by pathogens.

Calleguas Creek Watershed

The Calleguas Creek watershed is located in the southeastern portion of Ventura County and drains an area of approximately 343 square miles (21,920 acres). The San Susana and Ok Ridge Mountains form the northern boundary and the southern boundary is defined by the Santa Ines and Santa Maria Mountains. The watershed is bounded by the Santa Ines and Santa Maria Mountains. The watershed is bounded by the Santa Ines and Santa Maria Mountains. The watershed is bounded by the Santa Ines and Santa Maria Mountains.

Long-term monitoring by the Ventura County Water Agency shows that Calleguas Creek watershed cycles through wet and dry periods and does not have a common "normal" season.

Background Report

County of Ventura

Possible form of rainfall about 85 percent of the rainfall occurs from November to March during the peak of the monsoon. The 2004 National Oceanic and Atmospheric Administration (NOAA) - summer high average of 64°F and winter average of 53°F during the peak of the monsoon. The 2004 high temperatures can exceed 104°F in the summer and drop below freezing in the winter (Western Regional Climate Center Station 048904 Thousand Oaks 1 SW).

The watershed includes the cities of Oxnard (including the Port of Hueneme) and Moorpark in Ventura County, Thousand Oaks, and unincorporated areas of Ventura County according to the Watershed of Ventura County - 2014 and uses include watershed as follows:

~~CVC-related section~~

- Undeveloped land 50%
- Agriculture 25%
- Urban uses 25%

Surface Water

The major surface water features include the Lake Bard Arroyo, Simi Arroyo, Las Posas Creek, Conejo Creek, and Honda Barranca/Beardsley Wash/Revolon Slough system.

Lake Bard is an artificial reservoir constructed to store water from the Moorpark Water District of Southern California. This water is used to meet emergency demands of Lake Bard and is operated by the Los Angeles Municipal Water District (2016).

Arroyo Simi/Arroyo Las Posas/Calleguas Creek. This series of creeks drain from and urban runoff from the Simi Valley east to Las Posas Valley through the eastern portion of the Oxnard Plain and urban runoff from the Arroyo Simi. This discharge from the Simi Valley is collected by the City of Simi Valley and effluent from the Simi Valley Wastewater Treatment Plant. Under certain conditions the Ventura County Wastewater District #1 Moorpark Wastewater Treatment Plant and the Calleguas Wastewater Treatment Plant may discharge effluent to the Conejo Creek during the peak of the monsoon (2004).

~~and a well~~

Conejo Creek System. The Arroyo Santa Rosa, Arroyo Conejo, and Conejo Creek make up the drainage system. The Santa Rosa Valley portion of the Conejo Creek is in the City of Thousand Oaks and is collected by the system. This system carries runoff from the Honda Barranca/Beardsley Wash/Revolon Slough and the Santa Rosa Wastewater Treatment Plant.

The Honda Barranca/Beardsley Wash/Revolon Slough. The western portion of the Las Posas Valley portion of the Conejo Creek is drained by the Honda Barranca/Beardsley Wash/Revolon Slough. The major flow of water comes from agricultural runoff during the peak of the monsoon (2004).

Groundwater

There are multiple groundwater basins within the Conejo Creek Watershed. These include the Las Posas Valley Basin, Moorpark Basin, and the Las Posas Valley Basin.

Water Resources

2040 General Plan

County of Ventura

10

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Important Recharge Areas

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Imported Supplies

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Other Supplies

W... conj... 8 C... w... W...

Water Quality

The L A - os - A - ngals - RW - QC B has identified beneficial uses for the C dgu as C eek W ashed as wells
situ as and id u s h m e s h e a s d o c u m e n t e d i n **Table 10-15** The following TM D L s

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- C dgu as C eek S a l - T M D L e f f e c t e D e c e m b e r 2 2 0 0 8
- R e v o l u S o u t h a n d B e a r s t y W a s h T r a s h - T M D L e f f e c t e M a r c h 2 0 0 8
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- C dgu as C eek O r g a n o c h l o r i n e P e s t i c i d e s a n d P C B s - T M D L e f f e c t e M a r c h 2 4 2 0 0 6
- O x n a d i n 3 P e s t i c i d e s P C B s a n d S e d i m e n t T o x i c i - a p p r o v e d b y E P A a p p r o v e d O c t o b e r 6 , 2 0 1 1
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h a d i n t o t h e e x i s t i n g T M D L s c e r T M D L s m a y b e d e v e l o p e d i f e n d i n p i n e s t i l e C dgu as C eek a n d s i t u a t i o n s i n c h l o a m o n b o r n c o p e b e a c i n g n u t s e d i m e n t , a n d s u f f e a w e l l s e a t e s a n d p e s t i c i d e s u c h a s D D T D i l u a n d T o x a r e n e . T h e C h m e l k i n d s H a b o r a n t i d b y d e a d a n d z i n c i n s e d i m e n t a n d ; s e v e n O x n a d a b e a c h e s a n t i d b y b o t a

Available Supplies

The w a r s u p p l i e s f o r t h e C dgu as C eek W a s h e d c o n s i s t o f i m p o r t e d w a r f r o m C dgu a s , g r o u n d w a r a m i o r a n o u n t o f p o n t s u f a c e w a r p o n t s u f a c e w a r p o n t e d b y U W C D f r o m t h e F e e m a n D i v e r s i o n d e l e e d o a g r i c u l t u r e s i n t h e P e a s a n t V i l l a g e B a n a n d r e c y c l e d **Table 10-17**.

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Imported Water

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**TABLE 10-15
DESIGNATED BENEFICIAL USES CALLEGUAS CREEK WATERSHED**

| WATERSHED ^a | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | MIGR | SPWN | SHELL | WET ^b |
|---------------------------------------------------------------|-----|-----|------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|------------------|
| CALLEGUAS-CONEJOCREEK WATERSHED | | | | | | | | | | | | | | | | | | | | | | |
| Calleguas Creek Estuary ^c | | | | | | | P | | E | | | | | E | | E | | Ee,p | Ef | Ef | | E |
| Calleguas Creek Reach 1 | | | | | | | | | | | | | | | | | | | | | | |
| Mugu Lagoon ^c | | | | | | | E | | Ed | | | | | E | E | Eo | E | Ee,p | Ef | Ef | Ed | E |
| Calleguas Creek Reach 2 | | | | | | | | | | | | | | | | | | | | | | |
| Calleguas Creek (Estuary to Potrero Rd.) | P* | | | E | E | E | | | | | E | E | | | | E | | Ep | | | | E |
| Calleguas Creek Reach 3 | | | | | | | | | | | | | | | | | | | | | | |
| Calleguas Creek (Potrero Rd. to Conejo Creek) | P* | E | E | E | E | | | | | | E | | | | | E | | | | | | |
| Calleguas Creek Reach 4 | | | | | | | | | | | | | | | | | | | | | | |
| Revolon Slough (Calleguas Creek Rch 2 to Pleasant Valley Rd.) | P* | P | | E | E | | | | | | E | | | | | E | | | | | | E |
| Revolon Slough (Pleasant Valley Rd. to Central Ave.) | P* | P | | E | E | | | | | | E | | | | | E | | | | | | E |
| Calleguas Creek Reach 5 | | | | | | | | | | | | | | | | | | | | | | |
| Beardsley Channel (above Central Ave.) | P* | | | | | E | | | | | E | | | | | E | | | | | | |
| Calleguas Creek Reach 6 | | | | | | | | | | | | | | | | | | | | | | |
| Arroyo Las Posas (Calleguas Creek Rch 3 to Long Canyon) | P* | P | P | P | E | | | | | | E | P | | | | E | | | | | | |
| Arroyo Las Posas (Long Canyon to Hitch Rd.) | P* | P | P | P | E | E | | | | | E | P | | | | E | | | | | | |
| Calleguas Creek Reach 7 | | | | | | | | | | | | | | | | | | | | | | |
| Arroyo Simi (Hitch Rd. to Happy Camp Canyon) | P* | I | | | I | I | | | | | I | | | | | E | | E | | | | |
| Arroyo Simi (Happy Camp Canyon to Alamos Canyon) | P* | I | | | I | I | | | | | I | | | | | E | | E | | | | |
| Arroyo Simi (Alamos Canyon to Tapo Canyon Creek) | I* | I | | | I | I | | | | | I | | | | | E | | | | | | |
| Arroyo Simi (above Tapo Canyon Creek) | I* | I | | | I | I | | | | | I | | | | | E | | | | | | |
| Calleguas Creek Reach 8 | | | | | | | | | | | | | | | | | | | | | | |
| Tapo Canyon Creek (above Arroyo Simi) | I* | | P | P | I | | | | | | I | | | | | E | | | | | | |
| Calleguas Creek Reach 9A | | | | | | | | | | | | | | | | | | | | | | |
| Conejo Creek (Camrosa Diversion to Camarillo Rd.) | P* | E | E | E | E | | | | | | E | | | | | E | | | | | | |
| Conejo Creek (Camarillo Rd. to Arroyo Santa Rosa) | P* | | | | I | I | | | | | I | | | | | E | | | | | E | |

**TABLE 10-15
DESIGNATED BENEFICIAL USES CALLEGUAS CREEK WATERSHED**

| WATERSHED ^a | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | MIGR | SPWN | SHELL | WET ^b |
|----------------------------------------------------------------|-----|-----|-------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|------------------|
| CALLEGUAS-CONEJOCREEK WATERSHED | | | | | | | | | | | | | | | | | | | | | | |
| Calleguas Creek Reach 9B | | | | | | | | | | | | | | | | | | | | | | |
| Conejo Creek (Calleguas Creek Rch 3 to Camrosa Diversion) | P* | E | E | E | E | | | | | | E | | | | | E | | | | | | |
| Calleguas Creek Reach 10 | | | | | | | | | | | | | | | | | | | | | | |
| Arroyo Conejo (Conejo Creek to North Fork Arroyo Conejo) | P* | | | | I | I | | | | | I | | | | | E | | E | | | | |
| Calleguas Creek Reach 11 (Arroyo Santa Rosa) | | | | | | | | | | | | | | | | | | | | | | |
| Arroyo Santa Rosa (above confl. with Conejo Creek) | P* | | | | I | I | | | | | I | | | | | E | | | | | | |
| Calleguas Creek Reach 12 | | | | | | | | | | | | | | | | | | | | | | |
| North Fork Arroyo Conejo (above confl. with Arroyo Conejo) | P* | | | E | E | | | | | | E | | | | | E | | | | E | | |
| Calleguas Creek Reach 13 | | | | | | | | | | | | | | | | | | | | | | |
| Arroyo Conejo (above confl. with North Fork Arroyo Conejo) | P* | | | | I | I | | | | | I | | | | | E | | | | | | |
| Gillibrand Canyon Creek (Tapo Canyon Creek to Windmill Canyon) | P* | | | | I | I | | | | | I | | | | | E | | | | | | |
| Gillibrand Canyon Creek (above Windmill Canyon) | P* | | | | I | I | | | | | I | | | | | E | | | | | | |
| Lake Bard (Wood Ranch Reservoir) | E | E | E | E | P | | | | | | E | | | | | E | | | | | | |

E: Existing beneficial use
P: Potential beneficial use
I: Intermittent beneficial use
E,P, and I: shall be protected as required
* Asterisked MUN designations are designated under SB 88-63 and RB 89-03. Some destinations may be considered for exemption at a later date.

a: Waterbodies are listed multiple times if they cross hydrologic area or subarea boundaries. Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.
b: Waterbodies designated as WET may have wetlands habitat associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.
c: Coastal waterbodies which are also listed in inland Surface Waters Tables (2-1) or in Wetlands Table (2-4).
d: Limited public access precludes full utilization.
e: One or more rare species utilizes all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.
f: Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.
o: Marine habitats of the Channel Islands and Mugu Lagoon serve as pinniped haul-out areas for one or more species (i.e. sea lions).
p: Habitat of the Clapper Rail.

Source: Table 2-1. Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties (electronic copy accessed December 27, 2016).

Groundwater

The estimated groundwater supply for the Calleguas Creek Watershed Area is based on the SGM Assessment which is based on the 1016 per centile of the groundwater based on available difference in the groundwater supply. The estimated groundwater supply and consensus on groundwater supply is approximately 300 AFY of groundwater in the City of Thousand Oaks region developed from the Conejo Groundwater Basin.

Surface Water

The Conejo Creek system owned and operated by Caltrans and does not provide surface water to the watershed from the creek system. The average flow is 7920 AFY. The SGM Assessment estimated that surface water uses may divert up to as much as 300 AFY from the watershed (WRCB EWRMS Database).

**TABLE 10-16
GROUNDWATER SUPPLY ESTIMATES
CALLEGUAS CREEK WATERSHED**

| Basin | Estimate of Groundwater Budget (AFY) | Past Groundwater Extractions (AFY) | Notes |
|------------------------------------|--------------------------------------|------------------------------------|-------|
| Pleasant Valley Basin | 11,418 | 18,500 | 1 |
| Arroyo Santa Rosa | 3,325 to 8,410 | 5,000 | 2 |
| Las Posas Valley | 29,280 | 30,560 | 3 |
| Simi Valley | 5,400 | 5,500 | 4 |
| Tapo/Gillibrand | 1,350 | 550 | 5, 6 |
| Tierra Rejada | 1,300 | 1,500 | 7 |
| Low Estimate Groundwater Supplies | | 51,300 | 8 |
| High Estimate Groundwater Supplies | | 82,300 | 8 |

1. DWR 2003, Basin 4-006.
2. DWR 2003, Basin 4-007.
3. DWR 2003, Basin 4-008.
4. DWR 2003, Basin 4-009.
5. City of Simi Valley, Geohydrologic Evaluation of Maximum Perennial Yield, Tapo Canyon Tributary SubArea (September 2006)
6. Waterworks District 8. 2016. 2015 Urban Water Management Plan. June.
7. DWR 2003, Basin 4-015.
8. Rounded to nearest 100 AF.

Recycled Water

Based on recent completed urban water management plans by water providers in the Calleguas Creek Watershed, the amount of recycled water in the Calleguas Creek watershed has been projected to increase from 13,931 AF in 2016 to 196,000 AF by 2025.

| TABLE 10-17 CURRENT (2016) ESTIMATE OF SUPPLY CALLEGUAS CREEK WATERSHED | |
|--------------------------------------------------------------------------------------|--------------------|
| Supply Source | Annual Volume (AF) |
| Surface Water, Conejo Creek Diversion ¹ | 11,324 |
| Imported Water Calleguas and UWCD Deliveries from Santa Clara Watershed ² | 119,417 |
| Recycled Water ³ | 13,931 |
| Groundwater (see Table 10-16) | 51,300 to 82,300 |
| Low Estimate (rounded to nearest 100 AF) | 196,000 |
| High Estimate (rounded to nearest 100 AF) | 227,000 |

1. FCGMA 2016. Preliminary Draft Pleasant Valley Groundwater Sustainability Plan Tasks 6 – 10 Report. May.
2. Supplies from Calleguas are anticipated imported water supplies less 12,000 AF expected to go to Oxnard in the Santa Clara Watershed (CMWD 2016, Oxnard 2016). Supplies from UWCD are on average 9,417 AF to the Calleguas Creek Area from the Santa Clara Watershed (FCGMA 2016).
3. Camrosa 2016; Camarillo 2016, VCWWD8 2016, and VCWWD1 2016.

Suppliers

The area is served by 52 small water systems and 52 large water suppliers. The watershed is also served by private well and surface water diversions. The major water suppliers are documented in Table 10-18 and the unincorporated County. These are mapped in Figure 10-5.

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Background Report

County of Ventura

**TABLE 10-18
MAJOR WATER SUPPLIERS - CALLEGUAS CREEK WATERSHED**

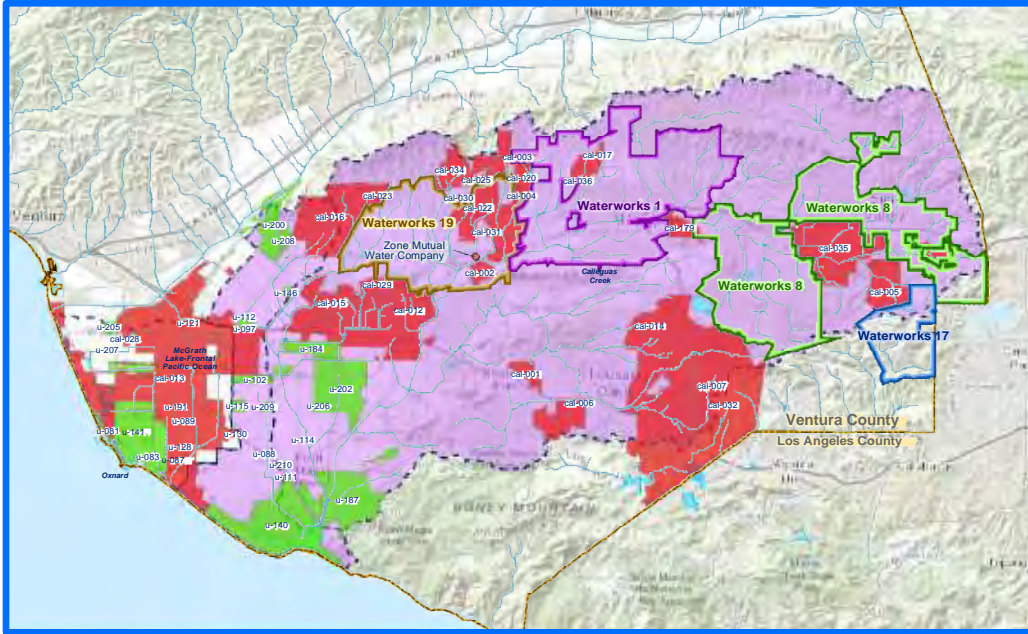
| Supplier/Primary Source(s) | Type | Area Served | Estimated Population Served | Annual Water Supplied* |
|------------------------------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------|
| Calleguas Municipal Water District Imported water | Special District | Calleguas Creek Watershed | ** | ** |
| City of Simi Valley/Ventura Co. Waterworks District 1 Imported water, groundwater, recycled water | City | Approximately 68 percent of the developed portion of the City of Simi Valley and unincorporated areas located southeast and north of the City boundary. | ~97,300 | ~ 23,800 AF |
| City of Oxnard Imported water, groundwater, recycled water | City | City of Oxnard, but excluding Channel Islands Beach and County unincorporated area along Hueneme Road to Naval Base Ventura County. | *** | *** |
| City of Thousand Oaks Imported water | City | Approximately 36 percent of the City of Thousand Oaks | ~53,300 | ~12,600 AF |
| City of Camarillo Imported water, groundwater, recycled water | City | 14 square miles (8,960 acres) within the western portion of the City, about 75 percent of the City of Camarillo | ~42,900 | ~8,600 AF |
| Port Hueneme Water Agency Groundwater, imported water | City | Generally, the City of Port Hueneme | ~22,000 | ~5,000 AF |
| Camrosa Water District Imported water, groundwater, surface water, recycled water | Special District | 31 square miles (19,840 acres) within the eastern portion of the City of Camarillo and Santa Rosa Valley. | ~30,000 | ~14,400 AF |
| Ventura County Waterworks District No. 1 Imported water, groundwater, recycled water | Special District | Generally, the City of Moorpark and ag lands between Camarillo and Thousand Oaks (33.7 square miles / 21,568 acres). | ~36,000 | ~11,800 AF |
| Ventura County Waterworks District No. 19 Imported water, groundwater | Special District | 23 square miles (14,720 acres) of the Somis community and surrounding rural areas. | ~3,300 | ~3,000 AF |
| Oak Park Water Service Imported water | Special District | Oak Park community, encompassing 4.1 square miles (2,624 acres). | ~12,200 | ~2,200 AF |
| California American Water Company – Ventura District Imported water | Private Company | Approximately half of Thousand Oaks (25 sq. mi.) and a small portion of unincorporated county in the Las Posas Country Club area. | ~63,400 | ~15,200 AF |
| California Water Service Company – Westlake District Imported water, recycled water | Private Company | 13 square miles (8,320) in south east City of Thousand Oaks | ~19,500 | ~8,100 AF |
| Golden State Water Company – Simi Valley Imported water, groundwater | Private Company | A portion of the City of Simi Valley and a portion of unincorporated Ventura County including Runkle Canyon | ~45,200 | ~6,500 AF |
| Pleasant Valley Mutual Water Company Imported water, groundwater | Private Company | Northwestern portion of the City of Camarillo | ~7,500 | ~900 AF |
| Crestview Mutual Water Company Imported water, groundwater | Private Company | Western portion of the City of Camarillo | Unknown | ~900 AF |
| <u>Zone Mutual Water Company</u> <u>Groundwater, imported water</u> | <u>Private Company</u> | <u>A private agricultural water supplier serving the unincorporated area around Somis.</u> | <u>Ag water supplier</u> | <u>~5,000-6,000 AF</u> |

*Estimated based on records of water supplied 2010 to 2015, rounded to nearest 100 AF. Does not account for planned future expansion of demands and supplies.

**Calleguas Municipal Water District is a wholesale supplier, to avoid double counting information is only provided for retail water agencies.

***Oxnard falls across two watersheds. Oxnard population and supply provided as part of the Santa Clara River Watershed discussion.

Source: Calleguas Municipal Water District 2016, City of Simi Valley 2016, City of Thousand Oaks 2016, Ventura County Waterworks District No. 1 2011 and 2016, City of Camarillo 2011 and 2016, Port Hueneme Water Agency 2011 and 2016, California American Water Company 2012 and 2016, California Water Service Company 2011 and 2016, Golden State Water Company 2011 and 2016.



| WATER PURVEYORS | |
|---------------------------|---------------------------------------------------|
| UNITED WHOLESALE DISTRICT | |
| SUPPLIER | WATER COMPANY |
| United (u-016) | Del Norte MWC |
| United (u-080)* | Camarillo Airport Utility Enterprise |
| United (u-081)* | Channel Islands Beach Community Services District |
| United (u-083)* | City of Port Hueneme |
| United (u-087) | Cypress MWC |
| United (u-088) | Sunshine Trailer Park |
| United (u-089) | Dempsey Road MWC |
| United (u-093) | Evergreen Trailer Park |
| United (u-097) | Garden Acres MWC |
| United (u-099) | Glennview Mobile Home Park |
| United (u-102) | Hollywood, Inc. |
| United (u-111) | Navalair Mobilehome Court |
| United (u-112) | Nyeland Acres NWC |
| United (u-114) | Ocean View School District |
| United (u-115) | Oxnard Lemon MWC |
| United (u-121) | Rio Manor MWC |
| United (u-128) | Saviors Road MWC |
| United (u-130) | Silver Wheel Ranch Mobile Home Park |
| United (u-140)* | U.S.N.A.S. - Point Mugu |
| United (u-141)* | U.S.N.C.B.C. - Port Hueneme |
| United (u-146) | Ventura School |
| United (u-184) | Ventura County Dept of Airports |
| United (u-187) | Guadalasca MWC |
| United (u-191) | Santa Clara High School |
| United (u-200) | Lloyd-Butler MWC |
| United (u-202) | Rancho Sespe Workers Improvement Association |
| United (u-204) | Thornhill MWC |
| United (u-205) | Santa Clara Resources |
| United (u-206) | Houweling's Nursery |
| United (u-207) | Pyramid Flowers |
| United (u-208) | Saticoy Country Club |
| United (u-209) | Vujovich Ranch |
| United (u-210) | Bouquet Multimedia |

* Denotes agencies within the wholesale area of both United and Calleguas

| CALLEGUAS WHOLESALE DISTRICT | |
|------------------------------|--------------------------------------|
| SUPPLIER | WATER COMPANY |
| Calleguas (cal-001) | Academy MWC |
| Calleguas (cal-002) | Arroyo Las Posas MWC |
| Calleguas (cal-003) | Balcom Bixby MWA |
| Calleguas (cal-004) | Berylwood Heights MWC |
| Calleguas (cal-005) | Brandeis-Bardin MWC |
| Calleguas (cal-006) | Conejo Trailer Park |
| Calleguas (cal-007) | California Water Service Company |
| Calleguas (cal-012) | City Camarillo Water District |
| Calleguas (cal-013)* | City of Oxnard |
| Calleguas (cal-014) | City of Thousand Oaks |
| Calleguas (cal-015) | Crestview MWC |
| Calleguas (cal-017) | Epworth MWC |
| Calleguas (cal-020) | Fuller Falls MWC |
| Calleguas (cal-022) | Sunshine Ranch |
| Calleguas (cal-023) | La Loma Ranch MWC |
| Calleguas (cal-025) | Las Lomas Water Systems |
| Calleguas (cal-028) | Oxnard Union High School District |
| Calleguas (cal-029) | Pleasant Valley MWC |
| Calleguas (cal-030) | Rancho Canada Water Company |
| Calleguas (cal-031) | Tom Grether Farms, Inc. |
| Calleguas (cal-032) | Russell Valley MWD |
| Calleguas (cal-034) | Solano Verde MWC |
| Calleguas (cal-035) | Golden State Water Co. - Simi Valley |
| Calleguas (cal-036) | Thermic MWC |
| Calleguas (cal-042) | Waters Road Users Group |
| Calleguas (cal-179) | Butler Ranch MWC |
| Calleguas (cal-190) | Water Canyon Water Well |
| | Zone Mutual Water Company |

* Denotes agencies within the wholesale area of both United and Calleguas

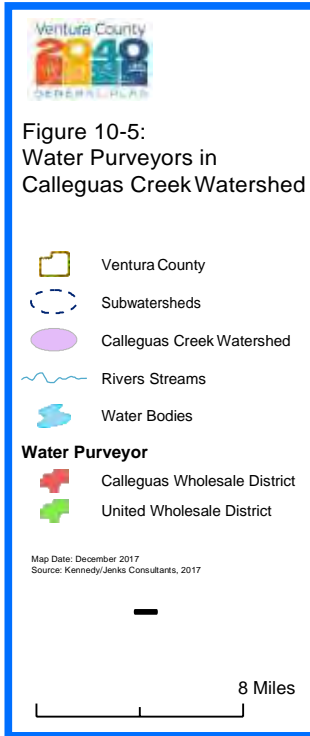


Figure 10-5:
Water Purveyors in
Calleguas Creek Watershed

Background Report

County of Ventura

Estimate of Demand

As described previously in 2014, the V C W P D C County of Ventura Water Planning Department undertook an estimate of Countywide water demand documented in the County of Ventura 2013 Water Supply and Demand Study 2015. Results of the study for the Calleguas Creek Watershed are provided in [Table 10-19](#).

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| Watershed/Sub-watershed | Total Agricultural Demand (AF) | Total Municipal Demand (AF) | Total Demand (AF) |
|--------------------------------------|--------------------------------|-----------------------------|-------------------|
| Calleguas Creek | 112,701 | 89,335 | 202,036 |
| Malibu Creek | 1,083 | 19,291 | 20,374 |
| South Coast | 86 | 2,035 | 2,121 |
| Subtotal (rounded to nearest 100 AF) | 113,900 | 110,700 | 224,600 |

Source: Hydrometrics 2015. Table 6.

Comparison of Supply and Demand

Estimated supply for the Calleguas Creek Watershed ranges from 196,000 to 227,000 AF in any given year. This supply of course varies given drought and operational conditions. Estimated demand is approximately 224,600 AF. The downward estimate of supply is considered a conservative estimate. The upward estimate is considered a conservative estimate.

Water-Related Challenges

Below are the water-related challenges for the Calleguas Creek Watershed as of 2016.

Long-Term Groundwater Overdraft and Increased Salinity

The Pleasant Valley Basin is experiencing overdraft of the U C D 2017 D and groundwater levels and over-pumping in the southern portion of the basin has led to upwelling of brines from high chloride zones U C D 2017 b in the northern Pleasant Valley Basin seabed recharge which is water that has caused increased salinity in the Arroyo L as P oas.

Localize Pumping Depressions

While the West L as P oas Basin groundwater levels have dropped by 325 feet between 1950 and the early 1990s L P U G 2012. The increasing concern regarding groundwater supply and increased production and even more dry wells (L P U G 2012) D-hal-dial-pressed groundwater may indicate areas of poor quality groundwater from surrounding areas.

Heavy Dependence on Imported Water by Urban Users

Imported water makes up 20 percent of Ventura County's water supply. Approximately 75 percent of the County's population receives water imported by Calleguas. Drought conditions and environmental demands on the SW P system could increase reliance on this water supply. Calleguas

Municipal Water and the Pleasant Valley Basin water supply system are in need of more steps to ensure the system's long-term sustainability. Construction of additional water storage reservoirs and the construction of additional surface water intake ponds and water basins as well as

existing water needed during and during special emergency and during multiple
in conditions which otherwise.

SECTION 10.5 TRENDS AND FUTURE CONDITIONS

As documented above, the following are the Venti C or n y a and i
is necessary to develop different plans for Venti C or n y Trends going forward include:

- Increased use of backflow prevention Venti C or n y has abundant sources of ground water
part of the county that the C d g a s C e e k W a s h e d m u c h o f i t o o l i n i
siformu n i p l a n d a g r i c u l t u r e . T w o b a c k f l o w p r e v e n t i o n p r o j e c t s a r e c u r r e n t l y
i n o p e r a t i o n i n t h e c o u n t y . P o t e n t i a l W a r A u t o g r a v i t y B a c k f l o w P r e v e n t i o n
D e m o n s t r a t i o n R o u n d M o u n t a i n D e s i g n O t h e r a g e n c i e s a r e
p r o p o s e d U s e o f b a c k f l o w p r e v e n t i o n w o u l d r e q u i r e c o n n e c t i o n t o s o m e m a n a g e m e n t
p l a n s u c h a s t o p e n d b y t h e C d g a s M u n i c i p a l W a r D e p t .
- Delivery of SW P water to Venti C or n y The C y of V e n t i C o n t i n u e s t o c o o r d i n a t e
M u n i c i p a l W a r D e p t a n d C d g a s a c c o o r d i n a t e d b u i l d a c c o n n e c t i o n t o t h e
S W P .
- Increased use of recycled water The C y of O x n a d h a s c o n s t i t u t e d t h e A d v a n c e d W a r
P l a n F a c i l i t y A W P P r o j e c t s e c a l l e d t h e A W P F , w h i c h w i l l r e c y c l e w a t e r
p r o d u c e d i n t h e f a c i l i t y i n t o s e v e r a l p r o c e s s e s a n d w a t e r c h e n g e a n d p u l p e .
I t c o u l d b e u s e d f o r u s e i n a g r i c u l t u r e . M a n y o t h e r a g e n c i e s i n V e n t i C
o r n y a r p r o p o s i n g i n c r e a s e d u s e o f r e c y c l e d w a t e r a n d d e t e r e c y c l e d w a t e r a g r i c u l t u r e a n d d e m o n s t r a t i o n i n t h e C y o f V e n t i C
i n c l u d e t h e R e c y c l e d W a r M o d e r n R e u s e P r o g r a m w h e r e b y b u s i n e s s e s i n t e n d t o
p r o p e r t y o w n e r s i n t h e C y c a n u s e t h e C y s r e c y c l e d w a t e r i n t h e i r o w n c o m p l e x e s ,
t h e n t h e w a t e r f o r u s e w h i l e t h e C y a g e n c i e s a r e a l o a t e y p u r s u i n g g r o u n d w a t e r
r e c h g e w h e r e c y c l e d w a t e r d i r e c t l y r e u s e o f r e c y c l e d w a t e r .
- Expanded conjunctive use C o n j u n c t i v e u s e o f s u r f a c e a n d g r o u n d w a t e r r e s o u r c e s m a x i m i z e t h e a v a i l a b i l i t y o f
w a t e r s i n C o n j u n c t i v e u s e i n v o l v e s p l a n n e d a n d m a n a g e d o p e n i n g o f a g r i c u l t u r a l
a n d a s u f a c e w a t e r s t o r e s y s t e m u n d e r c o o r d i n a t e d c o n v e y a n c e i n f a c i l i t y W h e n s u f a c e
w a t e r i s a v a i l a b l e i n c h e a r d a n d s t o e d i n a g r i c u l t u r a l f o r t r u s e .
- Increased use of stormwater dry weather runoff collection these are underutilized sources of
s u r f a c e w a t e r a n d a g r i c u l t u r e w a t e r s i n t h e c o u n t y . T h e v i t a l d e s t o m w a t e r c o l l e c t i o n
m e d i a s a n d d i n g c o m p e r m e a b l e p r e v e n t i o n m e a s u r e s a n d r e c h g e i n n o f f .
V a r i o u s a g e n c i e s i n V e n t i C o r n y a r p l a n n i n g a n d c o o r d i n a t i n g i n c r e a s e d u s e o f
s t o r m w a t e r d o c u m e n t e d i n t h e V e n t i C o r n y w a t e r M u n i c i p a l S o r m W a r R e s o u r c e P l a n
(S e p t e m b e r 2 0 1 6) .
- Ocean desalination The C y of V e n t i C h a s i n t e n d e d t o b e a c h C o m m u n i S e r v i c e s D e p t
a n d C d g a s a r e e x p l o r i n g t h e f e a s i b i l i t y o f o c e a n d e s a l i n a t i o n i n t h e C y o f V e n t i C 2 0 1 6 C i t i e n s
d u n d 2 0 1 5 C d g a s 2 0 1 6) .
- Increased efficiency in water use M a y 2 0 1 6 G o v e r n o r B o w n s u e d E x e c u t i v e
O r d e r B 3 7 1 6 w h i c h o l d f o r t h e e s t a b l i s h m e n t o f a n i n t e r a g e n c y w a t e r c o n s e r v a t i o n m e a s u r e s .
D W R a n d t h e S W R C a r e p u b l i c l y e d a s e d a e d a n d d i n g m c o n s e r v a t i o n
f a m e w o r k i n A p r i l 2 0 1 7 b y t h e a y 2 0 1 7 . T h i s f a m e w o r k w i l l i n c l u d e a n e w w a t e r u s e a g e s
b a e d o n s t e n d e n c e .

and all its found coral reefs and seagrass communities in its waters and dune system waters.

- Increased efficiency of water use and reduced effort are being developed and implemented to provide incentives for water users and utilities to conserve water and reduce dependence on groundwater.
- Changes in the operation of surface waters to protect endangered species waters are being implemented and managed in a way that will be less water intensive and urban uses because more flow will need to be defined in ways to protect them.

SECTION 10.6 KEY TERMS

The following terms used in this report are defined as follows:

303(d) List. References section 303(d) of the Clean Water Act where by a state and lies are developed of water bodies that are not designated and not meeting water quality standards. The 303(d) List is used to develop Total Maximum Daily Loads and other water quality mechanisms to improve water quality.

Acre-feet (AF). The amount of water necessary to cover an acre (43,560 square feet) to a depth of one foot. 43,560 cubic feet is equivalent to 32.828 gallons.

Adjudication. The legal process of determining the rights of water users in proceedings and is overseen by a court appointed water master.

Aquifer. A subsurface geological formation that is permeable to conduct groundwater and capable of yielding substantial quantities of water available for use.

Beneficial Uses. The various purposes for which water or aquatic ecosystems may be used. Examples include municipal domestic water supply, agriculture, preservation and protection of areas of special significance, recreation, fish and wildlife, commercial and sporting, estuarine habitat, shoreline protection, groundwater recharge, and other public health and safety. The preservation of rare and endangered species, critical habitat, and other values.

Best Management Practice (BMP). Any practice, technology, process, or other method or measure designed to prevent or reduce pollution.

Conjunctive Use. The use of surface water and groundwater in a way that will not deplete either source from the basin in the long term.

Critical Overdraft. A defined state of groundwater management that is subject to be overdrawn when continuation of present water management practices would probably result in significant adverse environmental or economic impacts.

Coastal Zone. The portion of the land and waters of Ventura County as shown on the "Coastal Zone" maps adopted by the California Coastal Commission.

Groundwater Basin. A n aquifer system of aquifers that is reasonably well defined boundaries and more or less defined areas of recharge and discharge. Refers to subsurface deposits and geology formations that are capable of yielding substantial quantities of water to wells. The Sustainable Groundwater Management Act defines "basin" as ground water basin, defined and defined in Department of Water Resources Bulletin 118 or as modified pursuant to Section 107.22 of the Act.

Integrated Regional Water Management. A comprehensive and collaborative approach for managing water to concurrently achieve social, environmental, and economic objectives. This integrated approach includes the review of investments by considering the spreading multiple benefits and working across jurisdictional boundaries to appropriate geographic areas. Examples of multiple benefits include improved water quality, habitat management, and enhanced ecosystems, and more resilient watersheds. Department of Water Resources 2014 California Water Plan Update (2013).

Mutual Water Company. A private corporation organized for the purposes of delivering water to stockholders and members.

Permanent domestic water supply. A supply of water to be provided by a system or systems approved by a public agency of the State of California. The Environmental Health Division of the Ventura County Resource Management Agency and the Ventura County Public Works Agency in aquifers that are not subject to seasonal and continuous withdrawal equipment of the consumer and maximum demand conditions.

Retail Water Supplier. A water agency provides water to individual customers and end users such as homes and businesses.

Safe Yield. Commonly defined as the maximum quantity of water that can be continuously withdrawn from a reservoir or ground water without causing adverse effects.

State Water Project. The SWP is the state's largest water project in the country was authorized by the California State Legislature in 1959 while construction of most facilities completed by 1973. Today the SWP includes 28 dams and reservoirs, 26 pumping and generating plants and approximately 660 miles of aqueducts. The primary water source for the SWP is the Feather River tributary of the Sacramento River. Storage is provided from Oroville Dam on the Feather River. Downstream, water is pumped to the Sacramento and San Joaquin River Delta. In some SWP supply systems, water is pumped from the northern Delta to the North Bay Aqueduct. The vast majority of SWP supply is pumped from the southern Delta to the 444-mile California Aqueduct. The California Aqueduct conveys water along the west side of the San Joaquin Valley. Edmonson Pumping Plant where water is pumped over the Tehachan Mountains to Southern California.

Stormwater Pollution Control Plan. A plan defining pollution sources from a construction site and describing proposed design and implementation of Best Management Practices to effectively prevent stormwater discharges and reduce pollution from stormwater discharges to the storm drain system to the maximum extent practicable during construction activities.

Stormwater Pollution Prevention Plan. A plan required by a State General Permit for Stormwater Discharges defining pollution sources and describing design and implementation of Best Management Practices to effectively prevent stormwater discharges and reduce pollution from stormwater discharges during activities covered by the General Permit.

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Stormwater Quality Master Plan A plan that defines the goals and describes the design, implementation and implementation of Best Management Practices to effectively prevent stormwater discharges and reduce pollution stormwater discharges to the maximum extent practicable for protection of the stormwater discharge to the storm drain system.

Total Maximum Daily Load. A regulatory pollution load based on a calculation of the maximum amount of pollution that can occur in a water body and the water quality standards so as to protect beneficial uses. The TMDL should be necessary to reduce one or more pollutants. TMDLs can force the implementation of B M P strategies for improvement and the reduction of pollution.

Watershed. A geographic region which has a watershed is a natural drainage area or order water body. A watershed is also referred to as a catchment area.

Wholesale Water Supplier A water agency provides water to other agencies in the region. It provides water to the end users for residential use.

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APPENDIX 10.A: SGMA/CALIFORNIA GOVERNMENT CODE

65350.5. REVIEW AND CONSIDERATION OF GROUNDWATER REQUIREMENTS

Before the adoption of any submittal of a groundwater general plan, the planning agency shall view and consider the following:

- a) A final plan for a groundwater sustainability or groundwater management plan pursuant to P a 27. 4 (commencing with Section 107 20) or P a 27. 5 (commencing with Section 107 50) of Division 6 of the Water Code or groundwater management or related general plan.
- b) A final plan of water.
- c) A non-errand plan by the State Water Resources Control Board pursuant to Chapter 1 (commencing with Section 107 35) of P a 27. 4 of Division 6 of the Water Code.

65352. REFERRAL OF PROPOSED GENERAL PLAN UPDATES TO OTHER AGENCIES

Before a local body takes any action or proposes a general plan, the planning agency shall refer the proposed action to the following entities:

- 1) A local agency or other entity that is covered by the proposed action and may be significantly affected by the proposed action determined by the planning agency.
- 2) A local agency or other entity that is covered by the proposed action.
- 3) The local agency or other commission.
- 4) A local agency whose operations may be significantly affected by the proposed action determined by the planning agency.
- 5) A federal agency whose operations or interests may be significantly affected by the proposed action determined by the planning agency.
- 6) A) The branches of the United States Armed Forces have provided the Office of Planning and Research with a Confidential Address pursuant to subdivision (j) of Section 6594 of the proposed action with 1000 feet of any other points which specify a use or other use in the vicinity defined in Section 21098 of the Public Resources Code and the United States Department of Defense provides electronic maps of the vicinity in which the proposed action is located and in an electronic format acceptable to the Office of Planning and Research.
 B) Within 30 days of determination by the Office of Planning and Research of the information provided by the Department of Defense is submitted in an acceptable and format to the office shall disclose its and contents of the action of the information on the Internet disclose its and contents shall comply with paragraph A) within 30 days of receiving notice from the office.
- 7) A) A public water system as defined in Section 11627 5 of the Health and Safety Code within 1000 feet or service connection to a water consumer which is covered by the proposed public water system shall have at least 45 days to comment on the proposed plan, in accordance with subdivision (j) and (k) provide the planning agency with the information set forth in Section 65352.

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8) Any groundwater sustainability plan adopted by a groundwater sustainability agency shall be subject to the same management provisions of a groundwater sustainability plan as the plan for the proposed general plan.

9) The State Water Resources Control Board shall adopt a minimum groundwater protection standard commencing with Section 10735 of Part 4 of Division 6 of the Water Code that is consistent with the plan for the proposed general plan.

10) The Bay Area Aquifer Management District for proposed action within the boundaries of the district.

11) A California National Merit award shall be considered by the National Merit High School Commission and shall be considered while the project is under review.

12) The Central Valley Flood Protection Board for proposed action within the boundaries of the Sacramento-San Joaquin Delta Settlement Section 8501 of the Water Code.

b) A notice of proposed general plan amendment or general plan update shall be published 45 days from the date the agency makes its comments unless otherwise specified by the agency.

c) (1) This section does not affect the validity of the general plan.

(2) To the extent the equipment of this section conflicts with the equipment of Chapter 4 commencing with Section 65919, the equipment of Chapter 4 shall prevail.

65352.5. REQUIREMENT TO PROVIDE WATER-RELATED DOCUMENTS TO GENERAL PLAN AGENCY

a) The Legislature finds and declares that there be close coordination and consultation between California water planning agencies and California local agencies to ensure that water planning and management projects occur so as to accommodate project water resource needs and demands on water planning and resource management.

b) It is the intent of the Legislature to provide a standardized process for determining the adequacy of existing and planned future water projects to meet existing and planned future demands on these water projects and the impact of such decisions on the management of California water projects resources.

c) Upon receiving a request under Section 65352, notification of a project proposed action and a project shall be provided to the water system as defined in Section 11627.5 of the Health and Safety Code within 90 calendar days of the date the project is received by the agency with the following information as appropriate and relevant:

(1) The current status of water management plan adopted pursuant to Part 4 commencing with Section 10610 of Division 6 of the Water Code.

(2) The current status of any improvement program or other project pursuant to Section 31147.3 of the Water Code.

- 3) A description of the source resources of the watershed project and the water supply by water for consumption account and a concern regarding normal and dry non-flood years.
- 4) A description of the quantity of surface water that was provided by the watershed in the previous five years.
- 5) A description of the quantity of groundwater that was provided by the watershed in the previous five years.
- 6) A description of proposed additional sources of water for the watershed including the estimated dates by which these additional sources should be added and the quantity of additional water that is being proposed.
- 7) A description of the number of customers currently served by the watershed and by the following categories and by the amount of water served to each category:
 - A) Agricultural uses.
 - B) Commercial uses.
 - C) Industrial uses.
 - D) Residential uses.
- 8) Quantity of the expected future demand estimated by each customer category within paragraph 7 associated with future implementation of watershed water management measures estimated in the watershed plan water management.
- 9) A narrative description of the advanced planning and adequacy of existing planned future watershed projects to meet existing and planned future demands on the watershed.

d) Upon receiving a suit and Section 65352 notice of action or a court proposed action of a court suit and general agency of groundwater sustainability defined in Section 107.21 of the Water Code or an emergency suit and a court order under Section 107.35 shall provide the planning agency with the following information as appropriate and relevant:

- 1) The current version of the groundwater sustainability plan or the approved plan pursuant to Part 4.4 commencing with Section 107.20) of Division 6 of the Water Code.
- 2) The groundwater sustainability manager's groundwater sustainability account for the jurisdictional area or agreement among affected water rights holders of the State Water Resources Control Board has approved and submitted pursuant to Chapter 11 commencing with Section 107.35) of Part 4.4 of Division 6 of the Water Code of the groundwater sustainability plan shall provide the planning agency with maps of recharge basins and perched ponds, existing and the relevant information on the court jurisdictional area. See the Groundwater Management Act and related provisions (Chapter 6A of the Effective January 12, 2016 [revised 2016]).
- 3) A report on the anticipated effect of proposed action of a court suit and general agency on the implementation of groundwater sustainability pursuant to Part 4.4 commencing with Section 107.20) of Division 6 of the Water Code.

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Michael Diacos
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely,



Michael Diacos

FEB 27 '20 AM 9:00

Ann C. Cooluris
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

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Sincerely,



Ann C. Cooluris

2020 FEB 24 10 59 AM

George A. Graham
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

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George A. Graham

FEB 27 '20 AM 9:00

Geraldine Gramckow
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

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Geraldine Gramckow

0000 19 02 2020

Jurgen Gramckow
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

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Jurgen Gramckow

11/02/20 09:00

Timothy Shaw McGrath
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

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Timothy Shaw McGrath

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 7:58 AM
To: Simmons, Carrie
Subject: FW: General Plan/EIR Comments
Attachments: page3image3743440.png; page4image1774048.jpeg; page2image1668752.png; page3image3766736.png; page3image3744272.png; page1image1665632.png; page3image3766944.png

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit VC Citizen Access



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Dave Chambers <davechambers911@gmail.com>
Sent: Thursday, February 27, 2020 7:42 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan/EIR Comments

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on the 2040 General Plan EIR.

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local agriculture.

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contrary to statements made by County Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed in an EIR be feasible. CEQA Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time, ” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts

and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

February 19, 2020

Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with LU compatibility conflicts and increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agriculture on the parcel; and
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County’s Zoning Ordinance and the County’s minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Commission (LAFCo) hearing, Supervisor Linda Parks attempted to establish an “Agricultural Mitigation Measure” through the LAFCo project approval process. The mitigation measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland that would be

impacted by any proposed development. Ventura County Counsel, Michael Walker, informed both LAFCo and Supervisor Parks that the proposed mitigation measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFCo could not adopt Supervisor Park's proposed mitigation measure. He referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, "the sheer astronomical expense of land supports the finding of the EIR that the purchase of an agricultural conservation easement is a non-starter."

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land, as it does not address the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses "indirect impacts" that will occur as a result of implementing the 2040 General Plan as "less than significant."

Page 4.2-13 of the EIR states "AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims...This protects the farming community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to continue agricultural production."

Page 4.2-17 of the EIR states: "Residential growth in areas nearby agricultural lands has the potential to result in land use conflicts. Residential land uses are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses. The placement of sensitive land uses, such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odor nuisances and noise from agriculture machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts attributed to residential development...**Therefore, the potential for conflicts would be minimal. This impact would be less than significant**" (*emphasis added*).

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new restrictions and ordinances that have a significant impact on existing agricultural

[Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / \[info@colabvc.org\]\(mailto:info@colabvc.org\)](http://www.colabvc.org)

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim

urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as "programmatic" or "project", must analyze all reasonably foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of all policies and programs within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be analyzed. For example, the 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is reasonably foreseeable that more houses will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts must be addressed in the EIR.

In 2014, the California Court of Appeal stated in a ruling that "[T]he fact that this EIR is labeled a 'project' rather than a 'program' EIR matters little....Designating an EIR as a program EIR ... does not by itself decrease the level of analysis

otherwise required in the EIR. All EIRs must cover the same general content. The level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label accorded to the EIR.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to minimize conversion of agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the County admits that reducing the cost of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of normal farming operations, such as:

- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when feasible.
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utilities to eliminate or reduce standby charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development allowed in the 2040 General Plan on either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that “...a reduction in available water resources for irrigation” is an example of indirect impacts on agricultural land due to loss of topsoil from increased wind and water erosion. But the County fails to analyze or propose mitigation measures to address this significant impact.

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Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County should be seeking guidance from APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory demands on agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent the conversion of agricultural land to non-agricultural uses. These may include:

1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify the creation or expansion of setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in farming (including grazing); and

3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing setbacks on NON-AE-zoned land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000' of any land zoned A/E.

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and leadership at this time.

Sincerely,

Louise Lampara Executive Director

In support of this letter-

In support of this letter-
Dave Holroyd Chambers

FEB 27 '20 AM 9:59

Kevin McAtee
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

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The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

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In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

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Kevin McAtee

FEB 27 '20 AM 8:59

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c/o Hoffman, Vance & Worthington
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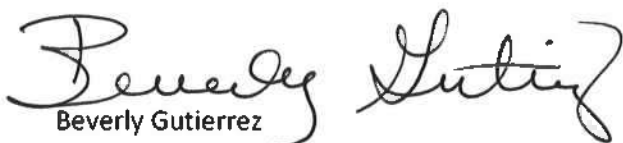
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Beverly Gutierrez

Dominick McCormick
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

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A handwritten signature in black ink, appearing to read 'Dominick McCormick', with a long horizontal line extending to the right.

Dominick McCormick

Downing, Clay

From: Downing, Clay
Sent: Thursday, February 27, 2020 5:11 PM
To: Simmons, Carrie; General Plan Update
Cc: Curtis, Susan
Subject: Fw: NBVC Comments on DEIR Ventura County 2040 General Plan
Attachments: NBVC Comments on VC2040 PPRD 07.30.2019 HighRes.pdf; smime.p7s; ATT00001.txt; ATT00002.htm

Follow Up Flag: Follow up
Flag Status: Flagged

From: Lousen, Kendall P CIV USN NAVB VCTY PT MUGU CA (USA) <kendall.p.lousen@navy.mil>
Sent: Thursday, February 27, 2020 4:55 PM
To: Downing, Clay <clay.downing@ventura.org>
Cc: Knoll, Michele A CIV (USA) <michele.knoll@navy.mil>
Subject: NBVC Comments on DEIR Ventura County 2040 General Plan

Dear Clay,

Thank you for the opportunity to review and comment on the Public Draft Environmental Impact Report (PDEIR) for the Ventura County 2040 General Plan. Please see attached letter and enclosure from Naval Base Ventura County (NBVC) submitted on 7/30/2019 to the County of Ventura.

The Ventura County 2040 General Plan PDEIR presents an important opportunity to evaluate Naval Base Ventura County (NBVC) military influence areas and incorporating the Joint Land Use (JLUS) Study Recommendations (Sep 2015) and Recommendations from the NBVC-Point Mugu Air Installations Compatible Use Zone (AICUZ) Study (Dec. 2016). Thank you for incorporating the military-compatibility areas (MCAs) and military operational airspace and restricted use airspace areas for policies and land use evaluations for the short- and long-range planning goals of Ventura County. While Naval Base Ventura County does not wish to enter any new comments into the record, we kindly request the County to carefully consider CMAs and reinforce the comments previously submitted by NBVC in July 2019. We also encourage strategic references to the JLUS (Sep. 2015) and 2016 NBVC-Point Mugu AICUZ Study throughout the General Plan Update, which provides more current data on adverse effects from aircraft noise than the ALUCUP, which is currently referenced in the Plan.

Again, thank you for the opportunity to review and comment on the Public Draft EIR for Ventura County 2040 General Plan.

--

V/r,

Kendall P. Lousen ("Kenny")
Acting Community Liaison Planning Officer

NAVAL BASE VENTURA COUNTY
Public Works Department (AM Branch)

311 Main Road, Bldg. #66
Point Mugu, CA 93042-5033
Phone: 805-989-9746
Email: Kendall.p.lousen@navy.mil



DEPARTMENT OF THE NAVY
NAVAL BASE VENTURA COUNTY
311 MAIN ROAD, SUITE 1
POINT MUGU, CA 93042-5033

IN REPLY REFER TO:
11010
Ser N46VCS/0572
30 Jul 19

Mr. Steve Bennett
Chair, Board of Supervisors
County of Ventura
800 S. Victoria Ave.
Ventura, CA 93009

Dear Chairman Bennett,

Subj: NAVAL BASE VENTURA COUNTY COMMENTS ON THE COUNTY OF
VENTURA 2040 GENERAL PLAN PRELIMINARY PUBLIC REVIEW DRAFT

The County of Ventura 2040 General Plan presents an important opportunity to implement the strategies of the Naval Base Ventura County (NBVC) Joint Land Use Study (JLUS) and recommendations of the Air Installations Compatible Use Zone (AICUZ) Study, to incorporate key military-community compatibility components, such as noise contours, accident potential zones, military training routes, and special use airspace.

Since the 1940s, the U.S. Navy has had an important presence in Ventura County. Today, Naval Base Ventura County has an annual economic impact within Ventura County of more than \$2 billion and supports more than 20,000 direct, indirect, and induced jobs. Ventura County residents hold over 18,000 of those jobs.

We are pleased to see that the General Plan Preliminary Public Review Draft incorporates many JLUS and AICUZ strategies, particularly in Chapter 2-Land Use, Chapter 4-Circulation, Transportation, and Mobility, and Chapter 7-Hazards and Safety. For example, Goal LU-21 seeks to ensure that County plans and policies are consistent with state laws concerning military compatibility and the recommendations contained in the Naval Base Ventura County Joint Land Use Study as they relate to land use and communications. Corresponding policies include participation in a JLUS Coordination Committee, using the JLUS to guide land use and resource management decisions and plan updates, establishing Military Compatibility Areas, enhancing communications, and coordinating with NBVC on infrastructure expansions, stormwater infrastructure improvements, and capital improvements.

In particular, Policy LU-21.1 states that the County shall participate in the NBVC JLUS Coordination Committee responsible for coordination among JLUS partners and implementation of JLUS recommendations to enhance long-term coordination on military compatibility issues. Given the County's leadership and facilitation roles across jurisdictions and stakeholders, we suggest that the County consider taking a leadership role to convene and facilitate the Coordination Committee.

Naval Base Ventura County appreciates the many goals, policies, and programs related to military-community compatibility included throughout the General Plan Preliminary Public

Subj: NAVAL BASE VENTURA COUNTY COMMENTS ON THE COUNTY OF
VENTURA 2040 GENERAL PLAN PRELIMINARY PUBLIC REVIEW DRAFT

Review Draft. As the County finalizes the Draft General Plan for environmental review and adoption, please consider the comments and suggested edits provided in Enclosure 1.

Thank you for your efforts to incorporate and foster military-community compatibility within the Draft General Plan, and thank you for the continued strong partnership between the County of Ventura and Naval Base Ventura County.

For additional information and coordination, please contact Ms. Amanda Fagan, Community Planning Liaison Officer at COMM: (805) 989-9752 or by email: amanda.fagan@navy.mil.

Sincerely,



J.E. CHISM
Captain, U.S. Navy
Commanding Officer

Encl (1): Comments Regarding Selected Military Compatibility Policies and References to Naval Base Ventura County, Ventura County 2040 General Plan Preliminary Public Review Draft – May 2019

**County of Ventura 2040 General Plan
Preliminary Public Review Draft - May 2019**

**Selected Military Compatibility Policies and References to Naval Base Ventura County
Assembled by Amanda Fagan, NBVC CPLO**

Page 1-4

Guiding Principles:

Economic Vitality

Foster economic and job growth that is responsive to the evolving needs and opportunities of the County's economy and preserves land use compatibility with Naval Base Ventura County and the Port of Hueneme, while enhancing our quality of life and promoting environmental sustainability.

Commented [FALCNSM1]: Concur

Page 1-11

Inter-governmental Coordination (IGC)

The County must coordinate with numerous local, regional, state, and federal agencies to implement the General Plan. These agencies provide services, facilities, or funding and administer regulations that directly or indirectly affect many issues addressed in the General Plan. The following is a partial list of public agencies that may play a role in implementing the General Plan:

- Local agencies such as cities, special districts, and school districts;
- Regional agencies such as Ventura Local Agency Formation Commission, Ventura County Air Pollution Control District, Ventura Council of Governments, and Ventura County Transportation Commission;
- State agencies such as Caltrans, General Services, California State University, California Environmental Protection Agency, California Coastal Commission, and Native American Heritage Commission; and
- Federal agencies such as U.S. Coast Guard, Naval Base Ventura County (NBVC), U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and Federal Emergency Management Agency.

Commented [FALCNSM2]: Concur

Page 2-56

2.8 Military Compatibility

Ventura County is home to several significant military installations and operations areas. These facilities are not only critical to the nation's defense, but also provide significant economic benefits and land use challenges. Naval Base Ventura County (NBVC) consists of three operating facilities – Point Mugu, Port Hueneme, and San Nicolas Island – that encompass a diverse set of specialties, including three warfare centers (Naval Air Warfare Center – Weapons Division, Naval Surface Water Center – Port Hueneme Division, and Naval Facilities Engineering and Expeditionary Warfare Center). NBVC is also home to deployable units, including the Pacific Seabees and the West Coast E-2-G Hawkeyes. Adjacent to Naval Base Ventura County, Point Mugu is the 204-acre Channel Islands Air National Guard Base Station is located adjacent to Naval Base Ventura County Point Mugu. Additionally, the Instrument Route-200 (IR-200) missile corridor military training route passes through Ventura County connecting the Point Mugu Sea Range and the Naval Air Weapons Station (NAWS) China Lake. Compatibility between military installations, adjacent land uses, and local communities is essential to protect military missions, the health of local economies and industries, and the quality of life for county residents. In order to achieve compatibility, the military and local

Commented [FALCNSM3]: Concur, with minor edits suggested

Commented [FALCNSM4]: The Hawkeye community is currently in the process of converting its fleet of E-2C to the E-2D. The document will be more timeless without a model designator (C or D).

improvement projects on Victoria Avenue. (MPSP, IGC) (Source: New Policy, NBVC JLUS Strategy LU-5B)

Page 2-61

Program H: Develop Memorandum of Understanding, JLUS Coordination Committee Guidance Document

The County should collaborate through the Naval Base Ventura County (NBVC) and Joint Land Use Study (JLUS) Coordination Committee to facilitate the development of a formal Memorandum of Understanding (MOU) guidance document that delineates the roles and responsibilities for each partner agency in the JLUS Study Area, including the County, NBVC, and incorporated cities. This document should ~~Each agency representative should acknowledge this document, which should~~ contain information such as:

- Point of contact and contact information for each agency,
- Role in addressing compatibility issues with the base,
- Responsibility in addressing compatibility issues,
- Community and military response times, and
- Triggers for coordination and communication, e.g., infrastructure planning, water resources planning, economic development.

[Source: New Program, NBVC JLUS Strategy COM-1B]

Commented [FALCNSM13]: An MOU may not be the right vehicle to meet the intent of this Program and associated Policy. There will likely be changes necessary to the document, such as POCs changing or newly devised triggers for coordination. As such, a more flexible instrument may work better, such as a "guidance" document developed by the Coordination Committee and acknowledged by each agency representative.

Page 2-63

Program I: Develop a JLUS Resource Management Reference Guide

The County shall cooperate with Naval Base Ventura County (NBVC) Joint Land Use Study (JLUS) partners in the development of a reference guide providing information about the various agencies in the JLUS Study Area with their respective responsibilities. It shall be tailored to existing JLUS issues and contain:

- Map(s) identifying the important resources in the area, and
- County and JLUS partner contact information for the agency representative that will help in cases of community-military compatibility.

[Source: New Program, NBVC JLUS Strategy COM-1D]

Commented [FALCNSM14]: Concur

Page 2-63

Program J: Update Plans and Amend Regulations with AICUZ Recommended Land Uses

The County should amend the Zoning Ordinance and/or Initial Study Assessment Guidelines, if necessary to incorporate the Air Installations Compatible Use Zones (AICUZ) recommended land use limitations and standards in the safety and noise zones. (MPSP)

[Source: New Policy, NBVC JLUS Strategy LU-8A]

Commented [FALCNSM15]: Concur

Program K: Amend Zoning Ordinance

The County should amend the Zoning Ordinances, if necessary, to comply with the Federal Aviation Administration (FAA) vertical obstruction guidelines, more specifically with the Navy's Airfield Imaginary Surfaces of the airfields located in the area. These surfaces are more restrictive and provide for greater safety of the public, pilots, and aircraft. The Navy's Airfield Imaginary Surfaces include slopes and heights that are allowable from various distances from the airfield.

[Source: New Program, NBVC JLUS Strategy LU-3B, LSA-5A, LG-1D, and VO-2A]

Commented [FALCNSM16]: Concur

Program L: Military Compatibility Areas (MCA)

The County shall update the Non-Coastal Zoning Ordinance and the Coastal Zoning Ordinance, if necessary, to delineate and establish the Military Compatibility Areas and Subzones illustrated

Commented [FALCNSM17]: Concur, with suggested edits

Page 4-23

Goal CTM-5: To ensure that air transportation systems provide safe, efficient, and reliable movements of people and goods. [Source: New Goal]

Commented [FALCNSM24]: Concur

Page 4-23

CTM-5.3 Private Airstrips and Agricultural Landing Fields

The County shall require private airstrips and agricultural landing fields to be sited to minimize conflicts with the flight paths of existing airports and other areas that would present significant hazards or nuisances.

Commented [FALCNSM25]: Concur. While military compatibility is not directly cited in this policy, it has benefit to military compatibility and NBVC.

Page 4-23

CTM-5.5 Airport Land Use Compatibility

Discretionary development that would endanger the efficient, safe operation of an airport or would result in significant land use incompatibility impact with an airport shall be prohibited. (RDR, SO)

[Source: Existing GPP Policy 4.2.2.10, modified]

Commented [FALCNSM26]: Concur. While military compatibility is not directly cited in this policy, it has benefit to military compatibility and NBVC.

Page 5-3

PFS-1.5 Infrastructure Expansion Coordination with Naval Base Ventura County

The County shall coordinate with Naval Base Ventura County (NBVC) when planning for infrastructure expansions, improvements, and maintenance that may impact any NBVC facility or operation. (IGC)

[Source: New Policy, NBVC JLUS Strategy IE-1A, IE-2A]

Commented [FALCNSM27]: Concur

Page 6-2 – 6-6

Section 6.1 Biological Resources

Section 6.2 Coastal Resources

Page 7-12

HAZ-2.4 Low Impact Development Upstream of Military Installations

The County shall encourage discretionary development upstream of military installations to incorporate low impact designs that reduce the risk of flooding downstream.

(RDR) [Source: New Policy, NBVC JLUS Strategy BIO-1A, modified]

Commented [FALCNSM28]: The goals and policies included in Sections 6.1 Biological Resources and 6.2 Coastal Resources do not directly address military compatibility. However, these goals and policies have a benefit to military compatibility by protecting special status species and habitat outside of Naval Base Ventura County, which reduces pressure on land, habitat, and species within the Naval Base and reduces impacts to military mission.

Page 7-18

Section 7.6 Transportation Related Hazards

Hazards associated with movement of goods and people or conveyance of hazardous materials have been grouped together and are addressed below. These include incidents related to aviation, vehicles, and railroad operations.

Although airplane crashes can occur anywhere, crashes that affect life and property on the ground occur most frequently in airport approach and departure zones. Residences, schools, and other buildings occupied by people that are located in such zones are subject to an ever-present risk from airplane accidents. Hazard zones have been identified for the four airports within the county: 1) Ventura County Airport at Oxnard; 2) Ventura County Airport at Camarillo; 3) Santa Paula Airport; and 4) Naval Base Ventura County, Point Mugu.

Commented [FALCNSM29]: Concur

Page 7-19

HAZ-6: To minimize the loss of life, injury, damage to structures, and economic and social dislocations resulting from hazards created by proximity to airports, railroads and truck routes.

Commented [FALCNSM30]: Concur

HAZ-8.3 Military Compatibility and Renewable Energy Development

The County shall require that new larger-scale commercial renewable energy development is consistent with Joint Land Use Study (JLUS) policies and regulations and that Naval Base Ventura County (NBVC) and the Department of Defense (DOD) Siting Clearinghouse are included in the development review process. (MPSP)

[Source: New Policy, NBVC JLUS Strategy ED-1A, ED-1C, modified]

Commented [FALCNSM39]: Concur

HAZ-8.4 Frequency Spectrum Encroachment Review

For discretionary development within 10 miles of Naval Base Ventura County (NBVC), Point Mugu that includes transmission facilities operating near military spectrum, the County shall submit project applications to NBVC for review and comment to determine appropriate coordination and review. (SO, IGC)

[Source: New Policy, NBVC JLUS Strategy FRQ-2C, FRQ-2B, modified]

Commented [FALCNSM40]: Concur

HAZ-8.5 Light and Glare Control

The County shall coordinate and consult with Naval Base Ventura County (NBVC) when reviewing applications for commercial alternative energy facilities (e.g., wind, solar, tidal) to ensure the systems do not impact flight or test operations. (RDR)

[Source: New Policy]

Commented [FALCNSM41]: Concur

Page 7-23

Section 7.9 Noise

HAZ-9: To protect the health, safety, and general welfare of county residents by striving to eliminate or avoid the adverse noise impacts on existing and future noise sensitive uses. [Source: Existing GPP Goal 2.16.1.1]

Commented [FALCNSM42]: Concur

HAZ-9.2 Noise Compatibility Standards

The County shall review discretionary development for noise compatibility with surrounding uses. The County shall determine noise based on the following standards:

Commented [FALCNSM43]: Concur, with minor edit suggested (delete extra comma in 3a)

1. New noise sensitive uses proposed to be located near highways, truck routes, heavy industrial activities and other relatively continuous noise sources shall incorporate noise control measures so that indoor noise levels in habitable rooms do not exceed Community Noise Equivalent Level (CNEL) 45 and outdoor noise levels do not exceed CNEL 60 or Leq1H of 65 dB(A) during any hour.
2. New noise sensitive uses proposed to be located near railroads shall incorporate noise control measures so that indoor noise levels in habitable rooms do not exceed Community Noise Equivalent Level (CNEL) 45 and outdoor noise levels do not exceed L10 of 60 dB(A)
3. New noise sensitive uses proposed to be located near airports:
 - a. Shall be prohibited if they are in a Community Noise Equivalent Level (CNEL) 65 or greater; noise contour; or
 - b. Shall be permitted in the Community Noise Equivalent Level (CNEL) 60 to CNEL 65 noise contour area only if means will be taken to ensure interior noise levels of CNEL 45 or less.

Page 7-24

HAZ-9.6 Airport Noise Compatibility

The County shall use the aircraft noise analysis prepared for local airports or the noise contours

Commented [FALCNSM44]: Concur, with minor edit suggested

Enclosure (1)

keep the base in the Navy's long-term plans, recognizing, however, that defense priorities can change. NBVC projects significant growth in coming years as an emerging hub for unmanned systems. Overall, NBVC generates about \$2 billion in total economic benefit to Ventura County each year.

EV-3: To facilitate the retention, expansion, and attraction of key industries and business clusters in the county.

[Source: New Goal]

Page 10-6

EV-3.1 Existing Business Retention

The County shall proactively focus on retention of existing businesses in key industry clusters. In the unincorporated areas, this would include prioritizing Naval Base Ventura County and agricultural activities. (MPSP, JP)

[Source: EVSP Policy C.2]

Commented [FALCNSM50]: Concur

Page 10-6

EV-3.4 Expansion of Naval Base Ventura County and Port of Hueneme Support Businesses

The County shall encourage expansion and attraction of businesses that can further support existing activities at Naval Base Ventura County and the Port of Hueneme including the strengthening of existing business relationships and establishing spin-off businesses that can transfer technologies used for military applications into other markets. (IGC, JP)

[Source: EVSP Policies A.7 and A.8, modified]

Commented [FALCNSM51]: Concur

Page 10-10

Program C: Business Retention and Expansion

The County shall coordinate with the Economic Development Collaborative - Ventura County to focus on retention and expansion of existing businesses in key industry clusters, including Naval Base Ventura County and Port of Hueneme support businesses.

[Source: New Program]

Commented [FALCNSM52]: Concur

Downing, Clay

From: Leslie Purcell <lesliepurcell@gmail.com>
Sent: Thursday, February 27, 2020 5:02 PM
To: General Plan Update
Subject: Comments on VC 2040 GPU DEIR
Attachments: VC GPU DEIR Comments.docx

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Please see attached comments.

Leslie Purcell

Attn: Susan Curtis

Re: Comments on VC 2040, GPU DEIR

2-27-2020

- Program H: County Tree Planting Program. The County shall plant at least one thousand trees annually on County property.

Comment: Priority should be given to planting appropriate native tree species, for their habitat value. County Administration and Court site at Victoria provides opportunity to create public awareness and education through the planting of native trees (and other native plants) with explanatory signage.

- Policy-- Countywide Tree Planting: The County shall establish and support a countywide target for the County, cities in Ventura County, agencies, organizations and citizens to plant two million trees throughout the county by 2040.

Comment: County should encourage the planting of appropriate native trees.

- Air Quality Impacts:

Comment: Need for best management practices for dust control and/or mitigation along the dirt shoulders of some agricultural fields; particularly when such dust contains remnants of chemicals from fertilizers, herbicides, pesticides.

- Water Quality impacts:

Comment: Need for best management practices and/or mitigation to control rain and or run-off, to prevent dirt from agricultural fields and/or shoulders of roadways, from washing into culverts/barrancas/streams/rivers/coastal waters/ocean, particularly when such dust contains remnants of chemicals from fertilizers, herbicides, pesticides.

Leslie Purcell

lesliepurcell@gmail.com

Downing, Clay

From: Ali Ghasemi <aghasemi@vcapcd.org>
Sent: Thursday, February 27, 2020 4:50 PM
To: General Plan Update
Cc: Nicole Collazo; aghasemi; Laki Tisopulos
Subject: VCAPCD Comment Letter
Attachments: VCAPCD Comments on DEIR for VCGPU 2040.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

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I would like to thank you for the opportunity to provide the attached VCAPCD comments on the GPU's DEIR. Please let me know if you have any questions/comments. Thanks

Ali Reza Ghasemi, PE
Division Manager
Ventura County APCD
Planning/Rules/Incentives Division
Phone: (805) 645-1427
Fax: (805) 645-1444
aghasemi@vcapcd.org

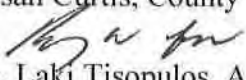




**VENTURA COUNTY
AIR POLLUTION CONTROL DISTRICT**
Memorandum

TO: Susan Curtis, County Planning

DATE: February 27, 2020

FROM: 
Dr. Laki Tisopulos, APCO

SUBJECT: Public Comment for Draft Environmental Impact Report (DEIR) for the County of Ventura General Plan Update 2040 (GPU)

Thank you for the opportunity to provide comments on the GPU's DEIR. The GPU is proposed to set forth the County's vision of its future and express the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including land use, health and safety, and resource conservation out to the year 2040. The project is not expected to identify any increase in overall development relative to the existing General Plan. However, the project will address topics and issues pursuant to state requirements adopted since the existing General Plan was approved in 2005. The Project Location includes all unincorporated areas within Ventura County. The Lead Agency for the project is the County of Ventura.

District staff provides the following comments and suggestions to further clarify and improve the document relative to the air quality and greenhouse gas emissions reduction benefits:

Section 4.3- Air Quality

Item 1- Page 4.3-16. The significance after mitigation discussion states that "implementation of Mitigation Measures AQ-1a, AQ-2a, and AQ-2b would reduce impacts to air quality to the extent feasible because construction-related emissions of criteria air pollutants and precursors would be minimized through the use of the highest rate diesel engines available for heavy duty". This mitigation reduction is also quantified and included as part of mitigation construction emissions in Table 4.3-3 and the CalEEMod report found in Appendix C- AQ Modeling displays Tier 4 equipment as the mitigation selected. However, the mitigation measures listed do not explicitly require cleaner diesel EPA off-road construction equipment (Tier 3 and Tier 4). We recommend including specific language such as "minimum use of Tier 3 or Tier 4 off-road construction diesel equipment. The use of cleaner diesel engines will dramatically reduce NOx and Diesel Particulate Matter, a toxic air contaminant, emissions during construction and may reduce short-term health impacts to sensitive receptors, particularly for prolonged extended construction periods of individual development projects.

Item 2- Page 4.3-19. The heading of Impact 4.3-4 should read "...would not result in..." or "...that does not exceed..." since the CO discussion concluded a less than significant localized

impact in relation to CO emissions. Furthermore, the District's Air Quality Assessment Guidelines have not been updated to reflect more recent information regarding CO attainment status and monitoring in Ventura County. For informational purposes, the following language reflects what is currently being recommended for determining local air quality impacts in relation to CO:

"Some localized areas, such as traffic-congested intersections, can have elevated levels of CO concentrations (CO hotspots). CO hotspots are defined as locations where ambient CO concentrations exceed the State Ambient Air Quality Standards (20 ppm for 1-hr standard, 9 ppm for 8-hr standard). The Federal Ambient Air Quality Standard for CO is 35 ppm for 1-hr standard and 9 ppm for the 8-hr standard. In Ventura County, ambient air monitoring for CO stopped in 2004, with the approval of the U.S. Environmental Protection Agency- Region 9, because CO background concentrations in El Rio, Simi Valley, and Ojai were much lower than the State Ambient Air Quality Standard (highest recorded CO background concentration in Ventura County was in Simi Valley at 6.2 ppm for 1-hr, 1.6 ppm for 8-hr (AQAG, Table 6-2). Therefore, no CO hotspots are expected to occur in the Growth and Non-Growth Areas where and additional CO modeling analysis is not warranted. In addition, with over 80% of the CO in urban areas emitted by motor vehicles, and with stricter, cleaner emission standards to the mobile fleet since 2003, CO ambient concentrations should remain at or lower than the most recent CO monitoring data available for Ventura County."

Item 3- Page 4.3-21. Policy LU-17.2 referenced on the last paragraph could not be found in DEIR Section 4.11 "Land Use and Planning" list of Land Use Proposed Policies.

Item 4- Page 4.3-23. When reviewing discretionary projects from other jurisdictions, it has been the practice of the District to recommend certain mitigation measures if local toxic exposure is considered significant (HRA cancer risk exceeds OEHHA thresholds). Please consider incorporating the following measures that may help reduce toxic exposure from heavily travelled transportation corridors into Policy HAZ-10.X or as a separate item under Mitigation Measure AQ-3:

- install location of air intakes furthest away from toxic source (such as a heavily traveled transportation corridor)
- limit window opening height or permanently seal windows so that they don't open on side of sensitive-receptor buildings (hospitals, retirement homes, schools, libraries, residential)
- install a vegetative barrier, considering height and cover thickness, to create a natural buffer between sensitive receptors and toxic source (freeway or heavily traveled transportation corridor)

Section 4.8- Greenhouse Gas Emissions

Item 5- Page 4.8-1. In addition to the CARB GHG Regulations for Crude Oil and Natural Gas, please include the CARB GHG Methane Municipal Waste Landfill Regulation with background information. Much like the CARB GHG Crude Oil and Natural Gas Regulation, the District

came into a Memorandum of Understanding with CARB in 2015 to be able to implement and enforce the regulation for landfills inside the District's jurisdiction.

Item 6- Page 4.8-5. The chemical abbreviation used for carbon dioxide should be CO₂, not CO (carbon monoxide). This is found throughout the text in the first paragraph.

We look forward to working with the County of Ventura to make sure the 2040 General Plan Update is consistent with recently adopted air quality regulations and the state's plans to reduce greenhouse gas emissions.

If you have any questions regarding the contents of this memo, you may contact Mr. Ali Ghasemi, Planning, Rules, and Incentives Manager at aghasemi@vcapcd.org or Mrs. Nicole Collazo, Air Quality Specialist, at nicole@vcapcd.org.

Downing, Clay

From: Maxwell, James
Sent: Thursday, February 27, 2020 4:39 PM
To: General Plan Update; Curtis, Susan
Cc: Loeb, Kim
Subject: RE: VC2040 | Notice of Availability of a Draft EIR for Public Review
Attachments: VC 2040 GPU DEIR GW Response Memo 20200227.pdf; Chapter 10 Water Resources_GW review_20200227.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Susan,

Please see the attached response memo from Groundwater Resources for the Ventura County 2040 General Plan Update Environmental Impact Report. Groundwater Resources also reviewed and updated relevant information in Chapter 10 (Water Resources) of the Background Report (Appendix B) from the DEIR. A word document of Chapter 10 with markup and comments is also attached.

Let us know if you have questions or comments.

Thanks,

James Maxwell, PG, CEG
Groundwater Specialist
Watershed Protection District
Water Resources Division
P: 805-654-5164
E: james.maxwell@ventura.org

From: Ventura County General Plan Update <generalplanupdate@ventura.org>
Sent: Monday, January 13, 2020 7:29 AM
To: Maxwell, James <James.Maxwell@ventura.org>
Subject: VC2040 | Notice of Availability of a Draft EIR for Public Review

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Notice of Availability of a Draft EIR For Public Review

Notice is hereby given that a Draft Environmental Impact Report (EIR) has been prepared by the County of Ventura, State of California, and is available for public review pursuant to the California Environmental Quality Act (CEQA) Guidelines for the Ventura County 2040 General Plan (State Clearinghouse No. #2019011026).

PROJECT LOCATION: All unincorporated areas within Ventura County

PROJECT DESCRIPTION: The proposed project is a comprehensive update of the County of Ventura General Plan, also known as the 2040 General Plan. The 2040 General Plan will set forth the County's vision of its future and identify the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including but not limited to land use, climate change, agriculture, transportation, hazards, public facilities, health and safety, environmental justice, and resource conservation out to the year 2040. The County, as the lead agency, has prepared an EIR in accordance with CEQA. The purpose of the notice of availability is to call attention to this EIR and to request that interested persons review and provide comments on significant environmental issues, mitigation measures, and range of reasonable alternatives addressed in the EIR. The 2040 General Plan is anticipated to be adopted in 2020. With implementation of the 2040 General Plan, development may occur on or near site(s) identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5.

SIGNIFICANT ENVIRONMENTAL EFFECTS: The Draft EIR has identified significant and unavoidable environmental impacts in the following resource areas.

- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural, Tribal Cultural, and Paleontological Resources
- Greenhouse Gas Emissions
- Hazards, Hazardous Materials, and Wildfire
- Mineral and Petroleum Resources

- Noise and Vibration
- Public Services and Recreation
- Transportation and Traffic
- Utilities

WHERE THE DRAFT EIR IS AVAILABLE: The Draft EIR and supporting documents are available for public review at the following locations:

- 2040 General Plan Update webpage at <https://vc2040.org/>;
- The Planning Division website at <http://vcrma.org/divisions/planning> (select “CEQA Environmental Review”); and
- County of Ventura, Resource Management Agency, Planning Division Public Counter, 3^d Floor, Hall of Administration, 800 S. Victoria Avenue, Ventura, CA, 93009, between the hours of 7:30 a.m. and 4:30 p.m., Monday through Friday.

Digital versions of the Draft EIR and supporting documents are available at the following libraries:

- Albert H. Soliz Library (2820 Jordan Street, Oxnard, CA 93036);
- Avenue Library (606 North Ventura Ave., Ventura, CA 93001);
- E.P. Foster Library (651 East Main St., Ventura, CA 93001);
- Fillmore Library (502 2nd St., Fillmore, CA 93015);
- Hill Road Library (1070 S. Hill Rd., Ventura, CA 93003);
- Meiners Oaks Library (114 North Padre Juan, Ojai, CA 93023);
- Oak Park Library (899 North Kanan Rd., Oak Park, CA 91377);
- Oak View Library (555 Mahoney Ave., Oak View, CA 93022);
- Ojai Library (111 East Ojai Ave., Ojai, CA 93023);
- Piru Library (3811 Center St., Piru, CA 93040);
- Ray D. Pruetter Library (510 Park Ave., Port Hueneme, CA 93041); and
- Saticoy Library (1292 Los Angeles Ave., Ventura CA 93004).

PUBLIC REVIEW AND COMMENT PERIOD: The 45-day public review and comment period during which the County will receive comments on the Draft EIR begins Monday, January 13, 2020 and ends at 5:00 p.m. on Thursday, February 27, 2020.

SEND COMMENTS TO:

Ventura County Resource Management Agency, Planning Division
 Attn: Susan Curtis, Manager, General Plan Update Section
 800 S. Victoria Ave., L #1740
 Ventura, CA 93009-1740

Or via email to: GeneralPlanUpdate@ventura.org

Please include your name or the name of a contact person, your agency or organization (if applicable), and U.S. mail and email addresses.

By: Dave Ward, Director
Ventura County Planning Division



County of Ventura
Resource Management Agency, Planning Division
800 South Victoria Avenue, L #1740
Ventura, CA 93009

For more information, contact Susan Curtis by email or at (805) 654-2497.

Para más información póngase en contacto con Susan Curtis por correo electrónico o al (805) 654-2497.

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WATERSHED PROTECTION

MEMORANDUM

DATE: February 27, 2020

TO: Susan Curtis, Manager, General Plan Update Section

FROM: James Maxwell, Groundwater Specialist 

SUBJECT: Ventura County Public Works Agency, Water Resources Division (VCWRD) Response, Draft Environmental Impact Report (DEIR), Ventura County 2040 General Plan

VCWRD reviewed the DEIR and supporting documents (Appendix B, Ventura County 2040 General Plan Update Background Report, Revised Public Review Draft January 2020) submitted by the County of Ventura. VCWRD does not have any comments regarding the DEIR. Relevant updates and comments have been made to Chapter 10 (Water Resources) of the Background Report.



Ventura County
2040
GENERAL PLAN



Chapter 10

Water Resources

10 WATER RESOURCES

INTRODUCTION

This chapter summarizes the various water resources and water resource issues in Ventura County. It is organized into the following sections:

- ~~Resources Assessment~~Major Findings (Section 10.1)
- Legal and Regulatory Framework for Water Management (Section 10.2)
- Integrated Regional Water Management (10.3)
- Existing Conditions (by watershed) (Section 10.4)
- Trends and Future Conditions (Section 10.5)
- Key Terms (Section 10.6)
- References (Section 10.7)

The organization of this chapter differs from others in the Background Report because of the nature of its subject matter. First, because the overall legal and regulatory framework affecting water resources is key to understanding how such resources are managed, the framework is the first substantive discussion in this chapter. Second, because water resources are so integrally tied to geography, the existing conditions discussions are organized according to the County's watersheds, with each aspect of the resource addressed as it relates uniquely to each watershed.

SECTION 10.1 ~~RESOURCES ASSESSMENT~~MAJOR FINDINGS

~~Sustainable Adequate water supply is an current and ongoing concern in Ventura County due to climate change and drought conditions, associated the related declines in surface river flows and reservoir levels, historic overdraft of several local groundwater basins, curtailment of groundwater extractions supplies in southern Ventura County, prohibition of new groundwater wells prohibitions, and reduced deliveries of imported water. More than 850,000 residents and 156 square miles (95,802 acres) of irrigated farmland in Ventura County experienced direct impacts from the drought conditions that began in 2012.~~

- ~~The water supply challenges are great and could potentially impact domestic residents, commercial/industrial, municipal businesses, agricultural, and the environmental resources of Ventura County without goal-oriented planning and implementation concerted action.~~

- ~~Climate change poses major challenges for water supply. Climate change is causing warmer temperatures, altered patterns of precipitation, runoff, and rising sea levels. Climate change may compromise the ability to effectively manage water supplies, floods and other natural resources. It is anticipated that climate change will increase demand for water as temperatures rise, increase the need for water for firefighting purposes, change the timing and pattern of snowmelt and runoff, and sea level rise will threaten aging coastal water infrastructure. Planning for and adapting to these changes, particularly impacts to long term water supply reliability, will be a significant challenge. Additional~~

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Background Report
County of Ventura

~~details on climate change are found in Chapter 12 of the General Plan Background Report.~~

- ~~**Declines in surface water flow and reservoir levels in Western Ventura County.**~~
Water supplies ~~The water~~ for more than 70,000 people in western Ventura County are strained by ~~is at risk due to the~~ drought conditions that began in 2012. Imported water delivered by Calleguas Municipal Water District (CMWD) is not available ~~cannot currently be delivered~~ to western Ventura County and groundwater resources are ~~is very~~ limited. Water agencies that obtain ~~typically get~~ all or part of their supply ~~water~~ from wells ~~have had to start supplementing~~ purchasing water from Lake Casitas ~~water, as their wells have run dry.~~ During the drought conditions, purchases of Lake Casitas water increased ~~by 1,000%.~~ The lake is a diminished ~~important, but dwindling,~~ resource threatened by both water quality and ~~water supply issues~~ concerns. As of February 2020, Lake Casitas is over 40% capacity; however, ~~for the first time since 1968, reservoir volume~~ levels in ~~Lake Casitas are~~ expected to drop below 35% ~~due to decreased inflow volume.~~ Historic ~~low water volume~~ levels in 1968 resulted in significant thermal stratification and anoxic ~~(without dissolved oxygen) conditions.~~ ~~The~~ ~~low oxygen levels~~ created an environment where manganese and hydrogen sulfide, normally trapped in sediments, became soluble, causing unfavorable color and taste to the reservoir ~~lake water to have a brown color and bitter metallic taste.~~ ~~There were also~~ These conditions encourage growth of large blue-green algae blooms. ~~Normally~~ creek inflows typically provide supply and facilitate lake water mixing (which helps maintain good water quality). ~~Inflows have significantly decreased since 2012, causing the lake to stratify and stagnate.~~ Casitas Municipal Water District (Casitas) added ~~has had to add~~ aeration facilities ~~to combat the water quality effects from the drought.~~
- ~~**Drought has significantly affected local water supplies.**~~ More than 850,000 residents and 156 square miles (95,802 acres) of irrigated farmland in Ventura County experienced direct impacts from the drought that began in 2012.
- ~~**There are inadequate water supplies to meet future demands in some areas of the county.**~~ Developing new water supplies is costly and requires a significant amount of time for planning, identifying and securing funding, environmental review, permitting, and construction. Some of the new supplies being considered include advanced treatment of wastewater for use as potable water, stormwater capture and reuse, treatment of brackish groundwater, and ocean desalination. Facilities to import and deliver locally-held, State Water Project entitlements are being considered. In addition, significant water conservation efforts have begun, mainly in municipal and industrial uses. Agricultural practices are also increasing in efficiency. ~~These efforts will need to continue and be sustained.~~
- ~~**Overdrafted groundwater basins in the county are experiencing overdraft conditions.**~~
Groundwater is ~~the largest single source of water in the County, pumped by individual well owners and water purveyors, estimated to provide 67 percent of the local water supply.~~ The California Department of Water Resources (DWR) has identified the following groundwater basins ~~in Ventura County~~ as being in critical overdraft:
 - ~~Cuyama Valley Basin (DWR Basin No. 3-013)~~
 - ~~Oxnard Subbasin (DWR Basin No. 4-004.02)~~
 - ~~Pleasant Valley Basin (DWR Basin No. 4-006).~~

~~The Cuyama Valley Basin as a whole is considered to be in overdraft, however, the United States Geological Survey (USGS) estimates the portion in Ventura County not to be in overdraft, Oxnard Plain, and Pleasant Valley.~~

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Commented [MJ1]: Keep climate change discussion in the Climate Change chapter.
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Water Resources

2040 General These basins serve both urban populations and agriculture. In April 2014, to protect groundwater supplies, the Fox Canyon Groundwater Management Agency, passed Emergency Ordinance E which mandated reduced extractions in many of the groundwater basins in southern Ventura County. In December 2014 the Ventura County Board of Supervisors approved and adopted Ordinance 4468 which prohibits new water

10

¹ As defined in the Sustainable Groundwater Management Act, a basin is subject to critical overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts such as persistent lowering of groundwater levels, drying of wells, reductions in groundwater storage, sea water intrusion, degradation of water quality, land subsidence, and reduction of water in streams and lakes.

wells within a defined boundary in the unincorporated County in the majority of groundwater basins. These prohibitions will not be removed until Groundwater Sustainability Agencies (GSAs) are formed and have completed Groundwater Sustainability Plans (GSPs) per the Sustainable Groundwater Management Act (SGMA). Implementation of SGMA the Sustainable Groundwater Management Act will require an assessment of the condition of groundwater basin conditions and managing groundwater demand, and undertaking implementation of groundwater recharge projects to achieve long-term sustainability.

- **Variability in deliveries of imported water.** Approximately 75% three quarters of Ventura County residents receive imported water supply from CMWD Alleguas Municipal Water District. Imported water volume The amount of imported water varies depending on seasonal climate conditions, regulatory restrictions on SWP exports, conditions water costs and regional demands. The DWR California Department of Water Resources prepares a biennial report to evaluate the reliability of imported water from the State Water Project. The most recent update, the 2017 State Water Project Delivery Capability Report, anticipates greater extremes in the imported water system with lower than historic water availability in dry years and greater than historic water availability in wet years, with the long-term average deliveries decreasing reported an increased average annual delivery of water since the 2015 Report.
- **Water resources dedicated to environmental purposes may change.** State and federal agency regulations restrict requirements dictate the amount of exported SWP water that must remain be available for endangered species and this affects management of water resources. Water availability for municipal, agricultural and other uses will be potentially reduced by stricter management of inflow to upstream reservoirs to Potential requirements to provide increased instream flows could further reduce water available for municipal, agricultural, and other uses.
- **There are insufficient adequate water supplies to meet future County demands in some areas of the county.** Developing new water supplies is costly and requires a significant amount of time for planning, identifying and securing funding, environmental review, permitting, and construction. Some of the new supplies Alternative water sources being considered include advanced treatment of wastewater for use as potable water, stormwater capture and reuse, treatment of brackish groundwater, and ocean desalination. Facilities to import and deliver locally held SWP State Water Project entitlements are being considered. In addition, significant w Water conservation measures are efforts have begun, mainly in municipal and industrial uses. Agricultural practices are also increasing in efficiency. These efforts will need to continue and be sustained.
- **Shift toward Integrated Regional Watershed Management (IRWM).** In the past, various different elements of the water systems were managed independently separately from other elements, i.e., Groundwater was managed as a separate resource from stormwater and separate from recycled water. There has been a shift in water resources management and regulation toward watershed-based approaches. This A shift in water resources management and regulation toward a watershed-based approach integrates on a regional level the many facets of water resources management, including water supply, water quality, flood management, ecosystem health, and recreation through enhanced collaboration across geographic and political boundaries and diverse stakeholder groups.
- * **Water supplies dedicated to environmental purposes may change.** State and federal requirements dictate the amount of water that must be available for endangered species and this affects management of water resources. Potential requirements to provide increased instream flows could

Background Report

County of Ventura

~~further reduce water available for municipal, agricultural, and other uses.~~

- ~~There is great diversity in the size, source, and organization of w~~**Variety of water ater suppliers in Ventura County.** Many properties are served by private wells and surface water diversions. Other properties are served by mutual water companies, irrigation companies, special districts, cities, private utilities, and wholesale water agencies. There are more than 162 water suppliers in the county.

- ~~Land development Water supply and demand for land developments significantly affects demand and supply. The type of use and usage and development greatly drives the demand and dictates the type and volume of water needed. High-density residential development will require drinking-quality water water treated to drinking water standards. Water sent to users with Water collected by sewer systems is collected and can be treated and used as a secondary recycled water supply. Agricultural users users may be able to apply utilize raw or recycled water and application of water in agricultural fields that assists with may recharge to groundwater.~~
- ~~Impacts from Urban land development can impact water quality resources. Land development can impact water quality; however, but there are implementation of best management practices and conservation other practices can be employed methods to to avoid and lessen potential residuals such impacts. Land development commonly creates an increases in impervious surfaces, which increases the amount of runoff volume and stormwater pollutants in stormwater. As s Stormwater runoff is over impervious surfaces such as rooftops, roadways, and parking lots, the runoff accumulates sediment, pollution pollution and sediment, nutrients, bacteria, and other impacts pollutants. Pollutants in s Stormwater is are typically conveyed transported directly to drainage local channels, tributaries, rivers, and the ocean, prior to or without any treatment. Land development potentially impacts floodplains, increases the risk of flooding, and decreases the ability to manage storm waters naturally. Developments in floodplains may impact the ability to recharge groundwater recharge basins through infiltration and may reduce remove percolation surface area potential sites with recharge capabilities. In addition to altering stormwater runoff, it and development introduces other point sources of pollution including discharges from sewage-treatment plants, individual septic tanks, community wastewater treatment systems, and industrial facilities.~~
- ~~Impacts from Agriculture land development can impact water quality resources. Soil disturbance Tillage and subsequent irrigation of land changes the runoff and infiltration characteristics of the ground surface land, potentially affecting percolation to the subsurface and recharge to groundwater. This also and increases erosion and resulting sediment deposition into surface-water bodies, while altering evapotranspiration. This in turn affects the interaction of groundwater and surface water.~~
- ~~Poor water Water quality limitations to s beneficial uses of water. Decreased Poor water quality can limit the availability of suitability of a water body resource for beneficial uses such as agriculture, recreation, fisheries, and riverine habitat. Poor water quality also can limits the use of the water for as a water supply or drastically increase the treatment cost.~~
- ~~Development impacts to can affect natural hydrologic processes. D Some development can potentially significantly alter land topography and surface geography. Removal of natural vegetation and manmade structures such as levees, dams, and diversion structures disrupt natural hydrologic processes (i.e. sediment transport and deposition, groundwater recharge). These changes alter water velocity, river substrate, water shading, soil moisture, and other ecosystem characteristics needed by fish and wildlife.~~

Commented [MJ2]: This paragraph is extraneous if we are describing individual types of development below.

SECTION 10.2 LEGAL AND REGULATORY FRAMEWORK FOR WATER MANAGEMENT

The ~~framework for~~ water management ~~framework of~~ Ventura County ~~is complex and~~ reflects the ~~network of~~ laws, policies, and regulations governing California water. Many laws and many institutions influence water planning (Table 10-1); ~~Table 10 provides a broad regulatory overview.~~ Additional details ~~on several of these laws,~~ and a discussion of regulations with land use linkages, are further summarized on the following pages.

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**TABLE 10-1
FRAMEWORK FOR WATER MANAGEMENT**

| Statute, Code, or Authority | Relationship to Water Management |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| State of California Constitution, Article X, Section 2 | Requires that all entities in the State use water in a beneficial manner and prohibits unreasonable use and water waste. |
| State of California Riparian Water Rights | Allows owners of land on a stream to divert and use a portion of the flow. |
| State of California Appropriative Water Rights | The right to divert, store, and use water on any land, provided the use is reasonable and does not harm earlier appropriators. Appropriative rights are managed by the State Water Resources Control Board. |
| State of California Water Commission Act | Established a system of State-issued permits and licenses to appropriate water. |
| Federal Endangered Species Act | Designed to protect endangered and threatened species and promote species recovery. Requires that federal agencies consult with the US Fish and Wildlife Service and the National Marine Fisheries Service to ensure that federal actions do not jeopardize endangered or threatened species or their habitat. |
| National Environmental Policy Act | Requires federal agencies to conduct an environmental review for federal actions that may affect the environment; encourages implementation of mitigation measures to avoid impacts. |
| State of California Endangered Species Act | Designed to protect endangered and threatened species and promote species recovery. Requires that state and local agencies consult with the California Fish and Wildlife Service to ensure that their actions do not jeopardize endangered or threatened species or their habitat. |
| California Environmental Quality Act (CEQA) | Requires state and local governments to evaluate environmental effects and find ways to mitigate effects where feasible, prior to approving projects. |
| State of California Porter-Cologne Water Quality Control Act | This is a water quality control law and regulatory program to protect water quality and beneficial use of the State’s water. This act allows regulation of discharges to water. |
| Federal Clean Water Act | Requires permits for the discharge of pollutants to waters of the United States from any point source. See additional detail below. |
| Federal and State Safe Drinking Water Act | Under this law, federal and state agencies set and enforce standards for drinking water quality. |
| State of California Regional and Local Water Agency Formation enabling acts | Guides the formation of districts for controlling, conserving, managing, and distributing water. |
| State of California Urban Water Management Planning (UWMP) Act | Requires urban water suppliers to conduct regular comparisons of supplies and demands. (See additional detail below.) Within the UWMP, water suppliers must include, to the extent practicable, information on the water quality of existing sources and the manner in which water |

**TABLE 10-1
FRAMEWORK FOR WATER MANAGEMENT**

| Statute, Code, or Authority | Relationship to Water Management |
|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | quality affects supply reliability. Based on the UWMP, water suppliers explore enhancing basic supplies from traditional sources such as the State Water Project (SWP) as well as other options. These include groundwater extraction, water exchanges and transfers, water conservation, recycling, brackish water desalination and water banking/conjunctive use. Each option will involve evaluations of how it would: (1) fit into the overall supply/demand framework; (2) impact the environment; and (3) affect customers. The objective of these more detailed evaluations would be to find the optimum mix of conservation and supply programs that ensure customers' needs are met. |
| State of California Agricultural Water Management Act | Senate Bill X7-7, the Water Conservation Act of 2009 (SB X7-7), requires agricultural water suppliers who provide water to more than 25,000 irrigated acres (excluding acreage irrigated by recycled water) to adopt and submit Agricultural Water Management Plans (AWMP) to DWR and to implement Efficient Water Management Practices, including the measurement and volumetric pricing of water deliveries. Within Ventura County, Casitas Municipal Water District, Camrosa Water District, and Ventura County Waterworks District No. 1 prepared AWMPs in 2015. |
| State of California Water Conservation in Landscaping Act | Requires specific water efficiencies for landscapes in new or redevelopment projects. |
| State of California Energy Commission Title 20 | Sets standards for toilets, urinals, faucets, and showerheads. The appliance standards dictate what can be sold in California and impact new construction and replacement fixtures in existing homes. |
| State of California CAL Green Building Code | Requires residential and non-residential water efficiency and conservation measures for new structures that will reduce the overall potable water use by 20 percent. Water savings can be achieved by installing plumbing fixtures and fittings that meet the 20 percent reduced flow rate specified in the CAL Green Code, or by other measures that meet the reduction standard. |
| State of California Sustainable Groundwater Management Act | Requires entities using water from groundwater basins designated as high or medium priority by the Department of Water Resources to assess the condition of groundwater basins and to develop a framework for long-term sustainability through demand management and groundwater recharge activities. (See additional discussion on the Sustainable Groundwater Management Act further in this Section below.) |
| <u>State of California Class II Underground Injection Control Program</u> | <u>Regulation of wells used to inject fluids associated with oil and natural gas production. The purpose of the regulation is to ensure fluids associated with oil and gas production are not introduced into drinking water sources. (See additional details below.)</u> |

**TABLE 10-1
FRAMEWORK FOR WATER MANAGEMENT**

| Statute, Code, or Authority | Relationship to Water Management |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| State of California Permitting of Water Systems | Regulates the formation of new public water systems by the State Water Resources Control Board. (See additional detail below.) |
| County of Ventura General Plan Goals, Policies and Programs | Complies with Section 65300 of the California Government Code which requires that, "Each planning agency shall prepare and the legislative body of each county and city shall adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning." |
| County of Ventura Subdivision Ordinance | Regulates and control subdivisions of land and in conjunction implements the County's General Plan. (See additional detail below.) |
| County of Ventura Coastal Zone Ordinance | Regulates all proposed development in the Coastal Zone of Ventura County. (See additional detail below.) |
| County of Ventura Non-Coastal Zone Ordinance | Regulates all proposed development in the Non-Coastal Zone of Ventura County. (See additional detail below.) |
| Ventura County Groundwater Conservation Ordinance | Regulates construction, maintenance, operation, use, repair, modification, and destruction of groundwater wells. (See additional detail below.) |
| County of Ventura Landscape Design Criteria | Requires approval of a landscape plan for new and modified developments. Limits the plant types and plant pallets so as to conserve water, and requires minimum irrigation efficiency. |
| State of California Propositions 50, 84, and 1 | Grant funding to encourage regional integrated planning of water resources. (See additional detail below.) |
| State of California Non-potable Water Reuse Systems-Chapter 15 of the California Plumbing Code (CPC) (as of 2017) | Allows for use of non-potable water (i.e., graywater), which includes wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs. Requires a plumbing permit from the County of Ventura Resource Management Agency, Building and Safety Division. |

Urban Water Management Plan Act (State)

State law requires that urban water suppliers with more than 3,000 customers, or who deliver more than 3,000 acre-feet per year (AFY), adopt water management and conservation plans that evaluate water supplies and water demands for a 20-year period. Urban Water Management Plans (UWMP) are to be updated every five years or when there are significant changes in available supplies or demands. An UWMP is a planning tool that generally guides the actions of water management agencies. It provides managers and the public with a broad perspective on a number of water supply issues. It is not a substitute for project-specific planning documents, nor was it or intended to be when mandated by the State Legislature. For example, the Legislature mandated that the Plan include a Section that "describes the opportunities for exchanges or water transfers on a short-term or long-term basis." (California Urban

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Water Management Planning Act, Article 2, Section 10630(d)). The identification and inclusion of such opportunities, ~~and the inclusion of those opportunities~~ in a general water service reliability analysis, neither commits a water management agency to pursue a particular water exchange/transfer opportunity, nor precludes a water management agency from exploring exchange/transfer opportunities not identified in the Plan. When specific projects are chosen to be implemented, detailed project plans are developed, environmental analysis, if required, is prepared, and financial and operational plans are detailed.

“A plan is intended to function as a planning tool to guide broad-perspective decision making by the management of water suppliers.” (Sonoma County Water Coalition v. Sonoma County Water Agency (2010) 189 Cal. App. 4th 33, 39). It should not be viewed as an exact blueprint for supply and demand management. Water management in California is not a matter of certainty and planning projections may change in response to a number of factors. “[L]ong-term water planning involves expectations and not certainties. Our Supreme Court has recognized the uncertainties inherent in long-term land use and water planning and observed that the generalized information required . . . in the early stages of the planning process are replaced by firm assurances of water supplies at later stages.” (Id., at 41). From this perspective, it is appropriate to look at the UWMP as a general planning framework, not a specific action plan. It is an effort to generally answer a series of planning questions including:

- What are the potential sources of supply and what is the reasonable probable yield from them?
- What is the probable demand, given a reasonable set of assumptions about growth and implementation of good water management practices?
- How well do supply and demand figures match up, assuming that the various probable supplies will be pursued by the implementing agency?

Using these “framework” questions and resulting answers, the implementing agency will pursue feasible and cost-effective options and opportunities to meet demands.

Based on the UWMP, water suppliers explore enhancing ~~basic~~ supplies from traditional sources such as ~~the State Water Project (SWP) water as well as other options~~. These include groundwater extraction, water exchanges and transfers, water conservation, recycling, brackish water desalination and water banking/conjunctive use. ~~Specific planning efforts will be undertaken in regard to each option, involving detailed evaluations of how each~~ Options are evaluated regarding feasibility would fit into the overall supply/demand framework ~~including, how each option would impact the~~ environmental impacts and how each option would affect customers. The objective of these ~~more detailed~~ evaluations ~~is~~ would be to find the optimum mix of conservation and supply programs that ~~balance water demand, ensure that the needs of customers are met~~.

The Urban Water Management Plan Act requires ~~60-days notice to any applicable city of county coordination with local land use entities. A where the water agency supplies water that the plan is being updated, at least 60 days prior to the public hearing on the plan any applicable city or county where the water agency supplies water must be notified that the plan is being updated~~. The water supplier must ~~also~~ provide notice when the Draft UWMP is available for review and comment. Upon completion of the UWMP a copy of the plan must be provided to the applicable land use jurisdictions.

Sustainable Groundwater Management Act (State)

In September 2014, the California legislature enacted comprehensive legislation to manage California groundwater. Known as the Sustainable Groundwater Management Act (SGMA) ~~of 2014~~, the legislation provides a framework for sustainable management of groundwater supplies by local authorities, ~~but~~ with

the potential for state intervention, if necessary. ~~The first step in the process laid out by~~ The legislation requires the formation of local groundwater sustainability agencies (GSAs). ~~These GSAs are established to~~ must be formed to address the basing groundwater basins determined by the state prioritization ~~to be state of high or medium priority,~~ (unless adjudicated). In Ventura County, ~~one seven~~ basins ~~is~~ are designated as medium priority, Ojai Valley, Upper Ventura River, Cuyama Valley, Arroyo Santa Rosa Valley, Mound, Santa Paula (which is adjudicated), Fillmore and ~~eight four~~ are designated as high priority, Oxnard Plain, Pleasant Valley, Las Posas, and

~~Paula~~ Three basins are listed as “critical overdraft:” Oxnard Plain, Pleasant Valley, and Cuyama Valley. The Santa Paula Basin is adjudicated, and is currently only subject to annual reporting requirements to DWR under SGMA.

GSAs are empowered to utilize a number of new management tools to achieve the sustainability goal. ~~For example,~~ GSAs may require registration of groundwater wells, mandate annual extraction reports ~~from individual wells,~~ impose limits on extractions (allocations), and assess fees to support creation and adoption of a groundwater sustainability plan (GSP). GSAs also may request a revision of a groundwater basin boundary.

GSPs for critically ~~overdrafted~~ basins must be completed and adopted by January 31, 2020. GSPs for high- and medium-priority basins not in overdraft must be completed and adopted by the GSA by January 31, 2022. All high- and medium-priority groundwater basins must achieve sustainability within 20 years of GSP adoption.

The ~~legislation aims~~ aim of the legislation is to ~~achieve~~ have groundwater basins management within the sustainable yield of each basin. The legislation defines “sustainable groundwater management” as the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results. ~~This is,~~ which are defined as ~~any of the following effects~~ the: chronic lowering of groundwater levels, significant and unreasonable reductions in groundwater storage, significant and unreasonable seawater intrusion, significant and unreasonable degradation of water quality, significant and unreasonable land subsidence, and surface water depletions that have significant and unreasonable adverse impacts on beneficial uses.

~~The~~ SGMA amends planning and zoning laws to require increased coordination among land use planning agencies and the GSAs, regarding groundwater plans and ~~any~~ updates or modifications of General Plans.

Existing local government land use and groundwater authorities are not modified in the Act. Specific changes to California Government Code resulting from SGMA are detailed in Appendix 10.A at the end of this chapter.

Class II Underground Injection Control Program (State)

As discussed in Chapter 8, Section 8.1 (Energy Resources) there are currently 57 oil companies operating in Ventura County, under the authority of 135 conditional use permits granted by the County ~~to~~ authorize oil and gas activities. This, ~~includes~~ the underground injection of water. According to the California Department of Conservation, Division of Oil, Gas and Geothermal Resources’ (DOGGR), there are 614 active Underground Injection Control (water injection) wells in Ventura County. The State of California was delegated primary responsibility for implementing the Class II Oil and Gas Underground Injection Control [UIC] program of the federal Safe Drinking Water Act [SDWA] in 1983.

To determine whether certain UIC wells were posing a threat to water supply wells, the State Water Resources Control Board (SWRCB) and its regional water quality control boards (RWQCBs) ~~Water Boards~~ completed an

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evaluation of certain UIC wells in December 2016.² Staff from the Water Boards reviewed 6,157 UIC wells determined by ~~DOGGR~~-CalGEM to be injecting into non-exempt aquifers.³ This evaluation included Class II UICs located in Ventura County. UIC wells were screened for proximity to water supply wells or any other indication of risk of impact to drinking water and other beneficial uses.

Based on this screening criteria, ~~DOGGR~~-CalGEM ordered the immediate shut-in of 23 UIC wells, none of which were in Ventura County. (A shut-in well is one which is capable of injection or production but is not in operation). Additionally, the Water Boards issued 71 Information Orders (IOs), requesting additional information from operators of 256 UIC wells. One operator in Ventura County received an IO for a UIC well, which has been abandoned.

In addition to the above UIC regulations, Public Resources Code Section 3106 et. seq. grants ~~DOGGR~~-CalGEM with the authority to supervise the drilling, operation, maintenance, and abandonment of wells and the operation, maintenance, and removal or abandonment of tanks and facilities attendant to oil and gas production and designated pipelines, so as to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil and gas deposits from infiltrating water and other causes; loss of oil, gas, or reservoir energy, and damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of, detrimental substances.

~~Furthermore, the~~ California Code of Regulations, Title 14, Division 2, Chapter 4, Development, Regulation, and Conservation of Oil and Gas Resources includes several provisions which regulate injection projects (water injection wells). ~~DOGGR~~-CalGEM is the responsible agency for approving all underground injection and disposal projects before any subsurface injection or disposal project can begin. This includes all EPA Class II wells and air- and gas-injection wells. There are requirements for filing, notification, operating, and testing for underground injection projects (Sections 1724.10 1748.2, 1748.3), and standards for freshwater protection when plugging and abandoning wells (Section 1723.2). This includes CalGEM~~DOGGR~~'s authority to require testing as necessary to prevent damage to life, health, property, and natural resources (Section 1954).

Clean Water Act (Federal)

The Clean Water Act, ~~as amended,~~ requires permits for the discharge of pollutants to waters of the United States. Implementation of the Clean Water Act and the Porter-Cologne Water Act is the responsibility of the ~~SWRCB~~ State Water Resources Control Board and the ~~Regional Water Quality Control Boards~~. In the Ventura area the applicable Regional Board is the Los Angeles Regional Water Quality Control Board (L~~Aos Angeles~~-RWQCB). The L~~Aos Angeles~~-RWQCB lays out the water quality objectives, regulations, and programs to implement the regulations in the Los Angeles Basin Plan (Los Angeles RWQCB 2014). The Basin Plan is reviewed and updated every three years ~~and, but~~ can be amended at any time. The L~~Aos Angeles~~-RWQCB manages water quality based on "beneficial uses". In Ventura County, there are twenty-four identified beneficial uses:

²The State evaluated "non-exempt" aquifers. The following federal and state criteria must be met for an aquifer to be considered exempt: (a) cannot be a current drinking water source; (b) unlikely to be a future source of drinking water; (c) injection must not impact current/potential future beneficial use; and (d) injection fluids must remain in the proposed exempted area.

³U.S. EPA, Region IX (Pacific Southwest Region) has approved six ~~DOGGR~~ aquifer exemption requests, none of which are in Ventura County.

1. **Municipal and Domestic Supply (MUN).** Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.
2. **Agricultural Supply (AGR).** Uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.
3. **Industrial Process Supply (PROC).** Uses of water for industrial activities that depend primarily on water quality.
4. **Industrial Service Supply (IND).** Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.
5. **Ground Water Recharge (GWR).** Uses of water for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.
6. **Freshwater Replenishment (FRSH).** Uses of water for natural or artificial maintenance of surface water quantity or quality (e.g., salinity).
7. **Navigation (NAV).** Uses of water for shipping, travel, or other transportation by private, military, or commercial vessels.
8. **Hydropower Generation (POW).** Uses of water for hydropower generation.
9. **Water Contact Recreation (REC-1).** Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.
10. **Non-contact Water Recreation (REC-2).** Uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
11. **Marine Habitat (MAR).** Uses of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).
12. **Wildlife Habitat (WILD).** Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.
13. **Commercial and Sport Fishing (COMM).** Uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes.
14. **Aquaculture (AQUA).** Uses of water for aquaculture or mariculture operations including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption or bait purposes.
15. **Warm Freshwater Habitat (WARM).** Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic

habitats, vegetation, fish, or wildlife, including invertebrates.

16. **Cold Freshwater Habitat (COLD).** Uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
 17. **Inland Saline Water Habitat (SAL).** Uses of water that support inland saline water ecosystems including, but not limited to, preservation or enhancement of aquatic saline habitats, vegetation, fish, or wildlife, including invertebrates.
 18. **Estuarine Habitat (EST).** Uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds).
 19. **Wetland Habitat (WET).** Uses of water that support wetland ecosystems, including, but not limited to, preservation or enhancement of wetland habitats, vegetation, fish, shellfish, or wildlife, and other unique wetland functions which enhance water quality, such as providing flood and erosion control, stream bank stabilization, and filtration and purification of naturally.
 20. **Preservation of Biological Habitats (BIOL).** Uses of water that support
- designated areas or habitats, such as Areas of Special Biological Significance (ASBS), established refuges, parks, sanctuaries, ecological reserves, or other areas where the preservation or enhancement of natural resources requires special protection.
 21. **Rare, Threatened, or Endangered Species (RARE).** Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered.
 22. **Migration of Aquatic Organisms (MIGR).** Uses of water that support habitats necessary for migration, acclimatization between fresh and salt water, or other temporary activities by aquatic organisms, such as anadromous fish.
 23. **Spawning, Reproduction, and/or Early Development (SPWN).** Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.
 24. **Shellfish Harvesting (SHELL).** Uses of water that support habitats suitable for the collection of filter-feeding shellfish (e.g., clams, oysters, and mussels) for human consumption, commercial, or sports purposes.

To protect these beneficial uses, the ~~Los Angeles~~ RWQCB has many regulatory programs to reduce pollutants that originate in stormwater, wastewater, agricultural runoff, and recycled water.

~~Los Angeles~~ RWQCB regulates discharges from many classes of municipal stormwater systems through a permit program. The Ventura County Watershed Protection District, County of Ventura, and the cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, Ventura, Santa Paula, Simi Valley, and Thousand Oaks are named as co-permittees under a countywide municipal National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges issued by the ~~RWQCB Regional Water Quality Control Board~~. The co-permittees are required to administer, implement, and enforce a Stormwater Quality Management Program. The goal is to minimize runoff pollution typically caused by land development and to protect the beneficial uses of receiving waters by limiting ~~effective~~ impervious area to no more than five percent of the project area and retaining stormwater on site. The co-permittees require

“Site Design Principles and Techniques,” “Source Control Measures,” “Retention Best Management Practices [BMPs],” “Biofiltration BMPs,” and “Treatment Control Measures” be incorporated into new development and redevelopment projects.

Wastewater from wastewater treatment or industrial activities is typically regulated through waste discharge permits, (also referred to as Waste Discharge Requirements (WDRs)). Through this permit process the RWQCB regulates the place, volume, and specific constituents in discharges to California’s coastal waters, surface waters, and groundwater.

In 2016, the ~~Los Angeles~~ RWQCB readopted a Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands within the Los Angeles Region. Typically referred to as the “Conditional Waiver” program, it requires the owners of irrigated farmland to prepare and submit water quality management plans, conduct monitoring in agricultural drains and other sites influenced by agricultural runoff, and implement BMPs that address the quantity and quality of irrigation return flows and stormwater runoff. The purpose is to limit ~~these~~ discharges, ~~that~~ which carry nutrients, pesticides, sediment, salts, and other pollutants ~~from cultivated fields~~, from reaching surface waters. The Conditional Waiver allows growers to comply as individuals or ~~by working~~ collectively as a “discharger group.” In response to the Conditional Waiver, the Farm Bureau of Ventura County formed the Ventura County Agricultural Irrigated Lands Group (VCAILG), which serves as a unified discharger group for those agricultural landowners and growers who agree to join. The Farm Bureau of Ventura County administers the program on behalf of VCAILG members.

Both the ~~State Water Resources Control Board (SWRCB)~~ and RWQCBs regulate recycled water. Permits are required to operate recycled water facilities and these permits mandate the type of treatment and resultant water quality, mandate ongoing water quality monitoring, and regulate the place and manner of recycled water use. The State Water Resources Control Board’s 2009 Recycled Water Policy, amended in 2013, requires groundwater basins receiving recycled water (e.g., effluent discharge in waterways, injection, recharge, or irrigation) to be managed by Salt and Nutrient Management Plans. The purpose of a Salt Nutrient Management Plan is to optimize recycled water use while ensuring the protection of groundwater supply and beneficial uses, agricultural beneficial uses, and human health. Salt and Nutrient Management Plans are submitted to the RWQCB, which incorporate the plans into the applicable Basin Plan. ~~and~~ The RWQCB requires recycled water facilities and wastewater dischargers to operate in a manner consistent with applicable salt nutrient management plan.

The Clean Water Act also includes a regulatory mechanism called the Total Maximum Daily Load (TMDL) program. A TMDL is specific to a given impairment (chloride, nutrients) and a specific waterbody. A TMDL is a kind of “pollution budget” and includes a calculation of the maximum amount of a pollutant that can occur in a waterbody and still meet water quality standards so as to protect beneficial uses. The TMDL also allocates the necessary reductions to one or more pollutant sources. TMDLs can force the implementation of BMPs, infrastructure improvements, and other actions to limit pollution. Within Ventura County the following TMDLs are in place:

- Ventura River Watershed
 - Algae, Eutrophic Conditions, and Nutrients
 - Trash
- Santa Clara River Watershed
 - Bacteria
 - Chloride
- Calleguas Creek Watershed

- Metals
- Salts
- Trash
- Toxicity
- Toxins/Historic Pesticides
- Nitrogen/Nutrients

Under section 303(d) of the Clean Water Act, states, territories, and tribes are to develop lists of waterbodies that are polluted or otherwise degraded and not meeting water quality standards. The 303(d) List is used to develop TMDLs and/or are used to identify other mechanisms to improve water quality. Several waterbodies in Ventura County are on the current 303(d) List for California (SWRCB 2016).

Permitting of Public Water Systems

The ~~State Water Resources Control Board (SWRCB)~~, Division of Drinking Water (DDW) oversees the permitting of Public Water Systems. On September 29, 2016, Governor Jerry Brown approved Senate Bill 1263 to prevent the formation of small unsustainable water systems. This bill requires a person submitting a permit application for a proposed new public water system to first submit a preliminary technical report to the SWRCB. The bill directs the applicant to undertake additional discussion and negotiation with existing public water systems with the technical, managerial, and financial capacity to provide an adequate and reliable supply of domestic water to the service area of the proposed new public water system. If the SWRCB determines that it is feasible for the service area of the proposed public water system to be served by one or more currently permitted public water systems and if it is reasonably foreseeable that the proposed new public water system will be unable to provide affordable, safe drinking water in the reasonably foreseeable future, the permit will be denied.

County of Ventura Role in Water Management

~~The County of Ventura has a large role to play in water management.~~ Through the General Plan Goals, Policies and Programs, Subdivision and Zoning Ordinances and Building Code, the County of Ventura conditions development to ensure adequate water supply, availability of wastewater disposal, and protection of groundwater and surface water quality. Through its Landscape Design Criteria, Ventura County requires water budget and project use calculations, use of reclaimed water ~~if feasible~~, and water-efficient model home requirements. Per the authority of the Floodplain Management Ordinance, the County restricts and prohibits land uses or land alteration which may be dangerous to health, safety, and property due to modification or obstruction of flood waters or alteration of a water course.

~~In addition to the regulatory setting, the County of Ventura actively undertakes projects to manage~~ water resources; ~~which include but are not limited to, through~~ well permitting, groundwater recharge, stormwater treatment and infiltration, ~~and~~ ~~as well as~~ levees and flood control channels. Ventura County ~~also~~ is responsible for the operation and maintenance of several water and ~~sanitation~~ ~~water~~ utilities ~~within the county~~. ~~VCWPD~~ ~~various county departments also~~ collect and maintain data on countywide water resources. ~~For example, the~~ VCWPD maintains a network of rainfall and streamflow gauges, inventories and inspects groundwater wells, collects water quality data, and groundwater level information.

County of Ventura General Plan Goals, Policies and Programs

The General Plan (2005) Goals Policies and Programs (GPP) include ~~ds~~ goals, policies, and programs related to water resources in Chapter 1, Resources, Section 1.3. In addition to policies in the GPP, the following Area Plans ~~also contain applicable water resource goals and policies related to water resources:~~

- El Rio/Del Norte Area Plan;
- North Ventura Avenue Area Plan;
- Oak Park Area Plan;
- Ojai Valley Area Plan;
- Piru Area Plan;
- Saticoy Area Plan;
- Thousand Oaks Area Plan; and
- Lake Sherwood/Hidden Valley Area Plan.

County of Ventura Ordinances

Subdivision Ordinance

The ~~intent of the~~ County of Ventura Subdivision Ordinance ~~is to regulate and control~~ subdivisions of land and ~~in conjunction,~~ implements the County's General Plan. The ~~Subdivision~~ Ordinance applies to "all divisions, reversions to acreage, lot line adjustments, and mergers respecting real property located wholly or partially within the unincorporated areas of Ventura County" and "governs the filing, processing, approval, conditional approval, or disapproval of tentative, final and parcel maps, map waivers, and any modifications thereto." The ~~Subdivision~~ Ordinance ~~includes the following provisions meant to ensure~~ adequate provision of water, ~~to protect~~ water supply, and ~~to protect~~ surface and groundwater quality.

Provisions to ensure adequate provision of water:

- Section 8203-3, Section 8206-3.8, and Section 8206-3.9. At the tentative tract stage, requires a description of the method and plan for providing a permanent domestic water supply. If the water supply is to be provided by a public water system the tentative tract map must be accompanied by a "water availability letter."⁴ In areas where groundwater supplies have been determined to be questionable or inadequate, a report must also be submitted demonstrating the availability of a permanent domestic water supply to each lot for a period of at least 60 years. At the final map phase, developments not being served water by individual wells, must provide a "water supply certificate" documenting that a binding agreement has been entered into between the owner of the land and water supplier. Also at the final map stage a registered civil engineer must determine (a)

⁴ A water availability letter pursuant to the §8203-3 (l) of the Ventura County Subdivision Ordinance, which requires that the proposed water system of a subdivision provide a letter stating that they will supply permanent domestic water supply to each lot, is not synonymous with the requirement for a water purveyor to supply a "water availability letter" as defined in §1.3.6 of the Ventura County Waterworks Manual, which shall demonstrate that the water purveyor has the necessary water capacity for their entire service area.

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that the water suppliers' system complies with the quality and quantity standards of Title 22 of the California Code of Regulations and that the new development will not impact the water supplier in a way such that the water system will not comply with Title 22 and (b) the facilities of the water supplier's system, including the portion to serve the proposed subdivision, meet or exceed the requirements of the County of Ventura Improvement Standards and Specifications.

- Section 8204-7. Requires that whenever a proposed subdivision is located within the boundaries of a public water agency willing and able to provide water service to the lots, the public water agency shall be chosen as the water purveyor for the proposed subdivision.
- Section 8205-5.1. Requires notification to water, sewage and other service providers prior to Planning Commission hearing on a subdivision (when a tentative map and final map are required).
- Section 8207-2. Prior to recordation of a final map or parcel map, or at such earlier time as may be specified in this Article, the subdivider shall complete or shall enter into an improvement agreement to complete specific improvements including permanent domestic water supply.

Provisions to protect surface and groundwater quality:

- Section 8203-2. Requires water courses and existing or abandoned water wells be identified on tentative maps.
- Section 8203-3. Requires a hydrologic and hydraulic study be submitted with the tentative map indicating the following conditions before and after proposed development of the subdivision: drainage areas, major watercourses, quantity and pattern of storm water, and diversion and collection systems.
- Section 8203-3. Requires a description of the proposed method and plan for sewage disposal for each proposed lot.
- Section 8204-5. Design of a subdivision shall conform to the County of Ventura Flood Plain Management Ordinance and shall provide for the proper drainage of all lots and improvements based on the runoff that can be anticipated from ultimate development of the watershed in accordance with the General Plan. All public facilities including water and sewer, must be located and constructed in a manner to minimize potential flood damage. Any concentrations or increases of surface water resulting from the development of the subdivision must be conveyed by means of adequate facilities to a suitable natural watercourse in the area.
- Section 8207-2. Prior to recordation of a final map or parcel map, or at such earlier time as may be specified in this Article, the subdivider shall complete or shall enter into an improvement agreement to complete specific improvements including: (a) all improvements for drainage and erosion control required for the proposed subdivision, regardless of location, including improvements necessary to prevent sedimentation or damage to off-site property, (b) sewage and permanent domestic water supply systems shall be installed in each proposed subdivision and connections thereto made from each lot within the subdivision, (c) all abandoned water wells within the proposed subdivision shall either be destroyed or be retained subject to a Certificate of Exemption in compliance County of Ventura Code.
- Section 8209-5. As a condition of approval of any subdivision, the tentative map for which is filed no sooner than 30 days after the adoption of any applicable drainage or sanitary sewer plan

for a particular drainage or sanitary sewer area, the subdivider may be required to pay fees or consideration in lieu thereof for the purpose of defraying the actual or estimated costs of constructing planned drainage facilities for the removal of surface and storm waters from local or neighborhood drainage areas and of constructing planned sanitary sewer facilities.

Commented [MJ4]: We don't need to list these, they are already summarized.

Coastal Zone and Non-Coastal Zone Ordinances

The County of Ventura Coastal Zoning Ordinance (CZO) regulates all proposed development in the Coastal Zone of Ventura County; areas outside of this zone are regulated by the Non-Coastal Zoning Ordinance (NCZO). Many of the provisions of the Coastal Zone and Non-Coastal Ordinance are similar to those in the Subdivision Map Act. In relation to water quality, though provisions differ given the proposed land use, generally these ordinances require:

- Obtaining a permit or zoning clearance prior to: (a) constructing or expanding a septic system; (b) constructing, destroying or rehabilitating expanding a water wells, and (c) constructing private water storage and distribution system facilities.
- A-100- to 300-foot setbacks from water channels and prohibition of obstructions to drainage courses.
- Development to be undertaken in accordance with conditions and requirements established by the Ventura Countywide Stormwater Quality Management Program, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS063339 and the Ventura Stormwater Quality Management Ordinance No. 4142 and as these permits and regulations may be amended.
 - Construction activity including clearing, grading or excavation that requires a grading permit shall be undertaken in accordance with any conditions and requirements established by the NPDES Permit or other permits which are reasonably related to the reduction or elimination of Pollutants in Stormwater from the construction site.
 - Preparation of a Stormwater Pollution Control Plan or Stormwater Pollution Prevention Plan for construction activities.
 - Generally new development or redevelopment projects affecting 5,000 square feet or greater must incorporate post-construction stormwater quality design principals for new development or projects affecting 5,000-square feet or greater, details are provided in the Ventura County Technical Guidance Manual for Stormwater Quality Control Measures.
- A unique provision in the NCZO is the definition of the Arroyo Santa Rosa/Tierra Rejada Groundwater Quality Impact Area. In this area, the ratio of developed floor area relative to the parcel size for a second dwelling unit is regulated of developed floor area relative to parcel size to limit the amount of septic discharge to groundwater in the Arroyo Santa Rosa/Tierra Rejada Area.

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Ventura County Watershed Protection Act

This act established the Ventura County Watershed Protection District, its general purpose, and authorities. Pursuant to the Act, the The Watershed Protection District is to:

provides for the flood control of flood and storm water controls.

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conserves such waters for beneficial and useful purposes by spreading, storing, Section 10.2: Legal and Regulatory Framework for Water Management

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retaining and ~~recharging, causing to percolate into the soil;~~

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~~conserving in any manner all or any of such waters and protecting from such flood or storm waters the watercourses, watersheds, public right-of-ways, highways, life and and County property, in the District;~~

- ~~preventing waste of water or diminution of the water supply in, or exportation of water from groundwater basins within the County, the District;~~
- ~~obtain, retain and reclaim drainage, storm, flood and other waters for beneficial use; and~~
- ~~provide for the protecting on from erosion of beaches and shorelines and to providing for the restoration of such beaches and shorelines.~~

~~Under the Act, The Watershed Protection District has the power to undertake projects consistent with its goals purpose and to adopt and enforce corresponding regulations consistent with its purpose. The District has the power to prescribe, revise, and collect fees as a condition of development of land. A permit from the Watershed Protection District must be obtained for most activities in, on, over, under, or across the bed, banks, and overbank areas of local streams and channels.~~

County of Ventura Flood Plain Management Ordinance

This ordinance restricts and prohibits land uses or ~~land alteration which may be dangerous to health, safety, and property due from~~ modification or obstruction of flood waters or alteration of a water course. ~~It~~ Further, this ordinance requires that ~~land uses~~ vulnerable to floods be protected against flood damage at the time of initial construction. The Watershed Protection District implements the Flood Plain Management Ordinance through its encroachment and watercourse permit programs.

County of Ventura Building Code

~~Submittal of grading plans during the Permitted grading projects permitting process~~ requires an applicant to evaluate ~~site soils and geology and site drainage conditions patterns prior to grading. Project Site~~ design must include measures to detain or retain ~~surface runoff, stormflows so that runoff is not appreciably different post development and.~~ Design must include measures to prevent erosion of slopes, ~~such as vegetation, soil stabilizers, and rip rap.~~ The County of Ventura requires (Building Code Section J112) that best management practices be used to prevent erosion and stormwater flows from discharging offsite.

County of Ventura Groundwater Conservation Ordinance

The purpose of Ordinance No. 4468, division 4, Chapter 8, Article 1 is to protect groundwater quality, supply and quantity by regulating the construction, maintenance, operation, use, repair, modification, and destruction of wells and engineering test holes in Ventura County. Such work requires obtaining a permit and approval from ~~Ventura County Watershed Protection District the respective agency authorized to regulate new well construction.~~ Permits shall require compliance with all applicable standards set forth in the Ordinance, and in accordance with DWR California Well Standards Bulletins Nos. 74-81 and 74-90, and County of Ventura Water Well Standards Bulletin No. 74-9.

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SECTION 10.3 INTEGRATED REGIONAL WATER MANAGEMENT

After the passage of Proposition 50 in 2002, Integrated Regional Water Management (IRWM) became a new paradigm for managing water resources with the passage of Proposition 50 in 2002. This approach integrates the many facets of water resources management on a regional level, including water supply, water quality, flood management, ecosystem health, and recreation through enhanced collaboration with various stakeholder groups across geographic and political boundaries and diverse stakeholder groups. The Watersheds Coalition of Ventura County (WCVC) was formed as the IRWM group to develop and implement a plan to identify water management challenges, resolve conflicts over the best use of resources, bridge gaps in data, find common ground, and seek innovative solutions among stakeholders. A primary goal is implementation of projects and programs that efficiently address water management priorities.

The 2014 WCVC Integrated Regional Water Management Plan Goals are outlined as follows:

- Reduce dependence on imported water and protect, conserve and augment water supplies
- Protect and improve water quality
- Protect people, property and the environment from adverse flooding impacts
- Protect and restore habitat and ecosystems in watersheds
- Provide water-related recreational, public access, stewardship, engagement and educational opportunities
- Prepare for and adapt to climate change

Grant funds made available through Proposition 50 (2002), Proposition 84 (2006), and Proposition 1 (2014), have leveraged local funds for project implementation. These funds helped communities, including disadvantaged communities, throughout Ventura County to enhance the availability of clean water supplies for the benefit of people and the environment, to protect communities from flood damage, and to provide access to water-related recreation opportunities. WCVC participants benefit from the cost-sharing, collaboration, and effective problem-solving opportunities made possible by working together. The WCVC completed a 2019 amendment to the 2014 IRWM Plan, which was deemed compliant by the DWR with Proposition 1 IRWM Plan standards.

One example of an ongoing project partially funded through the IRWM Program with Proposition 84 grant funds is the Natural Floodplain Protection Program (NFPP), which is focused on preserving a critical section of the remaining floodplain in the Santa Clara River Watershed. A Floodplain Working Group was formed to develop the project and is comprised of the County's Watershed Protection District, the Ventura County Farm Bureau, The Nature Conservancy, and the Ventura County Resource Conservation District.

The Working Group developed the concept of incentivizing farmers to continue to farm in the floodplain, thus leaving their land undeveloped. This is done by offering to purchase flood (inundation) easements over private land within the floodplain. These easements cover working farmland, a use that is encouraged to continue under the easement. The farmers are financially compensated for keeping their property in the floodplain and giving up rights they may have to develop the land. The value of easements is established through negotiations with individual land owners and verified by an appraisal.

To date, almost 500 acres of flood plain within the Santa Clara River Watershed have been acquired through the Natural Floodplain Protection Program.

Commented [MJ6]: We can leave this here, since that was a section in the IRWM Plan and 2019 update.

SECTION 10.4 EXISTING CONDITIONS

Ventura County covers approximately 1,873 square miles, a large proportion of which (860 square miles, over half a million acres) lies within the Los Padres National Forest. The coastal areas have a generally mild climate, with an average high temperature of 73 degrees Fahrenheit (°F) in July and an average January low temperature of 45 °F (Western Regional Climate Center web site at www.wrcc.dri.edu for Station 049285 Ventura, January 1900 to August 2013). Average rainfall in the coastal areas is 14.67 inches per year (Western Regional Climate Center web site at www.wrcc.dri.edu for Station 049285 Ventura, January 1900 to August 2013). Interior valleys without coastal influence have hotter summers (average high temperature of 93.20 °F in July) and cooler winters (average low temperature of 44.35 °F) but also modest average rainfall of 14.37 inches per year (California Irrigation Management Information System data provided from Station No. 219, Los Angeles region, September 2011 to November 2015 and Station No. 204, Los Angeles Region, January 2007 to August 2011).

The Region contains ~~three~~ four major watersheds (and part of the Cuyama River Watershed), smaller coastal watersheds, and 24 DWR-designated basins (see **Figure 10-1** and **Figure 10-2**). This background report has organized information according to the major watersheds: Ventura River, Cuyama, Santa Clara River, and Calleguas Creek. A small portion of the Malibu Creek Watershed falls in Ventura County. For the purposes of this document, this area is included with information on the Calleguas Creek Watershed. The Oxnard Plain, while not a watershed is an important water feature in the county and is given its own discussion in the text.

Ventura River Watershed

The Ventura River Watershed is located in the northwestern portion of Ventura County and drains an approximately 228-square mile (145,920 acres) area. The watershed extends 33.5 miles from the steep Transverse Ranges of the Matilija Wilderness to the Pacific Ocean. The Matilija, North Fork Matilija, San Antonio, and Cañada Larga are the major tributaries. The watershed is unique in that developed land makes up only 13 percent of the watershed area (Ventura River Watershed Council 2015). Approximately half of the Ventura River Watershed is Forest Service land. This means the upper portion of the Ventura River Watershed is minimally developed and has large areas with good water quality and excellent aquatic habitat. A 30-mile portion of the upper fork of Matilija Creek and its tributaries are designated as Wild and Scenic Rivers. Most of the southern half of the watershed lies within unincorporated Ventura County.

Precipitation in the Ventura River Watershed varies greatly between seasons and across years. There are notable cycles of drought and flood. Most of the precipitation is in the form of rain, but a small portion of the upper watershed experiences snow. Most precipitation occurs during just a few storms between November and March; summer and fall months are typically dry. Many parts of the Ventura River and its tributaries are dry during the summer and fall months (Ventura River Watershed Council 2015).

The cities of Ojai and Ventura are located in the Ventura River Watershed as are the unincorporated communities of Meiners Oaks, Mira Monte, Oak View, and Casitas Springs. Land uses in the watershed are as follows:

- Federal land/National Forest 47.7%
- Undeveloped land 29.8%
- Agriculture 18.5%
- Urban uses 4% (3.1% in cities, 0.9% in unincorporated County)

Commented [MJ7]: Should update with recent general averages. Since drought conditions have been in effect since 2012.

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Surface Water

The major surface water features in the watershed are the Matilija Reservoir, Lake Casitas, and Ventura River.

Matilija Reservoir. Matilija Creek originates in the steep mountains in the northwest corner of the watershed and is considered the headwaters of the Ventura River. Matilija Dam captures the creek to create the Matilija Reservoir, which is owned by the Ventura County Watershed Protection District. Matilija Dam was built in the late 1940s for the purpose of providing irrigation water to the western Ojai Valley. Matilija Reservoir originally provided for 7,018 acre-feet (AF) of water storage. However, the storage capacity of the reservoir has been significantly reduced by sedimentation and is now estimated to be only about 6500 AF (Tetra Tech 2009). The majority of the sediment was deposited during a few big storm years (USACE 2004). Matilija Reservoir no longer provides any water supply benefit. ~~In fact, the dam is now considered an environmental liability. The dam prevents the natural flow of sand and sediment from the mountains to the beaches and it also blocks the endangered steelhead trout from upstream habitat. Since 1999, the Ventura County Watershed Protection District, in partnership with the US Bureau of Reclamation and the US Army Corps of Engineers, have evaluated means to remove the dam. The US Congress approved removal of the dam in 2007. However, dam removal efforts have been stalled by the complicated process of removing the sediment in the reservoir, while protecting fish and wildlife and by significant cost. Efforts to remove the dam are ongoing. In March 2016 the Dam Oversight Group completed an evaluation of three different dam removal concepts, including features to handle the estimated eight million cubic yards of sediment and mitigations for water supply, water quality, and fisheries.~~ ~~The next step is to develop a funding plan.~~

Lake Casitas. Lake Casitas, also called Casitas Reservoir, is the largest reservoir in the Ventura River Watershed, with a capacity of 254,000 AF. The approximate safe yield is 20,000 AFY. When full, the reservoir covers a surface area of 4.3 square miles and has 32 miles of shoreline. Source water for Lake Casitas is direct rainfall on the lake surface, local watershed runoff from Coyote and Santa Ana Creeks, and diversions of the Ventura River made through the Robles Diversion Facility. The lake is operated by the Casitas Municipal Water District (Casitas). The primary purpose of Lake Casitas is to supplement local groundwater. Local groundwater comes from mostly unconfined aquifers whose available supply varies greatly based on rainfall and streamflow conditions. In dry periods, local wells can go dry and water demands are then met using water from Lake Casitas. Casitas ~~Municipal Water District~~ is the primary and/or backup water supply for nine retail water purveyors and for some individual agricultural customers with groundwater wells (Casitas Municipal Water District 2016). Casitas Municipal Water District estimates that there are 70,288 persons within its service area and 8.4 square miles (~5,400 acres) of irrigated crops (Casitas Municipal Water District 2016).

Ventura River. The Ventura River gives its name to the watershed. The condition of the river varies widely over its journey from the mountains to the ocean. The river is typically categorized in five segments:

- The segment above Robles Diversion. Here the river is in steep and narrow terrain.
- The segment below Robles Diversion and above San Antonio Creek. This segment is less mountainous and has a gentle gradient. The Robles Diversion diverts from the west bank of the River. Below the diversion the river widens and becomes a braided channel. Until the confluence with San Antonio Creek, the river is commonly dry – about 80 percent of the time there is no significant flow in the section (Cardno-Entrix 2012).

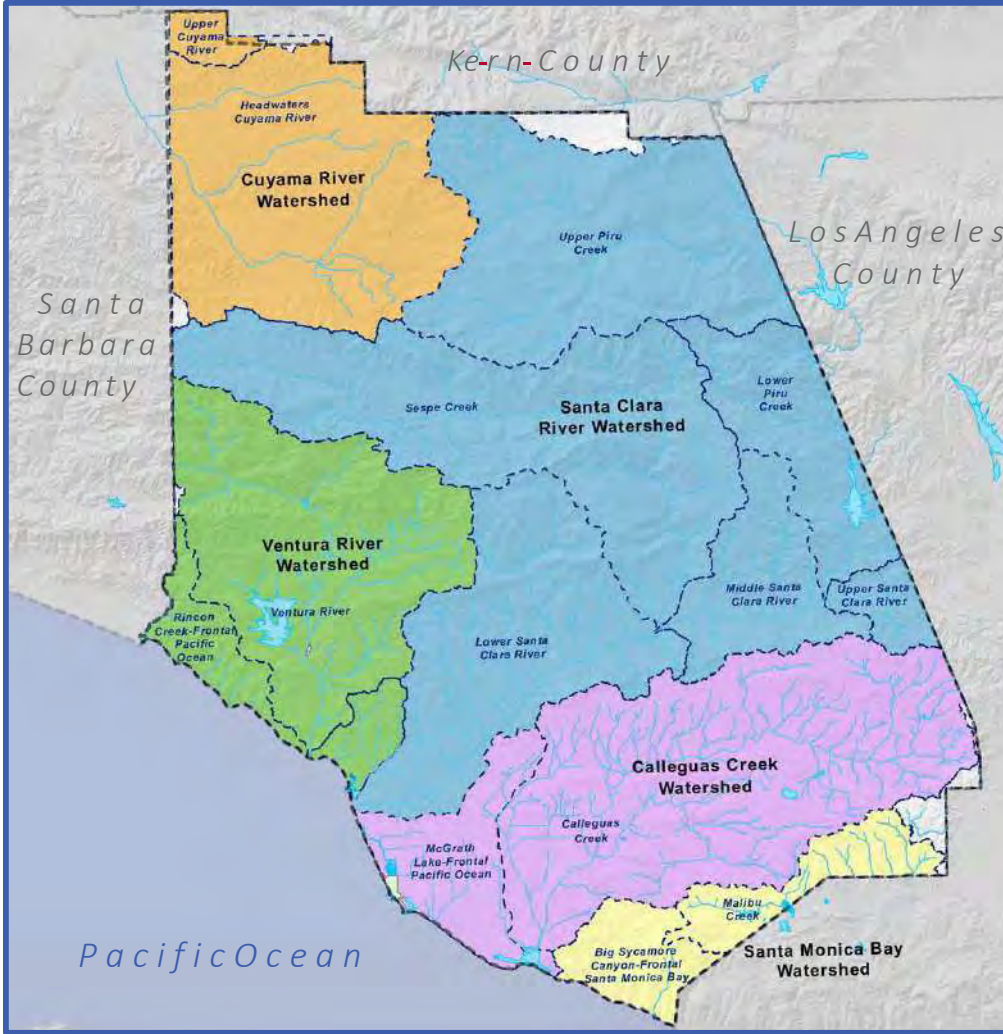
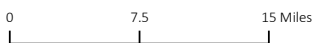


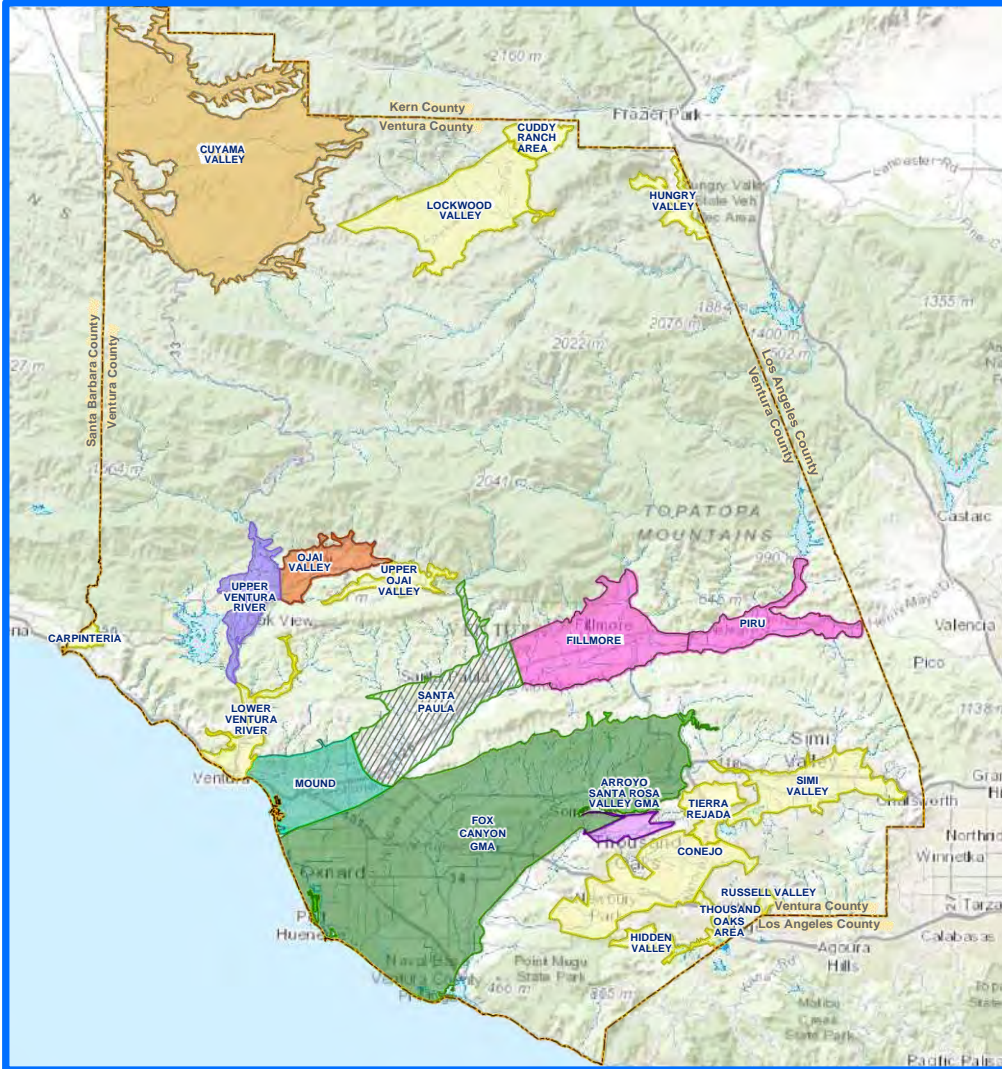
Figure 10-1:
Ventura County Watersheds

Map Date: December 02, 2016

Source: Kennedy/Jenks Consultants, 2016.

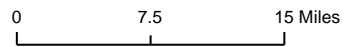


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|-------------------------|-----------------------------|
| Ventura County Boundary | Subwatersheds |
| Rivers/Streams | Calleguas Creek Watershed |
| Water Bodies | Cuyama River Watershed |
| | Santa Clara River Watershed |
| | Santa Monica Bay Watershed |
| | Ventura River Watershed |



**Figure 10-2:
Groundwater Basin Oversight**

Map Date: December 2017
Source: Kennedy/Jenks Consultants, 2017



- | | | |
|----------------|--------------------------------------|-------------------------|
| Ventura County | Groundwater Management Agency | Mound Basin GSA |
| Rivers/Streams | Arroyo Santa Rosa Valley GMA | No Agency |
| Water Bodies | Cuyama Valley Groundwater GSA | Ojai Basin GMA |
| | Fillmore and Piru Basins GSA | Upper Ventura River GSA |
| | Fox Canyon GMA | Adjudicated Basin |

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- San Antonio Creek Confluence to Foster Park. Here the river again narrows. San Antonio Creek enters in this segment. In wet periods this portion of the river can also receive water from “daylighting” groundwater, where groundwater is forced to the surface as a result of geologic constriction near the downstream margin of the upper Ventura River basin. This reach typically flows year-round except in multiyear dry periods (Ventura River Watershed Council 2015).
- Foster Park to Ventura River Estuary. In this reach, the river receives treated effluent from the Ojai Valley Sanitation District wastewater treatment plant. The effluent is a significant input to river flow. Cañada Larga Creek, and several minor drainages (Manuel Canyon Creek, Cañada de San Joaquin, and Dent Drain) also enter in this segment (Ventura River Watershed Council 2015). In this portion of the river, the City of Ventura can divert surface water via subsurface collectors and shallow wells. The wells are located at Foster Park, upstream of the Ojai Valley Sanitation District point of discharge. Between 2010 and 2014, annual production by the City of Ventura from the Ventura River averaged 3,051 AFY.
- The Ventura River Estuary. The estuary is a shallow body of water where the Ventura River mixes with salt water. During the dry season a sandbar typically separates the estuary from the ocean; when storms breach the sandbar, the flow of the river directly enters the Pacific Ocean (Ventura River Watershed Council 2015).

Groundwater

There are four major groundwater basins in the Ventura River Watershed: ~~the~~ Upper Ojai (DWR Basin 4-00-1), Ojai Valley (DWR Basin 4-002), Upper Ventura River (DWR Basin 4-003.01), and Lower Ventura River (DWR Basin 4-003.02) (see **Figure 10-2**). These are unconfined groundwater basins and fluctuate greatly depending on ~~seasonal conditions~~ **precipitation**.

In 2014, DWR ranked California’s groundwater basins as “high-,” “medium-,” “low-,” or “very low-” priority. This ranking was based on the following:

- Overlying population
- Projected growth of overlying population
- Public supply wells
- Total number of wells
- Irrigated acreage overlying the basin
- Reliance on groundwater as the primary source of water
- Impacts on the groundwater; including overdraft, subsidence, saline intrusion, and other water quality degradation
- Other information determined to be relevant by Department of Water Resources

~~In this ranking process the~~ Ojai Valley ~~groundwater basin~~ and Upper Ventura River ~~groundwater~~ basins were deemed ~~high- and medium-~~ **priority, respectively** ~~basins. Dependency on groundwater in these basins is a primary ranking factor. The great dependency on groundwater in this area was a primary factor in the ranking.~~

The Ojai Valley ~~Groundwater~~ Basin is currently managed by the Ojai Basin Groundwater Management Agency (O~~Bjai Basin~~ GMA) and this agency will be the ~~GSA groundwater sustainability agency~~ under SGMA. The O~~Bjai Basin~~ GMA has submitted an Alternative to the GSP which demonstrates that the Ojai Basin is already being sustainably managed, in-lieu of preparing a GSP.

Casitas Municipal Water District, Meiners Oaks Water District, Ventura River Water District, the City of Ventura and the County of Ventura ~~are have started the process of forming the new groundwater sustainability agency~~ Upper Ventura River Groundwater Sustainability Agency for the Upper Ventura River ~~Groundwater~~ Basin.

Important Recharge Areas

In the Ventura River Watershed, groundwater basins are typically surrounded by steep, impermeable bedrock mountainous areas of impermeable bedrock. Recharge ~~primarily~~ occurs within the permeable unconsolidated deposits of gravels and sands ~~underlying within~~ stream channels ~~and tributaries~~.

In order to increase groundwater storage and recharge in the Ojai Valley ~~Groundwater~~ Basin, the San Antonio Spreading Grounds Rehabilitation Project was completed by the Ventura County Watershed Protection District in 2014 and final approval given in 2017 to divert creek flow. ~~It is anticipated the project will increase recharge to the basin by an average of 126 AFY.~~

Other Water Supplies

The Ventura River Watershed relies entirely on local water. No imported water is used ~~in the watershed or is readily accessible~~. Both Casitas ~~Municipal Water District~~ and the City of Ventura hold entitlements to State Water Project water (5,000 ~~and 10,000 AFY acre feet per year~~ [AFY] respectively). ~~however~~ ~~There are currently~~ no means ~~of~~ delivery of imported water to the watershed. ~~However,~~ ~~the~~ City of Ventura is ~~currently~~ evaluating options for delivery of those entitlements. ~~a report is due at the end of 2017.~~

Water Quality

~~As described in Section 10.2, the Los Angeles RWQCB has identified beneficial uses for the Ventura River Watershed.~~ **Table 10-2** is taken from the *Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties* and provides detail on beneficial uses for specific Ventura River reaches. The ~~Los Angeles LA~~ RWQCB has developed permit programs and the TMDLs to protect these beneficial uses. The following TMDLs are in place for portions of the Ventura River Watershed:

- Algae, Eutrophic Conditions, and Nutrients in the Ventura River including the Estuary and its Tributaries – TMDL effective June 28, 2013
- Ventura River Estuary Trash – TMDL effective March 6, 2008

In addition to the existing TMDLs, other TMDLs may be developed as several Ventura River Watershed areas are included in California’s 303(d) List (list of impaired waters). Identified impairments in the Ventura River and its tributaries include fish barriers and pumping/water diversion, total dissolved solids, aluminum, and mercury. Rincon Beach and the Ventura Harbor are listed for impairments due to bacteria. The Ventura Marina jetties are listed as impaired with DDT and PCBs.

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**TABLE 10-2
DESIGNATED BENEFICIAL USES IN THE VENTURA RIVER WATERSHED**

| WATERSHED ^a | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | MIGR | SPWN | SHELL | WET ^b |
|----------------------------------------------------------------|-----|-----|------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|------------------|
| VENTURA COUNTY COASTAL STREAMS | | | | | | | | | | | | | | | | | | | | | | |
| Los Sauces Creek | P* | I | I | I | I | | | | | | I | I | | | | E | | | I | I | | |
| PovertyCanyon | P* | I | I | I | I | | | | | | I | I | | | | E | | | I | I | | |
| MadranoCanyon | P* | I | I | I | I | | | | | | I | I | | | | E | | | I | I | | |
| JavonCanyon | P* | I | I | I | I | | | | | | I | I | | | | E | | | I | I | | E |
| Padre Juan Canyon | P* | I | I | I | I | | | | | | I | I | | | | E | | | I | I | | |
| McGrathLake | | | | | | | | | P | | | | | E | | E | | Ee | | | | E |
| Big Sycamore Canyon Creek | P* | | | | I | | | | | | I | E | | | | E | | | P | P | | E |
| Little Sycamore Canyon Creek | P* | | | | | | | | | | I | | | | | E | | E | | P | | E |
| VENTURA RIVER WATERSHED | | | | | | | | | | | | | | | | | | | | | | |
| Ventura River Estuary | | | | | | | E | | E | | E | E | | E | E | E | | Ee | Ef | Ef | E | E |
| Ventura River Reach 1 (Ventura River Estuary to Main St.) | P* | E | | E | E | E | | | | | E | E | | | | E | | E | E | E | | E |
| Ventura River Reach 2 (Main St. to Weldon Canyon) | P* | E | | E | E | E | | | | | E | E | | | | E | | E | E | E | | E |
| Cañada Larga | P* | | I | I | I | I | | | | | I | I | | | | E | | | I | I | | |
| LakeCasitas | E | E | E | E | P | P | | P | | | E | E | | | | E | | E | | | | |
| Lake Casitas tributaries | E* | | | P | E | | | | | | E | E | | | | E | | P | E | E | | E |
| Ventura River Reach 3 (Weldon Canyon to Casitas Vista Rd.) | P* | E | | E | E | E | | | | | E | E | | | | E | | E | E | E | | E |
| Ventura River Reach 4 (Casitas Vista Rd. to San Antonio Creek) | P* | E | | E | E | E | | | | | E | E | | | | E | | E | E | E | | E |
| Ventura River Reach 4 (San Antonio Creek to Camino Cielo Rd.) | E | E | E | E | E | E | | | | | E | E | | | | E | | Eg | E | E | | E |
| CoyoteCreek | P* | | | | E | | | | | | E | E | | | | E | | | E | E | | E |
| San Antonio Creek (Ventura River Reach 4 to Lion Creek) | E | E | E | E | E | | | | | | E | E | | | | E | | | E | E | | E |
| San Antonio Creek (above Lion Creek) | E | E | E | E | E | E | | | | | E | E | | | | E | | | E | E | | E |
| Lion Creek | I* | I | I | I | | | | | | | I | I | | | | E | | | | | | |
| Reeves Creek | I* | I | I | I | I | | | | | | I | I | | | | E | | | I | I | | |
| Mirror Lake | P* | | | | E | | | | | | E | | | | | E | | | | | | E |
| Ojai Wetland | P* | | | | | | | | | | E | | | | | E | | | | | | E |

**TABLE 10-2
DESIGNATED BENEFICIAL USES IN THE VENTURA RIVER WATERSHED**

| WATERSHED ^a | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | IMGR | SPWN | SHELL | WET ^b | |
|----------------------------------------------------------------------|-----|-----|------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|------------------|---|
| VENTURA COUNTY C O A S T A L S T R E A M S | | | | | | | | | | | | | | | | | | | | | | | |
| Ventura River Reach 5 (above Camino Cielo Rd.) | E | E | E | E | E | E | | | | | E | E | | | | E | | Eg | E | E | | E | |
| Matilija Creek Reach 1 (Ventura River Reach 5 to Matilija Reservoir) | P* | | | | E | | | | | | | E | | | | E | | | | E | E | | E |
| Matilija Creek Reach 2 (above Matilija Reservoir) | P* | | | | E | | | | | | | E | | | | E | | | | E | E | | E |
| Murietta Canyon Creek | P* | | | | E | | | | | | | E | | | | E | | | | E | E | | E |
| North Fork Matilija Creek | E* | E | E | E | E | | | | | | E | E | | | | E | | | E | E | E | | E |
| Matilija Reservoir | E | | | | E | E | | | | | E | E | | | | E | | | | E | E | | E |

E: Existing beneficial use

P: Potential beneficial use

I: Intermittent beneficial use

E, P, and I: shall be protected as required

* Asterisked MUN designations are designated under SB 88-63 and RB 89-03. Some destinations may be considered for exemption at a later date.

a: Waterbodies are listed multiple times if they cross hydrologic area or subarea boundaries. Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.

b: Waterbodies designated as WET may have wetlands habitat associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.

c: Coastal waterbodies which are also listed in inland Surface Waters Tables (2-1) or in Wetlands Table (2-4).

e: One or more rare species utilizes all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

f: Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.

g: Condor refuge.

Source: Table 2-1. Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties (electronic copy accessed December 27, 2016).

Available Water Supplies

The sources of water supply in the Ventura River watershed include surface water from Lake Casitas, Ventura River, and groundwater. Available surface water supplies (from Lake Casitas) are reported have been quantified by Casitas Municipal Water District (2020) as 99,836 AF. The City of Ventura draws approximately 20% of its water resources produced an average of 3,051 AFY from 2010 to 2014 from the Ventura River. It is estimated that private landowners may divert as much as 1,100 AFY from the Ventura River, but records are not available to confirm the long-term Ventura River surface water supply available to private users (SWRCB eWRIMS database).

Estimating groundwater supply is quite a bit more difficult. To understand long-term yield of a groundwater basin, recharge from precipitation must be estimated, recharge from irrigation and other return flows must be calculated, and underflow and outflows to and from adjacent groundwater basins must be assessed. There is not an accepted long-term yield for any of the groundwater basins in the Ventura River Watershed. However, the DWR has made rough estimates of groundwater “budgets” by evaluating available groundwater studies and past groundwater extractions. The VCWPD has also prepared estimates of groundwater use in various different basins. Groundwater use is only a rough estimate of supply. Groundwater extractions may include water recharged in the distant past and may not be representative of the long-term yield. Table 10-3 provides an estimate of supply by groundwater basin in the Ventura River Watershed. The difference in the high and low supply estimates document the lack of data on groundwater supply.

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| Basin | DWR Estimate of Groundwater Budget (AFY) | Past Groundwater Extractions (AFY) | Notes |
|-----------------------------------------------------------------|-------------------------------------------------|-------------------------------------------|--------------|
| Upper Ojai | 1,320 | 700 | 1 |
| Ojai Valley | 3,150 to 3,300 | 8,404 | 2, 3 |
| Upper Ventura | None | 10,392 | 4, 5 |
| Lower Ventura | 1,200 | 400 | 6 |
| <i>Low Estimate Groundwater Supply Ventura River Watershed</i> | | <i>14,600</i> | <i>7</i> |
| <i>High Estimate Groundwater Supply Ventura River Watershed</i> | | <i>21,300</i> | <i>7</i> |
| Notes: | | | |
| 1. DWR 2003, Basin 4-1 | | | |
| 2. DWR 2003, Basin 4-2 | | | |
| 3. Ventura County Watershed Protection District 2015a | | | |
| 4. DWR 2003, Basin 4-3.01 | | | |
| 5. Ventura County Watershed Protection District 2015a | | | |
| 6. DWR 2003, Basin 4-3.02 | | | |
| 7. Rounded to nearest 100 AF | | | |

A total estimate of supply in the Ventura River Watershed is provided in **Table 10-4**.

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| TABLE 10-4 CURRENT (2016) TOTAL WATER SUPPLY ESTIMATES VENTURA RIVER WATERSHED | |
|--------------------------------------------------------------------------------------|--------------------|
| Supply Source | Annual Volume (AF) |
| Surface Water, Lake Casitas | 20,000 |
| Surface Water, Ventura River | 3,051 |
| Groundwater (see Table 10-3) | 14,600 to 21,300 |
| <i>Low Estimate (rounded to nearest 100 AF)</i> | <i>37,700</i> |
| <i>High Estimate (rounded to nearest 100 AF)</i> | <i>44,400</i> |

Water Suppliers

There are five major water suppliers (entities serving more than 1,000 persons) in the Ventura River Watershed as well as 11 mutual water companies. ~~Persons or businesses in the Water is Ventura River Watershed are~~ also supplied by private wells and surface water diversions.

~~M~~The major urban suppliers, documented in **Table 10-5** provide water to the cities of Ojai and Ventura, and ~~also~~ to the unincorporated County. These are also mapped in **Figure 10-3**.

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The 11 mutual water companies provide water to their stockholders and members. These mutual water companies ~~can~~ serve as few as 10 people and up to 800 persons. ~~M~~The mutual water companies, documented in **Table 10-6** provide water almost exclusively to residents and businesses in the unincorporated County (see ~~also~~ **Figure 10-3**).

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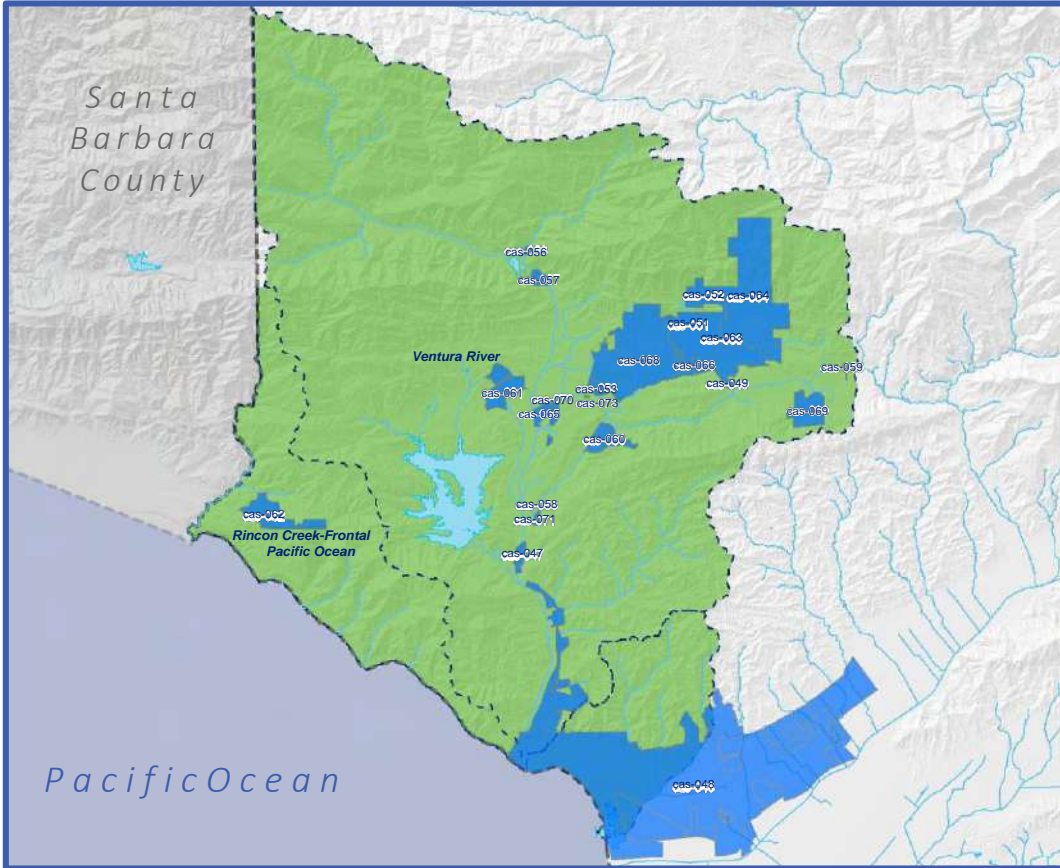
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**TABLE 10-5
MAJOR WATER SUPPLIERS - VENTURA RIVER WATERSHED**

| Supplier/Primary Source(s) | Type | Area Served | Estimated Population Served | Annual Water Supplied* |
|----------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Casitas Municipal Water District Surface water from Lake Casitas | Special District | City of Ojai, portion of the City of Ventura, coastal Rincon, Upper Ojai, and Ventura River Valley. | ~70,300 | ~16,700 AF, includes ag sales and sales to other agencies |
| Ventura Water Lake Casitas water, Ventura River, groundwater (Oxnard Plain, Mound, Santa Paula Basins), recycled water | City | City of Ventura and 1.5 square miles (~960 acres) within City's sphere of influence. City falls within both the Ventura and Santa Clara Watersheds. | ~112,400 | ~16,700 AF, a portion of this supply is provided by Casitas Municipal Water District (5-year average 2011 to 2015 City of Ventura 2016a) |
| Golden State Water Company Ojai Valley groundwater and Lake Casitas | Investor Owned Utility | City of Ojai and adjacent unincorporated County. | ~8,200 | ~2,300 AF, a portion of this supply is provided by Casitas Municipal Water District. |
| Ventura River Water District Upper Ventura River groundwater and Lake Casitas | Special District | Part of Casitas Springs, Burnham Road area west of the Ventura River, northern portion of Oak View | ~6,000 | ~1,400 AF, a portion of this supply is provided by Casitas Municipal Water District |
| Meiners Oaks Water District Upper Ventura River groundwater and Lake Casitas water | Special District | Portion of the Meiners Oaks Community east of the Ventura River. | ~4,000 | ~1,100 AF, a portion of this supply is provided by Casitas Municipal Water District |

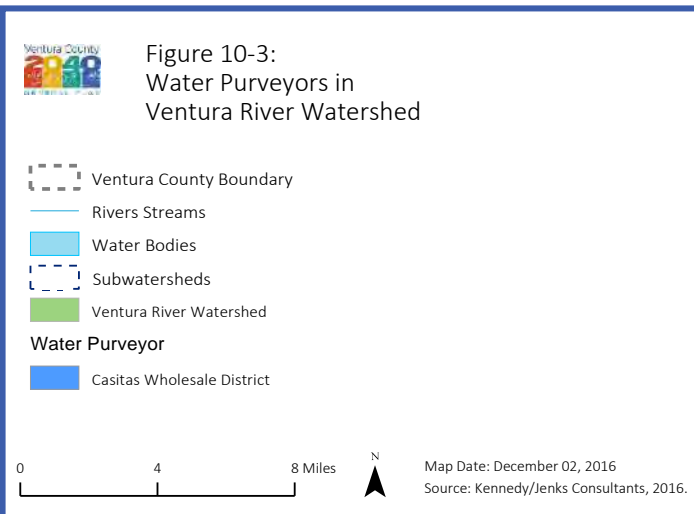
*Estimated based on records of water supplied 2010 to 2015, rounded to nearest 100 AF. Does not account for planned future expansion of demands and supplies.

Source: Ventura River Watershed Council 2015 Table 3.4.1.2.1, Casitas Municipal Water District 2016, City of Ventura 2016a, City of Ventura 2016b, Meiners Oaks Water District 2014, Ventura River Water District <http://venturariverwd.com/about-2/> accessed December 29, 2016.



WATER PURVEYOR

| CASITAS WHOLESALE DISTRICT | |
|----------------------------|-----------------------------------------|
| SUPPLIER | WATER COMPANY |
| Casitas (cas-047) | Casitas MWC |
| Casitas (cas-048) | City of San Buenaventura |
| Casitas (cas-048) | City of Buena Vista |
| Casitas (cas-049) | Sanjon Park Water System |
| Casitas (cas-068) | Golden State Water Company - Ojai |
| Casitas (cas-051) | Gridley Road Water Group |
| Casitas (cas-052) | Hermitage MWC |
| Casitas (cas-053) | Krotona Institute of Theosophy |
| Casitas (cas-056) | North Fork Springs MWC |
| Casitas (cas-063) | Ojai Water Conservation District |
| Casitas (cas-057) | Ojala |
| Casitas (cas-058) | Old Creek Road MWC |
| Casitas (cas-059) | Oviatt Water Association |
| Casitas (cas-060) | Rancho del Cielo MWC |
| Casitas (cas-061) | Rancho Matilija MWC |
| Casitas (cas-062) | Rincon Water and Roadworks |
| Casitas (cas-064) | Senior Canyon MWC |
| Casitas (cas-065) | Sheriff's Honor Farm |
| Casitas (cas-066) | Siete Robles MWC |
| Casitas (cas-069) | Sulphur Mountain Road Water Association |
| Casitas (cas-070) | Tico MWC |
| Casitas (cas-071) | Tres Condados |
| Casitas (cas-073) | Villanova Road Water Well Association |



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**TABLE 10-6
MUTUAL WATER COMPANIES VENTURA RIVER WATERSHED**

| Supplier | Type | Area Served | Estimated Population Served |
|-----------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Casitas Mutual Water Company | Mutual | Residents in Casitas Springs, west of Highway 33. | ~250 |
| Gridley Road Water Group | Mutual | Agriculture in the Gridley Road and Grand Avenue area in eastern Ojai Valley. | ~44 |
| Hermitage Mutual Water Company | Mutual | Agriculture and several large residential estates in the area of Gridley and Senior canyons north of the Ojai Valley. | ~35 |
| North Fork Springs Mutual Water Company | Mutual | Residential users located along Highway 33 north of the City of Ojai and east of the Matilija Reservoir, in Los Padres National Forest. | ~10 |
| Old Creek Road Mutual Water Company | Mutual | Residential users along East Old Creek Road. | ~12 |
| Rancho Matilija Mutual Water Company | Mutual | Agricultural parcels in the Rancho Matilija subdivision, north of Baldwin Road and west of Meiners Oaks. | 0 |
| Rancho del Cielo Mutual Water Company | Mutual | Residential and agricultural users along Creek Road along San Antonio Creek. | ~18 |
| Senior Canyon Mutual Water Company | Mutual | Northeast end of the Ojai Valley, north of Reeves Creek, east of Carne Road. | ~800 |
| Siete Robles Mutual Water Company | Mutual | Housing tract east of the City of Ojai | ~245 |
| Sisar Mutual Water Company | Mutual | Summit area of the Upper Ojai Valley | ~325 |
| Tico Mutual Water Company | Mutual | Residential are in Mira Monte, west of Highway 33 | ~77 |

Source: Ventura River Watershed Council 2015 Table 3.4.1.3.1

Private wells and water diversions serve the remaining agricultural and domestic water users ~~in the watershed~~. Twenty-one different entities are registered with the ~~SWRCB State Water Resources Control Boards~~ as having rights to withdraw surface water from the Ventura River Watershed (SWRCB 2014 cited in Ventura River Watershed Council 2015). There are ~~442 active wells~~ in the Ventura River watershed (Ventura River Watershed Council 2015). It is estimated that these private users extract as much as 2,100 AF (Hydrometrics 2015).

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Estimates of Water Demand

In 2014, the Ventura County Watershed Protection District undertook an estimate of countywide water demand. This effort used data from water agencies and groundwater reporting (where available). However large geographic areas of Ventura County are ~~served by~~ not served by a water agency, but rather private wells or surface water diversions. Also, not all groundwater production is reported. Further, the agricultural groundwater ~~extractions~~ production that ~~are~~ is reported ~~are~~ is not metered in many areas ~~and~~ but rather estimated from electrical use or crop type. ~~To fill in data gaps a~~ demand calculator was used ~~to fill in data gaps~~. In this case the Integrated Water Flow Model (IWFM) Demand Calculator developed by the ~~DWR~~ California Department of Water Resources was used. This is a non-proprietary model that computes water demands for cropped areas using ~~specified~~ climatic and irrigation information. The IWFM calculator also estimates urban water requirements and return flows based on population and per-capita water usage. The resulting report, *County of Ventura 2013 Water Supply and Demand*, estimates current demands for each of the major watersheds, including the Ventura River Watershed. Results of the study are provided in **Table 10-7**.

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| Watershed/Sub-watershed | Total Agricultural Demand (AF) | Total Municipal Demand (AF) | Total Demand (AF) |
|---------------------------------------------|---------------------------------------|------------------------------------|--------------------------|
| Rincon | 5,727 | 1,848 | 7,575 |
| Ventura River | 11,745 | 13,351 | 25,096 |
| <i>Subtotal (rounded to nearest 100 AF)</i> | <i>17,500</i> | <i>15,200</i> | 32,700 |

Source: Hydrometrics 2015. Table 6.

Notable in Table 10-7 is the distribution of demands. Agricultural demand is estimated to be slightly higher than municipal demand.

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Demand Management

Table 10-8 summarizes the various water conservation actions ~~undertaken~~ in the Ventura River Watershed. **Table 10-8** summarizes demand management measures ~~undertaken~~ under normal conditions as well as ~~those extra ordinary~~ efforts taken during drought periods. Conservation actions intensify during drought. ~~Most a~~ Agencies ~~continuously~~ provide public information on how to conserve water, however these efforts ~~increase~~ expand exponentially during dry periods. ~~During normal conditions a water provider may just provide public information on their website or billing inserts; during drought, the water provider is likely to take out radio advertisements, place roadway signs, and run conservation contests to bring attention to the drought. Many agencies offer water use surveys to customers upon customer request; during drought the water agencies contact high water users and offer water efficiency incentives.~~ The demand management measures undertaken during drought depend on the severity and length of drought. ~~In the beginning of a drought outdoor irrigation may be limited to 3 days a week, as drought continues outdoor watering may be restricted to one day a week or even prohibited all together.~~

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**TABLE 10-8
DEMAND MANAGEMENT MEASURES IN VENTURA RIVER WATERSHED**

| Agency | Conservation Measures in Effect at All Times | | | | | | | Conservation Measures that May Be Implemented in Drought | | | | |
|------------------------------------------|----------------------------------------------|--------------------------|----------|----------------------|-----------------------------------------------|-----------------------------------------------|-------------------------|----------------------------------------------------------|---------------------------------------------|----------------------------------|-------|-------------------------------------|
| | Public Information and Outreach | Water Waste Prohibitions | Metering | Volume-Based Pricing | Water Efficiency Surveys Offered to Customers | Rebates for High Efficiency Plumbing Fixtures | Turf Removal Incentives | Drought Surcharge | Limitations on Irrigation/ Outdoor Watering | Mandatory Reductions/ Allocation | Fines | Suspension of new water connections |
| Casitas Municipal Water District | X | X | X | X | X | X | X | | X | X | X | X |
| Ventura Water | X | X | X | X | X | X | X | X | X | X | X | X |
| Golden State Water Company | X | X | X | X | X | X | | X | X | | | |
| Ventura River Water District | X | | X | X | X* | X* | X* | X | X | | X | |
| Meiners Oaks Water District | X | | X | X | X* | X* | X* | X | | X | X | X |
| Ojai Basin Groundwater Management Agency | X | | X | X | | | | | | | | |

*Offered by Casitas Municipal Water District

Sources: Casitas Municipal Water District 2016; City of Ventura 2016b; Golden State Water Company 2011; Ventura River Water District 2016; Meiners Oaks Water District 2016.

Comparison of Supply and Demand

~~While it is difficult to quantify, it~~ is estimated that there is between ~~157,436~~~~37,700 AF to 44,400 AF~~ of annual water supply in the Ventura River Watershed. This supply will vary given drought and operational conditions. Estimated demand is approximately ~~14,508~~~~32,700 AF and is only about 13-percent greater than demand.~~

~~There are concerns about long-term supplies. SGMA could result in a need to reduce groundwater pumping.~~ Some water agencies in the Ventura River Watershed are evaluating projects to increase supply. ~~Several mutual water agencies that receive water from Casitas Municipal Water District have sent letters to Casitas Municipal Water District urging them to pursue options to bring imported water into the watershed.~~ The City of Ventura is pursuing additional use of recycled water, including indirect and direct potable reuse and is studying ocean desalination (City of Ventura 2016b).

Water-Related Challenges

Below are the water related challenges for the Ventura River Watershed as of ~~early 2020~~~~late 2016~~:

Drought and Supply Variability

The 70,000 people in western Ventura County have been impacted by ~~the~~ drought ~~conditions~~ that began in 2012. Due to lack of distribution infrastructure and required agreements, imported water cannot be delivered to western Ventura County and groundwater ~~supply~~ is very limited. Recharge to groundwater is primarily from Ventura River flow and smaller amounts from direct precipitation, percolation from lesser creeks and channels, and mountain ~~front~~ recharge. The groundwater in the area is relatively shallow and responds quickly to rainfall ~~or lack thereof~~. Wells operated by Meiners Oaks Water District have gone dry due to low water levels in the Ventura River and ~~they~~ are now entirely dependent on purchases of Lake Casitas water. Ventura River Water District ~~has only one of its four wells still in operation; operates six wells and~~ customer needs are ~~being~~ served through purchases of Lake Casitas water supplies. ~~Since 2011, purchases of Lake Casitas water have increased by 1,000 percent. The lake is an important, but dwindling, resource with both water quality and water supply concerns.~~

~~As of early 2020,~~ ~~the water level~~~~water volume~~ in Lake Casitas ~~is slightly above~~~~has dropped below~~ 40 percent of its “full” volume ~~since the onset of the drought in 2012~~. Low water levels in 1968 resulted in significant thermal stratification and anoxic (without dissolved oxygen) conditions, rendering the lake generally unsuitable for aquatic life. The low oxygen levels also created an environment where ~~manganese and hydrogen sulfide, normally trapped in sediments, became soluble, causing the lake~~ water to have ~~color and odor issues~~~~a brown color and bitter metallic taste~~. There were also large blue-green algae blooms (Casitas Municipal Water District 2013). Casitas Municipal Water District ~~has had~~ ~~to~~ installed a second lake aeration system to avoid anoxic conditions.

Mandatory drought reductions are in place for customers in the Ventura Watershed. Depending on the water supplier, customers need to reduce water use by up to 30 percent.

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Section 10.4: Existing Conditions

Water for Environmental Purposes

As water agencies plan to rehabilitate infrastructure or develop more supply there ~~are potential~~ can be conflicts with protecting environmental resources ~~and demonstrates the influence laws and regulations, such as the Endangered Species Act, have on water resources.~~

The Robles Diversion is the facility that diverts Ventura River water to Lake Casitas. A “Biological Opinion,” (BO) written by the National Marine Fisheries Service includes requirements to provide flow for the migration and passage of the steelhead up and down the main stem of the Ventura River and past the diversion during the steelhead migration season (January 1 to June 30). Implementation of the flow release requirements of the BO started in 2005. The Robles Fish Passage Facility became operational in 2006. There is concern by Casitas Municipal Water District that future changes to the BO could require costly infrastructure and impact diversions to, and the water supply within, Lake Casitas.

In 2008, the City of Ventura began conducting studies of Ventura River flow conditions in order to operate its Foster Park facilities in a more sustainable manner. The City is working towards developing a pumping regime that will balance production demands with environmental concerns. Presently, the City has voluntarily adopted a production schedule that limits its pumping based on annual rainfall conditions. ~~Ventura Water intends to work with experts to ascertain a pumping regime that will balance production with environmental concerns and is presently studying the relationship between groundwater production and surface flows.~~

Quality

~~W~~In the Ventura River Watershed water quality is generally not an impairment for domestic water supply ~~to using water for domestic water supply. However, o~~Other beneficial uses such as fisheries-habitat, wildlife habitat, and recreation are negatively affected by water quality in the Ventura River. W~~The majority of~~ water quality problems involve eutrophication (excessive nutrients, nitrogen, and the resulting algae blooms) and affect the portion of the river from Foster Park to the Estuary. M~~The major~~ nitrogen contributors to the Ventura River are~~were~~ identified by the Los Angeles ARWQCB as: wet-weather runoff from urban areas, wet-weather runoff from horse/livestock land uses, wet-weather runoff from open space, and discharges from the Ojai Valley Sanitary District Wastewater Treatment Plant. The Algae TMDL was adopted by the LARWQCB ~~Los Angeles Regional Water Board in December 2012. The TMDL~~ sets limits on the amount of nutrients that can be discharged from various sources, and requires upgrades to the sewage treatment plant, and and requires widespread implementation of BMPs to limit fertilizer and animal waste and other sources of nitrogen ~~from the river.~~

Cuyama Watershed

~~Only~~Limited data is available on the portion of the Cuyama Watershed within Ventura County. The Cuyama Watershed originates in a remote mountainous area of Ventura County within the Los Padres National Forest, but also falls within Kern, Santa Barbara, and San Luis Obispo counties. DWR~~The California Department of Water Resources~~ has categorized the Cuyama Groundwater Basin as being in “critical overdraft” and a GSA~~groundwater sustainability agency~~ is being formed. Based on information from the United States Geological Survey (USGS), the critical overdraft conditions of the Cuyama Groundwater Basin reflect extractions and uses outside of Ventura County. The portion inside Ventura County is referred to as the Ventucopa Uplands (USGS 2014). The area is lightly populated, but is used for irrigated agriculture. The USGS estimates the groundwater supply in the Ventucopa Uplands to be approximately 22,000 AFY with domestic demands of only 8 AFY and agricultural demands of approximately 10,000 AFY. ~~Nevertheless, as a whole, the basin is in a condition of overdraft.~~

Oxnard Plain

The Oxnard Plain is an important geographic area for water resources (see **Figure 10-2**) and ~~The Oxnard Plain~~ supplies large amounts of groundwater for municipal users ~~including the county's largest city, Oxnard~~. It's estimated that the Oxnard Plain also supplies the water for more than half of the county's

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\$2.2 billion agricultural industry (Ventura County Agricultural Commissioner 2016). The Oxnard ~~Plain Groundwater Basin is a~~ Subbasin ~~of the Santa Clara River Valley Groundwater Basin~~ (DWR Groundwater Basin Number 4-004.02). ~~The Oxnard Plain Groundwater Basin is~~ an alluvial basin containing a collection of interconnected aquifers separated by layers of clay strata. The ~~Oxnard Plain Groundwater Basin can be generally~~ subbasin is categorized into three parts: the Oxnard Forebay, the Upper Aquifer System (UAS) and the Lower Aquifer System (LAS).

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The Oxnard Forebay is the unconfined portion of the ~~subbasin Oxnard Plain Basin~~ generally located along the Santa Clara ~~ita~~ River northeast of where the Pacific Coast Highway joins U.S. Highway 101 in the City of Oxnard. ~~The Oxnard Forebay is the primary means by which the Oxnard Plain Groundwater Basin is recharged.~~ The ~~subbasin Forebay Basin~~ is recharged by infiltration from ~~the riverbed of the~~ Santa Clara River and spreading basins ~~constructed for that purpose~~. ~~From the Oxnard Forebay, located in the upper most portion of the Oxnard Plain Basin,~~ groundwater moves into the Upper and Lower Aquifer Systems because the clay layers which separate the aquifers are not continuous ~~at this location~~.

The ~~Upper Aquifer System (UAS)~~ comprises of the upper 500 feet of the confined portions of the Oxnard ~~Subbasin Plain Basin and~~ which includes a semi-perched zone and the Oxnard and Mugu aquifers. The UAS is hydraulically connected to the Pacific Ocean through the Oxnard and Mugu aquifers and is the route by which seawater ~~intrusion~~ enters the ~~subbasin Oxnard Plain Basin~~. The ~~Lower Aquifer System (LAS)~~ ~~includes the deeper confined aquifers~~ includes the Hueneme, Fox Canyon, and Grimes Canyon aquifers. The LAS is separated by an approximately 80-foot thick layer of silty clay which is continuous except near the ~~Oxnard~~ Forebay.

Because of its importance as a water source, there is ~~great~~ concern about the health of the Oxnard ~~Subbasin Plain basin~~. ~~The FCGMA~~ In fact, the Fox Canyon Groundwater Management Agency (Fox Canyon GMA) was formed in 1982 to control groundwater overdraft and ~~to minimize the threat of~~ seawater intrusion ~~in the Oxnard Plain~~. ~~A major goal of the F~~ Fox Canyon GMA is to regulate ~~s~~ groundwater from the Oxnard ~~Subbasin~~ and ~~operate the basin~~ at a safe yield. ~~However, today~~ DWR has characterized the basin as being in "critical overdraft". Evidence suggests that groundwater ~~underlying~~ in the Oxnard Plain dropped below sea level as early as the 1940s. The annual overdraft is estimated to be 20,000 to 25,000 AFY (UWCD 2017b). This continued overdraft allows seawater intrusion and puts the area at risk of land subsidence.

Santa Clara River Watershed

The Santa Clara River headwater is at Pacifico Mountain in the San Gabriel Mountains and ~~it flows in a~~ ~~generally western direction~~ for approximately 84 miles through Tie Canyon, Aliso Canyon, Soledad Canyon, the Santa Clarita Valley, the Santa Clara River Valley, and the Oxnard Plain before discharging to the Pacific Ocean near the Ventura Harbor. The Santa Clara River and tributary ~~iesy system~~ ~~haves~~ a watershed area of about 1,634 square miles (~1,000,000 acres). ~~Approximately 40 percent of the~~ watershed is in Los Angeles County, with the remaining 60 percent in Ventura County. The Santa Clara River is unique in that it is the largest river system in Southern California ~~remaining~~ in a relatively natural state.

The climate of the Santa Clara River watershed is characterized by long, dry periods and a relatively short wet winters. Near the coast, cool moist ocean winds produce moderate temperature; summer highs average 74°F, winter lows average 44 °F, and frost is rare (Western Regional Climate Center Station 0492852 Ventura). Inland temperatures can exceed 110 °F in the summer and drop below freezing in the winter (Western Regional Climate Center Station 047957 Santa Paula). Precipitation is generally in the form of winter storms, thunderstorms, and tropical cyclones. Approximately 75 percent of the annual precipitation occurs from December through March. The mean seasonal precipitation varies from about 40 inches in the mountainous areas of the watershed, to about 18 inches in the Piru and Fillmore areas (Western Regional Climate Center Stations 046940 Piru ESE and Station 043050 Fillmore WNW) and under 15 inches at the coast (Western Regional Climate Center Station 049285 Ventura).

The cities of Fillmore, Santa Paula, Oxnard, and Ventura are located in the watershed as are the communities of Piru, Bardsdale, Saticoy, and El Rio. Land uses in the Ventura County area of the watershed are as follows:

- Agriculture 42%
- Open Space 27%
- Urban Uses 26%
- Other (urban reserve, open space reserve, harbor) 5%

Surface Water

The major surface water features in the watershed are the Lake Piru Reservoir and the Santa Clara River.

Lake Piru Reservoir. The construction of Santa Felicia Dam on Piru Creek in 1955 created the Lake Piru Reservoir for the purpose of recharging groundwater. The reservoir can store approximately 82,000 AF (UWCD 2016). The reservoir receives winter runoff from local drainages and can receive imported SWP water from Pyramid Lake. Water from Lake Piru is released into Piru Creek and flows to the Santa Clara River where it is joined by runoff from Sespe and Santa Paula Creeks. The releases are used to replenish underground aquifers, and water is made available to municipalities, industry, and agriculture (UWCD 2016). Lake Piru is operated by United Water Conservation District (UWCD). Generally, UWCD schedules a fall conservation release from Lake Piru to recharge both the Piru and Fillmore Subbasins. The remaining portion of the flows are diverted at the Freeman Diversion for recharge in the Oxnard Forebay area and distribution to agricultural users.

However, drought and low inflow into Lake Piru will prevent UWCD from performing conservation releases in some years. Operation of the Santa Felicia Dam is regulated by the Federal Energy Regulatory Commission (FERC). The FERC license to operate Santa Felicia Dam has many requirements for structural safety, public safety, water quality, recreational opportunities and protection of biological resources. Specific FERC license requirements include releasing water to allow migration of steelhead in Piru Creek and portions of the Santa Clara River (dependent on river conditions), as based on the applicable to the National Marine Fisheries Service biological opinion.

Santa Clara River. Due to climatic and geologic factors, streamflow in the Santa Clara River can be described as interrupted perennial: with alternating perennial reaches and intermittent (summer dry) reaches influenced by surface and water-groundwater interactions (SFEI 2011). Flow is supplemented by releases from Lake Piru Reservoir and tributary inflows from tributaries. About 10 miles from the River mouth, UWCD can divert water at the Freeman Diversion for recharge of the Oxnard Subgroundwater basin. Several mutual water companies operate small diversions located on Piru Creek, Sespe Creek,

Background Report

County of Ventura

and the Santa Clara River for agricultural irrigation; ~~the amount of water diverted at these locations are unknown~~ (Ventura County Watershed Protection District 2015b). In the past, several wastewater treatment plants discharged to the Santa Clara River. With the exception of the City of Ventura, most wastewater treatment facilities have been upgraded and now percolate treated effluent to groundwater rather than releasing water to the Santa Clara River (Ventura County Watershed Protection District 2015b). ~~The wastewater treatment facilities are permitted to discharge effluent via WDR from the LARWQCB.~~ The City of Ventura currently discharges to the Santa Clara River Estuary but is actively studying ways to increase recycled water use in a manner protective of the Santa Clara River Estuary (City of Ventura 2016b).

Groundwater

The Santa Clara River Valley Basin is the primary basin underlying the Ventura County portion of the Santa Clara River Watershed. This basin is subdivided into sub-basins: Piru (DWR Basin No. 4-004.06), Fillmore (DWR Basin No. 4-004.05), Santa Paula (DWR Basin No. 4-004.04), Mound (DWR Basin No. 4-004.03), and Oxnard (DWR Basin No. 4-004.02). All groundwater basins/subbasins in the Ventura County portion of the Santa Clara River, with the exception of the Santa Paula SubbBasin (which is adjudicated) are subject to SGMA. ~~As described earlier, in 2014, the California Department of Water Resources ranked California's groundwater basins as "high," "medium," "low," or "very low" priority. In this ranking process, the Oxnard and Piru groundwater subbasins were deemed "high"-priority and the Fillmore, Santa Paula, and Mound subbasins deemed "medium"-priority basins. The heavy great dependency on groundwater in these areas is was a primary factor in the ranking. The Oxnard basin was also listed as being in "critical overdraft."~~

~~Stakeholders have met to discuss forming the necessary groundwater sustainability agency for the Piru, Fillmore, and Mound basins. As of the preparation of this background report, no formal notification of groundwater sustainability agency formation has been filed with the Department of Water Resources for those basins.~~

The ~~Fox Canyon~~ GMA ~~is selected to be the GSA groundwater sustainability agency~~ under SGMA for the basins within its ~~Fox Canyon GMA~~ boundaries ~~which includes~~ the Oxnard Subbasin.

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Important Recharge Areas

~~The Oxnard Forebay was described above.~~

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Imported Supplies

In 1964, the Ventura County Flood Control District (~~currently the Ventura County Watershed Protection District VCWPD~~) contracted with the ~~DWR State of California Department of Water Resources~~ for a SWP allocation of 20,000 ~~-AF~~. ~~Currently~~, the City of Ventura has an allocation of 10,000 ~~-AF~~, Casitas Municipal Water District has an allocation of 5,000 ~~-AF~~, and UWCD has an allocation of 5,000 ~~-AF~~. Port Hueneme Water Agency uses 1,850 ~~-AF~~ of UWCD's entitlement ~~and but~~ receives the water through Calleguas Municipal Water District. ~~The SWP contract expires in 2035 but negotiations are underway to extend the contract.~~ Up to 3,150 ~~-AF~~ of SWP water is permitted to be released from Pyramid Lake and sent to Lake Piru.

From 1991 to 2013 the total SWP delivery has been 34,212 AF and SWP has not been purchased or delivered in every year (Ventura County Watershed Protection District 2015b). The amount of SWP water allocated in each year depends on availability; and delivery is only allowed from November 1

Water Resources

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through the end of February (Ventura County Watershed Protection District 2015b). In addition, UWCD has periodically entered into annual agreements with Casitas Municipal Water District and the City of

Ventura to purchase a portion of their unused SWP allocation. According to UWCD “The purchase of SWP water will be considered by United annually on an as-need basis” (UWCD 2016).

In addition to the SWP supplies delivered to Lake Piru Reservoir, the City of Oxnard purchases imported water from Calleguas Municipal Water District. During the period from 1991-2013 direct deliveries of SWP water to the Oxnard area were 316,000 AF – nearly 10 times the amount of water delivered to Lake Piru. These supplies are ~~in turn~~ provided to the Channel Islands Beach Community Services District, the City of Port Hueneme, and Naval Base Ventura County, via the Port Hueneme Water Agency.

~~At this time~~ the City of Ventura does not have the ~~infrastructure facilities~~ needed to deliver SWP water into its distribution system. ~~However,~~ Ventura is ~~currently~~ working with Calleguas Municipal Water District and others on a potential ~~plans~~ ~~reject~~ to bring SWP allocation to the City’s system.

Other Supplies

Several water agencies in the Santa Clara River Watershed produce and deliver recycled water, including ~~the following:~~

- ~~• The City of Fillmore,~~
- ~~• City of Oxnard, and~~
- ~~▪ City of Ventura~~

Water Quality

The ~~e Los Angeles LA~~ RWQCB has identified beneficial uses for the Santa Clara River Watershed as detailed in ~~Table 10-9~~. Permit programs and TMDLs have been developed to protect these beneficial uses. The following TMDLs are in place for portions of the Santa Clara Watershed:

- ~~▪ Bacteria in the Santa Clara River Estuary and Reaches 3 (area between Fillmore and Saticoy), 5 (Los Angeles County and eastern 4,500 feet of Santa Clara River within Ventura County), 6 (Los Angeles County), and 7 (Los Angeles County) – TMDL effective March 21, 2012~~
- ~~▪ Chloride in the Santa Clara River Reach 3 (area between Fillmore and Saticoy) – TMDL effective June 18, 2003~~
- ~~▪ Chloride in the Upper Santa Clara River (only a small portion lies within the county) – TMDL effective April 28, 2015~~

In addition to the existing TMDLs, other TMDLs may be developed as several Santa Clara Watershed areas are included in California’s 303(d) List. Identified impairments in the Santa Clara River and its tributaries include chloride, pH, boron, sulfates, total dissolved solids, toxicity, as well as multiple chemicals generally referred to as “Chem A”. The McGrath Beach area is ~~considered to be~~ impaired by coliform bacteria and toxic sediments.

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**TABLE 10-9
DESIGNATED BENEFICIAL USES IN THE SANTA CLARA RIVER WATERSHED**

| WATERSHED ^a | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | MIGR | SPWN | SHELL | WET ^b | |
|--------------------------------------------------------------------------------|-----|-----|------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|------------------|---|
| SANTA CLARA RIVER WATERSHED | | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River Estuary (Ends at Harbor Blvd.) ^c | | | | | | | E | | E | | | | | | E | E | E | | Ee | Ef | Ef | | E |
| Santa Clara River Reach 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (Estuary to Highway 101 bridge) | P* | E | E | E | E | E | | | | | E | E | | | | | E | | E | E | | | E |
| Santa Clara River Reach 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (Highway 101 bridge to Ellsworth Barranca) | P* | E | E | E | E | E | | | | | E | E | | | | E | | E | E | | | | E |
| Santa Clara River (Ellsworth Barranca to Freeman Diversion) | P* | E | E | E | E | E | | | | | E | E | | | | E | | E | E | | | | E |
| Santa Clara River Reach 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (Freeman Diversion Dam to Santa Paula Creek) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | E | | | | E |
| Santa Clara River (Santa Paula Creek to Sespe Creek) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | E | | | | E |
| Santa Clara River (Sespe Creek to A Street, Fillmore) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | E | | | | E |
| Santa Clara River Reach 4A | | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (A Street Fillmore to Piru Creek) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | E | | | | E |
| Santa Clara River Reach 4B | | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (Piru Creek to Blue Cut gaging station) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | E | | | | E |
| Santa Clara River Reach 5 | | | | | | | | | | | | | | | | | | | | | | | |
| Santa Clara River (Blue Cut gaging station to West Pier Highway 99) | P* | E | E | E | E | E | | | | | E | | | | | E | | E | | | | | E |
| Santa Clara River Reach 9 | | | | | | | | | | | | | | | | | | | | | | | |
| Santa Paula Creek (above Santa Paula Water Works Diversion Dam) | P* | E | E | E | E | E | | | | | E | E | | | | E | | E | E | E | | | |
| Santa Clara River Reach 10 | | | | | | | | | | | | | | | | | | | | | | | |
| Sespe Creek (gaging stn below Little Sespe Creek to Potrero John Creek) | P | E | P | E | E | | | | | | E | E | | | | E | E | Eg | E | E | | | E |
| Santa Clara River Reach 11 | | | | | | | | | | | | | | | | | | | | | | | |
| Piru Creek (gaging stn below Santa Felicia Dam to Agua Blanca Creek) | P | E | E | E | E | E | | | | | E | E | | | | E | | Eg | | | | | |
| Santa Paula Creek (Santa Clara River R4A to Santa Paula Water Works Diversion) | P | E | E | E | E | E | | | | | E | E | | | | E | | E | E | E | | | |
| Sisar Creek | P | E | P | E | E | | | | | | E | E | | | | E | | Eg | | E | | | E |

**TABLE 10-9
DESIGNATED BENEFICIAL USES IN THE SANTA CLARA RIVER WATERSHED**

| | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | MIGR | SPWN | SHELL | WET |
|-------------------------------------------------------------------------|-----|-----|------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|-----|
| SANTA CLARA RIVER WATERSHED | | | | | | | | | | | | | | | | | | | | | | |
| Sespe Creek (Santa Clara River R3 to gaging station below Little Sespe) | P | E | E | E | E | | | | | | E | E | | | | E | E | E | E | E | | E |
| Timber Creek | P* | | | | E | | | | | | E | E | | | | E | E | E | E | E | | E |
| Bear Canyon | P* | | | | E | | | | | | E | P | | | | E | E | E | E | E | | E |
| Trout Creek | P* | | | | E | | | | | | E | E | | | | E | | E | E | E | | E |
| Piedra Blanca Creek | P* | | | | E | | | | | | E | E | | | | E | | E | E | E | | E |
| Lion Canyon | P* | | | | E | | | | | | E | E | | | | E | | E | E | E | | E |
| Rose Valley Creek | P* | | | | E | | | | | | E | E | | | | E | | E | E | E | | E |
| Howard Creek | P* | | | | E | | | | | | E | E | | | | E | E | E | E | E | | E |
| Tule Creek | P* | | | | E | | | | | | | P | | | | E | E | E | E | E | | E |
| Potrero John Creek | P* | | | | E | | | | | | | P | | | | E | E | E | E | E | | E |
| Hopper Creek | P* | E | | E | E | E | | | | | E | E | | | | E | | Eg | | | | E |
| Piru Creek (Santa Clara River R4A to Santa Paula Water Works Diversion) | P | E | E | E | E | E | | | | | E | E | | | | E | | Eg | E | E | | E |
| Lake Piru | P | E | E | E | E | P | | | | | E | E | | | | E | | E | E | E | | E |

E: Existing beneficial use
 P: Potential beneficial use
 I: Intermittent beneficial use
 E, P, and I: shall be protected as required
 * Asterisked MUN designations are designated under SB 88-63 and RB 89-03. Some destinations may be considered for exemption at a later date.

a: Waterbodies are listed multiple times if they cross hydrologic area or subarea boundaries. Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.
 b: Waterbodies designated as WET may have wetlands habitat associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.
 g: Condor refuge.
 j: Out of service.

Source: Table 2-1. Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties (electronic copy accessed December 27, 2016).

Available Supplies

The sources of water supply in the Santa Clara River Watershed include surface water, imported water, groundwater, and recycled water. A total estimate of supply in the Santa Clara Watershed is provided in Table 10-11.

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Surface Water

UWCD collects and releases surface water at Santa Felicia Dam/Lake Piru. The purpose of this water and subsequent releases from the dam are to replenish the Piru, Fillmore, and Santa Paula Subbasins, and to provide flows to benefit facilities receiving water from the Freeman Diversion. Releases since 1999 averaged 28,369 AFY with an annual minimum of zero and a maximum of 47,400 AF, dependent on rainfall that year seasonal conditions and environmental bypass flow requirements (UWCD 2014). UWCD estimates that approximately ten percent of the water released from Santa Felicia Dam is delivered to agricultural users in the Calleguas Creek Watershed via the Pumping Trough Pipeline (PTP) and Pleasant Valley Pipeline. UWCD also has a right to divert Santa Clara River flows at the Freeman Diversion. In recent years UCWD has diverted between 2,500 AF (in 2015) and 94,000 AF (in 2011) at this location (UWCD 2017b). Water diverted in this location is used for both artificial recharge – the primary source of recharge to the Oxnard coastal plain – and direct delivery to agricultural users. To avoid over counting supplies, surface water used for recharge is not counted as a supply in this report.

It is estimated that private landowners may divert as much as 880 AFY from the Santa Clara River, but records are not available to confirm the long-term Santa Clara River surface water supply available to private users (SWRCB eWRIMS database).

Imported Water

Since 1991, UWCD has received from 0 up to 4,047 AF of imported SWP water in any given year with an average of 1,487 AFY.

DWR prepares a biennial report to assist SWP users and local planners in assessing the near- and long-term availability of supplies from the SWP. DWR issued its most recent update, the 2017 DWR State Water Project Delivery Capability Report (DCR), in March July 2018. In the 2017 update, DWR provides SWP supply estimates for SWP contractors to use in their planning efforts. The 2015 DCR includes DWR’s estimates of SWP water supply availability under both current and future conditions. The DCR estimates that UWCD on average, will receive between 45 and 70 percent of its allocation, depending on implementation of California Water Fix (SWP Delivery Capability Report, Existing Conditions January 2018, Table D.31 and Alternative 4 H3 Scenario Table F.31).

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The imported water acquired by UWCD is intermingled with surface water at Lake Piru and released for groundwater recharge. It is not possible to track UWCD’s imported water separate from surface water, any discussion on Direct surface water deliveries and groundwater recharge by UWCD may include a small component of SWP water.

Besides UCWD, the City of Oxnard receives imported water within the Santa Clara River Watershed. The City of Oxnard receives imported water from Calleguas Municipal Water District (Calleguas), who is a member agency of the Metropolitan Water District of Southern California (MWD), a wholesale supplier of State Water Project water. In 2018 the City of Oxnard purchased 45% 42,187 of total supply AF from Calleguas and, in the

Background Report

County of Ventura

~~future (2020-2040) the City anticipates receiving 11,826 AF (47% of imported water from Calleguas in 2020 (Oxnard 2016).~~

Groundwater

~~Estimating groundwater supply is a difficult and time-consuming process and must take into account not only basin configuration, underflow, and weather, but other management practices such as volume of applied water and recharge operations. There is not an accepted long-term yield for groundwater in the Santa Clara Watershed. As part of the SGMA process stakeholders will evaluate long-term sustainable yield. Table 10-10 presents a high-level estimate of available supply groundwater based on available data. The difference in the high and low supply estimate documents the lack of data or consensus on groundwater supply.~~

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| TABLE 10-10 GROUNDWATER SUPPLY ESTIMATES SANTA CLARA RIVER WATERSHED | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------|-------|
| Basin | Estimate of Groundwater Budget (AFY) | Past Groundwater Extractions (AFY) | Notes |
| Piru | 9,050 | 12,403 | 1, 2 |
| Fillmore | 22,625 | 44,598 | 3, 4 |
| Santa Paula | 26,000 | 25,699 | 5, 6 |
| Oxnard Subbasin | 71,000 | 78,000 | 7, 8 |
| Mound | 8,000 | 10,000 | 9, 10 |
| <i>Low Estimate Groundwater Supply Santa Clara River Watershed</i> | | 136,400 | 11 |
| <i>High Estimate Groundwater Supply Santa Clara River Watershed</i> | | 171,000 | 11 |
| Notes: 1. DWR 2003, Basin 4-4.06. Assumes low estimate of 5,900 AFY outflow to Fillmore Basin. 2. UWCD 2016. 2014 and 2015 Piru and Fillmore Basins AB 3030 Biennial Groundwater Conditions Report. Average annual extractions 1980-2015. 3. DWR 2003, Basin 4-4.05. Assumes low estimate of 2,400 AFY outflow to Santa Paula Basin. 4. UWCD 2016. 2014 and 2015 Piru and Fillmore Basins AB 3030 Biennial Groundwater Conditions Report. Average annual extractions 1980-2015. 5. Information from the Santa Paula Basins Expert Group estimates annual yield at no less than 26,000 AFY (UWCD 2015). DWR 2003, Basin 4-4.04 budget is 5,593 AFY. Data from the Santa Paula Basins Expert Group is shown in the table. 6. UWCD 2015. 2012 Santa Paula Basin Annual Report. Average annual extractions 1980-2012. 7. USGS 2003. 8. UWCD 2017b. 9. Fugro West, Inc. 1997. Mound Groundwater Basin Annual Report. June. 10. City of Ventura 2011. City of San Buenaventura Water Master Plan and personnel communication D. Detmer of United Water Conservation District. 11. Rounded to the nearest 100 AF | | | |

Recycled Water

Ventura County Waterworks District No. 16 (VCWWD 16) plans to construct a tertiary treatment upgrade for the existing Piru Wastewater Treatment Plant to mitigate high chloride and comply with LARWQCB WDRs. After tertiary treatment, effluent from the Piru Wastewater Treatment Plant will meet California Code of Regulations, Title 22 requirements for unrestricted recycled

~~Water.~~ ~~And~~ approximately 500 AFY will be available for use as a new, lower cost irrigation supply for up to 1 square mile (640 acres) of nearby agricultural property. This supply is anticipated ~~in before~~ ~~year~~ 2020. In the meantime, treated effluent is discharged to percolation basins.

The City of Fillmore completed a recycled water plant in 2009 and distributes approximately 2,000 AFY of reclaimed water to parks and school fields and ~~for~~ groundwater percolation ~~basins~~ (Hydrometrics 2015, Fillmore 2016).

The City of Santa Paula utilizes its recycled water for groundwater recharge. To avoid over counting, Santa Paula's recycled water supply is categorized as a groundwater supply.

The City of Oxnard has been pursuing a recycled water program for more than 10 years. The City has constructed an Advanced Water Purification Facility (AWPF) as well as extensive transmission pipelines for the recycled water system. As of 2015 the AWPF has the capacity to produce 7,000 AFY ~~and; but in 2015~~ delivered only 605 AF ~~in 2015~~. The City is actively pursuing users for its recycled water including landscape irrigation of parks, schools, golf courses and residential common areas. The City has entered into an agreement with agricultural users in the Oxnard Plain to provide recycled water ~~when available~~. ~~The pipeline to serve the Oxnard Plain is planned for completion in the future.~~ Oxnard anticipates putting between 7,000 up to 14,000 AFY of recycled water to beneficial use ~~starting in 2020 in the next 10 years~~.

The City of Ventura has access to recycled water supply through the Ventura Water Reclamation Facility. ~~The Currently, the Ventura Water~~ Reclamation Facility discharges most of its tertiary treated effluent to the Santa Clara River Estuary with approximately 700 AFY diverted as recycled water for landscape irrigation by several users along the City's recycled water pipeline alignment. In the next ten years the City of Ventura intends to increase the amount of recycled water delivered to irrigation customers and is examining direct potable use of recycled water. The City of Ventura service area includes ~~areas portions~~ in both the Ventura and Santa Clara watersheds, but the recycled water supply is being accounted for in the Santa Clara watershed.

| TABLE 10-11 CURRENT (2016) ESTIMATE OF SUPPLY SANTA CLARA RIVER WATERSHED | |
|---------------------------------------------------------------------------------|--------------------|
| Supply Source | Annual Volume (AF) |
| Surface Water, Santa Clara River ¹ | 0 |
| Imported Water, City of Oxnard from Calleguas ¹ | 12,000 |
| Recycled Water | 10,200 to 19,700 |
| Groundwater (see Table 10-10) | 136,400 to 171,000 |
| Low Estimate (rounded to nearest 100 AF) | 158,400 |
| High Estimate (rounded to nearest 100 AF) | 202,700 |

1. UWCD directly delivers approximately 12,000 AFY to agricultural users in the Calleguas Creek Watershed. This water is diverted in the Santa Clara Watershed but is a supply in the Calleguas Creek Watershed.

Water Suppliers

There are six major water suppliers (entities serving more than 1000 persons) in the Ventura County portion of the Santa Clara River Watershed as well as 74 smaller water systems and irrigation companies. Persons or businesses in the Watershed are also supplied by private wells and surface water diversions. The major urban suppliers, documented in **Table 10-12** provide water to the cities but also to the unincorporated County. These are also mapped in **Figure 10-4**.

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**TABLE 10-12
MAJOR WATER SUPPLIERS
SANTA CLARA RIVER WATERSHED**

| Supplier/Primary Source(s) | Type | Area Served | Estimated Population Served | Annual Water Supplied* |
|----------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------|
| Castaic Lake Water Agency Imported water and local groundwater | Special District | The Castaic Lake Water Agency service area extends into Ventura County but at the current time Castaic Lake Water Agency does not supply any water to Ventura County. | NA | NA |
| City of Fillmore Groundwater | City | City of Fillmore north of Santa Clara River, east of Sespe Creek. | 18,600 | ~ 3,400 AF |
| City of Oxnard Imported water, groundwater, recycled water | City | City of Oxnard and County unincorporated area along Hueneme Road to Naval Base Ventura County. Excludes Channel Islands Beach. | 193,654 | ~28,600 AF |
| City of Santa Paula Groundwater | City | Approximately 4.5 square miles (~2,880 acres) within the City of Santa Paula. | 29,000 | ~4,400 AF |
| United Water Conservation District Surface water, imported water, groundwater | Special District | 333 square miles (~ 213,120 acres) in Santa Clara River Valley (portion within Ventura County) and the Oxnard Plain. | ** | ** |
| Ventura Water Lake Casitas water, Ventura River, groundwater (Oxnard Plain, Mound, Santa Paula Basins), recycled water | City | City of Ventura and 1.5 square miles (960 acres) within City's sphere of influence. City falls within both the Ventura and Santa Clara Watersheds. | *** | *** |

*Estimated based on records of water supplied 2010 to 2015, rounded to nearest 100 AF. Does not account for planned future expansion of demands and supplies.

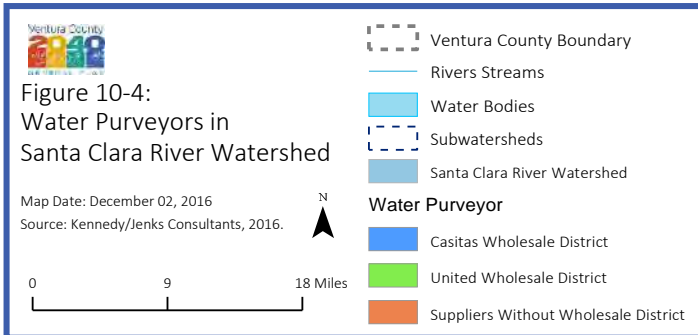
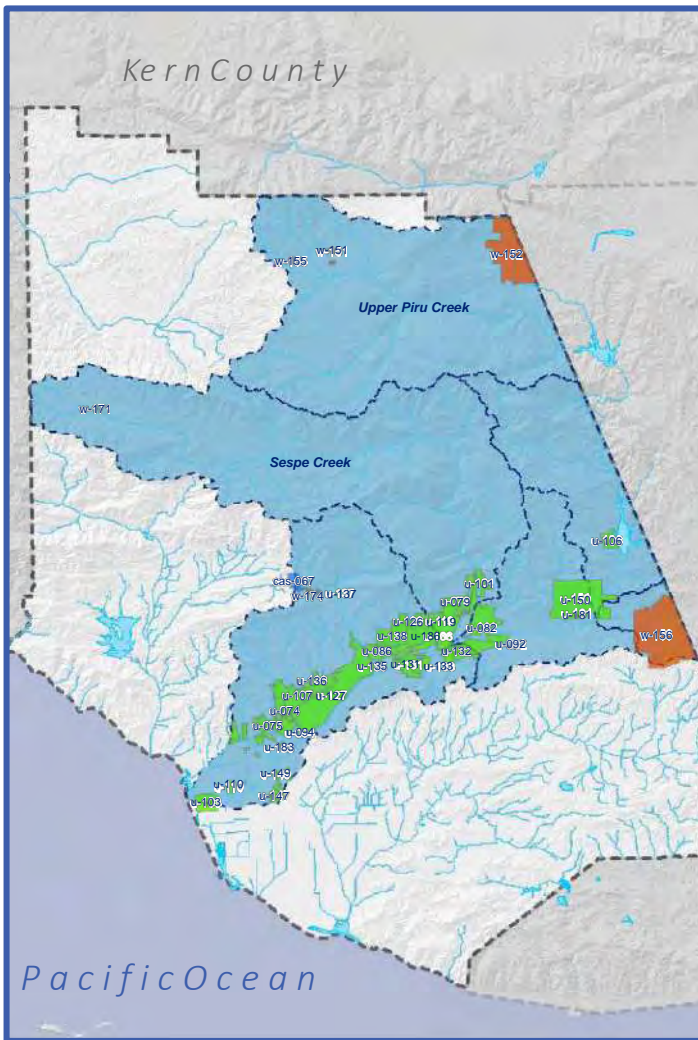
**United Water Conservation District provides groundwater recharge and water to retail water agencies, to avoid double counting, information is only listed for retail water agencies.

*** City of Ventura information is described under Ventura River Watershed, to avoid double counting no population or water supply is provided in this table.

Source: UWCD 2016, City of Ventura 2016a and 2016b, City of Fillmore 2005 and 2016, City of Oxnard 2016, City of Santa Paula 2011.

WATER PURVEYORS

| UNITED WHOLESALE DISTRICT | |
|--------------------------------------|----------------------------------------------|
| SUPPLIER | WATER COMPANY |
| United (u-074) | Aliso MWC |
| United (u-075) | Alta MWC |
| United (u-076) | Beedy Street Well |
| United (u-079) | Brownstone MWC |
| United (u-082) | City of Fillmore |
| United (u-082) | City of Fillmore |
| United (u-084) | Cloverdale MWC |
| United (u-086) | Community MWC |
| United (u-091) | El Rio Processing |
| United (u-092) | Elkins Ranch Company |
| United (u-094) | Farmers Irrigation Company |
| United (u-095) | Fillmore Irrigation Company |
| United (u-096) | Fillmore West Mobile Home Park |
| United (u-101) | Goodenough MWC |
| United (u-103) | Coastal Berry |
| United (u-104) | Alger Family Trust |
| United (u-106) | Lake Piru Recreation Area |
| United (u-107) | Limoneira Associates |
| United (u-108) | Linda Vista Junior Academy |
| United (u-109) | Middle Road MWC |
| United (u-110) | Montalvo MWC |
| United (u-119) | Rancho Sespe |
| United (u-122) | Rio Plaza Water Company |
| United (u-123) | Rio Real/Rio del Valle Schools |
| United (u-126) | San Cayetano MWC |
| United (u-127) | City of Santa Paula |
| United (u-129) | Sherwin Acres MWC |
| United (u-131) | South Mountain MWC |
| United (u-132) | Southside Improvement Company |
| United (u-133) | Storke MWC |
| United (u-134) | Strickland MWC |
| United (u-135) | Teague-McKevett Company-Limoneira |
| United (u-136) | Thermal Belt MWC |
| United (u-137) | Thomas Aquinas College |
| United (u-138) | Timber Canyon MWC |
| United (u-139) | Tobock Ranch MWC |
| United (u-145) | G.P. Resources |
| United (u-147) | Vineyard Ave Acres MWC |
| United (u-148) | Vineyard Ave Estates |
| United (u-149) | Vineyard MWC |
| United (u-150) | Warring Water Service |
| United (u-181) | Piru MWC |
| United (u-183) | Ventura County Property Administrator |
| United (u-185) | Hardscrabble MWC |
| United (u-186) | Sespe Agricultural Water |
| United (u-192) | Citrus MWC |
| United (u-202) | Rancho Sespe Workers Improvement Association |
| United (u-203) | Toland Road Water System |
| CALLEGUAS WHOLESALE DISTRICT | |
| SUPPLIER | WATER COMPANY |
| Casitas (cas-067) | Silar MWC |
| SUPPLIERS WITHOUT WHOLESALE DISTRICT | |
| SUPPLIER | WATER COMPANY |
| None (w-151) | Greeleaf Springs Water System |
| None (w-152) | Antelope Valley East Kern Water Agency |
| None (w-152) | East Kern Water Agency |
| None (w-155) | Camp Three Falls |
| None (w-156) | Castaic Lake Water Agency |
| None (w-168) | New Camp Barlett |
| None (w-171) | Pine Mountain Inn |
| CASITAS WHOLESALE DISTRICT | |
| SUPPLIER | WATER COMPANY |
| None (w-174) | Sweetwater Spring Ranch |



Section 10.4: Existing Conditions
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Estimate of Demand

~~As described previously, in 2014, the VCWP Ventura County Watershed Protection District~~ undertook an estimate of Countywide water demand, documented in the County of Ventura 2013 Water Supply and Demand (January 2015). Results of the study for the Santa Clara Watershed are provided ~~Table 10~~.

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| Watershed/Sub-watershed | Total Agricultural Demand (AF) | Total Municipal Demand (AF) | Total Demand (AF) |
|---------------------------------------------|---------------------------------------|------------------------------------|--------------------------|
| Hall Canyon/Arundel | 815 | 9,924 | 10,739 |
| Ormond Beach | 2,797 | 22,913 | 25,710 |
| Santa Clara River | 114,919 | 31,284 | 146,203 |
| <i>Subtotal (Rounded to nearest 100 AF)</i> | <i>118,500</i> | <i>64,100</i> | 182,600 |

Source: Hydrometrics 2015. Table 6.

~~Notable in Table 10~~ is the distribution of demands. Agricultural demand is estimated to be significantly higher than municipal demand.

Demand Management

~~Table 10~~ summarizes the various water conservation ~~efforts~~ ~~actions undertaken~~ in the Santa Clara River Watershed. ~~It Table 10~~ summarizes demand management measures ~~undertaken~~ under normal conditions and ~~those extra ordinary additional~~ efforts taken during drought periods.

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Comparison of Supply and Demand

~~While it is difficult to quantify, it~~ is estimated that there is an annual supply of 158,400 AF to 202,700 AF in the Santa Clara Watershed. ~~This supply of course will vary given drought and operational conditions.~~ Estimated demand is approximately 182,600 AF and is outpacing the low-end estimate of annual supply. The high-end estimate of supplies assumes increased recycled water use, ~~the timing of which is uncertain. If the higher supply is achieved, supply could be a little less than 10 percent greater than demand.~~

Water-Related Challenges

Below are the water related challenges for the Santa Clara River Watershed as of late 2016:

**TABLE 10-14
DEMAND MANAGEMENT MEASURES IN SANTA CLARA RIVER WATERSHED**

| Agency | Conservation Measures in Effect at All Times | | | | | | | Conservation Measures that May Be Implemented in Drought | | | | |
|------------------------------------|----------------------------------------------|--------------------------|----------|----------------------|-----------------------------------------------|-----------------------------------------------|-------------------------|----------------------------------------------------------|--------------------------------------------|---------------------------------|-------|-------------------------------------|
| | Public Information and Outreach | Water Waste Prohibitions | Metering | Volume-Based Pricing | Water Efficiency Surveys Offered to Customers | Rebates for High Efficiency Plumbing Fixtures | Turf Removal Incentives | Drought Surcharge | Limitations on Irrigation/Outdoor Watering | Mandatory Reductions/Allocation | Fines | Suspension of new water connections |
| City of Fillmore | | X | X | X | | | | X | X | | | |
| City of Oxnard | X | X | X | X | | X | X | | X | X | X | X |
| City of Santa Paula | X | X | X | X | | | | | X | | | |
| Ventura Water | X | X | X | X | X | X | X | X | X | X | X | X |
| United Water Conservation District | X | | X | X | | | | | | X* | X | |

*UWCD's groundwater allocation is subject to the Fox Canyon GMA. In the event of reductions from FCGMA, UWCD informs their retail agencies of the reductions.
Sources: City of Oxnard 2016; City of Ventura 2016b; United Water Conservation District 2016.

Coastal Groundwater Overdraft

~~As described earlier,~~ groundwater ~~underlying~~ the Oxnard Plain dropped below sea level as early as the 1940s. Overdraft conditions now persist in the southern and eastern portions of the ~~Oxnard~~ Plain ~~and~~, the annual overdraft is estimated to be 20,000 to 25,000 AFY (UWCD 2017b). ~~The is~~ ~~continued~~ ~~o~~verdraft allows ~~for~~ seawater intrusion and puts the area at risk of land subsidence.

Sea Water Intrusion

~~The~~ Low water levels ~~underlying~~ the Oxnard Plain allow ~~for~~ seawater ~~(chloride) intrusion to enter~~ into freshwater aquifers. The USGS and UWCD have documented the inland movement of seawater adjacent to the Hueneme and Mugu submarine canyons.

Water for Environmental Purposes

UWCD diverts Santa Clara River water at the Freeman Diversion to recharge groundwater basins and for direct delivery to agricultural users. UWCD provides bypass flows at the Freeman Diversion for the upstream and downstream migration of ~~S~~southern California Steelhead. In July 2008, the National Marine Fisheries Service (NMFS) issued a final Biological Opinion (BO) that concluded ~~that~~ operations at the Freeman Diversion were likely to jeopardize the continued existence of ~~S~~southern California Steelhead in the Santa Clara River. UWCD is ~~currently~~ developing a multi-species habitat conservation plan and is in consultation with NMFS. The resulting bypass flows are unknown, but it is estimated that the current bypass flow regime has decreased diversions (and hence water supply) by up to 22,500 ~~AFY~~, though this is highly variable from year to year (personnel communication, Robert Richardson, United Water Conservation District).

Quality

~~The Los Angeles~~ RWQCB has identified the Santa Clara River, downstream of Piru Creek, as having water quality impairments related to bacteria. ~~The Los Angeles RWQCB has identified r~~unoff from residential, industrial, and commercial areas ~~is identified as~~ the source of ~~the~~ bacteria. This includes fertilizer used for lawns and landscaping, organic debris from gardens, landscaping, and parks; trash such as food wastes; domestic animal waste; and human waste from areas inhabited by the homeless. The indicator bacteria point to the potential contamination of the Santa Clara River by pathogens or disease producing bacteria or viruses. Some waterborne pathogenic diseases include ear infections, dysentery, typhoid fever, viral and bacterial gastroenteritis, and hepatitis A. Elevated bacteria levels are an indicator that a potential health risk exists for individuals exposed to this water and therefore limit the recreational uses of the Santa Clara River.

Calleguas Creek Watershed

The Calleguas Creek Watershed is located in the southeastern portion of Ventura County and drains an ~~area of~~ approximately 343 ~~square mile~~ (219,520 acres) ~~area~~. The Santa Susana and Oak Ridge Mountains form the northern boundary ~~and~~; the southern boundary is delineated by the Simi Hills and Santa Monica Mountains. Major creeks and rivers include the Conejo Creek, Arroyo Simi, Arroyo Las Posas, Arroyo Santa Rosa, Calleguas Creek, Revolon Slough; and Mugu Lagoon.

Long-term monitoring by the ~~VCWPD~~ ~~Ventura County Watershed Protection District~~ shows that the Calleguas Creek Watershed cycles through wet and dry periods and does not have a ~~common~~ “normal” ~~season period~~.

Precipitation is in the form of rain and about 85 percent of the rainfall occurs from November to March (Calleguas Creek Steering Committee 2004). Near the coast, cool moist ocean winds moderate temperature with a summer high average of 64°F and winter low average of 53 °F (Calleguas Creek Steering Committee 2004). Inland temperatures can exceed 106 °F in the summer and drop below freezing in the winter (Western Regional Climate Center Station 048904 Thousand Oaks 1 SW).

The watershed includes the cities of Oxnard (portion), Port Hueneme, Camarillo, Moorpark, Simi Valley, Thousand Oaks, and unincorporated areas of Ventura County. According to the ~~WCV Watersheds Coalition of Ventura County~~ (2014), land uses in the watershed are as follows:

- Undeveloped land 50%
- Agriculture 25%
- Urban uses 25%

Surface Water

The major surface water features in the watershed are Lake Bard, the Arroyo Simi/Arroyo Las Posas/Calleguas Creek system, Conejo Creek system, and Honda Barranca/Beardsley Wash/Revolon Slough system.

Lake Bard. Lake Bard is an approximately 10,500--AF surface water reservoir constructed to store treated water from the Metropolitan Water District of Southern California. This water is used to meet emergency demands. Lake Bard is operated by Calleguas Municipal Water District (Calleguas Municipal Water District 2016).

Arroyo Simi/Arroyo Las Posas/Calleguas Creek. This series of creeks drain precipitation and urban runoff from the Simi Valley, the eastern Las Posas Valley, much of Pleasant Valley, and the eastern portion of the Oxnard Plain. In addition to precipitation and urban runoff, the Arroyo Simi also carries discharges from a series of dewatering wells operated by the City of Simi Valley and as well as treated effluent from the Simi Valley Water Quality Control Plant. Under certain conditions the Ventura County Waterworks District #1 Moorpark Wastewater Treatment and the Camrosa Water District Water Reclamation Facility may discharge effluent into Calleguas Creek (Calleguas Creek Steering Committee 2004).

Conejo Creek System. The Arroyo Santa Rosa, Arroyo Conejo, and Conejo Creek make up this drainage system. The Santa Rosa Valley, a portion of Pleasant Valley, Tierra Rejada Valley and the City of Thousand Oaks are drained by this system. This system carries precipitation, agricultural runoff, and effluent from the Hill Canyon Wastewater Treatment Plant and Camarillo Sanitary District Wastewater Reclamation Plant.

The Honda Barranca/Beardsley Wash/Revolon Slough. The western portion of the Las Posas valley, a portion of Pleasant Valley and a portion of the Oxnard Plain are drained by the Honda Barranca/Beardsley Wash/Revolon Slough. The majority of flow comes primarily from agricultural and storm water drainage (Calleguas Creek Steering Committee 2004).

Groundwater

There are multiple groundwater basins within the Calleguas Creek Watershed. These include the, Pleasant Valley Basin (DWR Basin 004-06), Arroyo Santa Rosa (DWR Basin 004-07), Las Posas Valley

(DWR Basin 4-008), Simi Valley (DWR Basin 4-009), ~~Tapo/Gillibrand (a portion of DWR Basin 4-009), and Tierra Rejada (DWR Basin 4-015). Several smaller basins also exist in the watershed but provide only a minor amount of supply due to low production or poor water quality (less than 500 AFY each basin).~~ As part of SGMA, the Pleasant Valley and Las Posas groundwater basins were deemed “high” priority ~~and the Arroyo Santa Rosa Valley deemed a “medium” priority basin.~~ The great dependency on groundwater in this area was a primary factor in the ranking. The Pleasant Valley basin was also listed as being in “critical overdraft.”

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~~As described earlier,~~ The Fox Canyon C-GMA was created by state legislation in 1982 to manage local groundwater basins and resources in an ~~effort~~ manner to reduce overdraft of the Oxnard S~~ub~~basin and to stop seawater intrusion. ~~Besides the Oxnard subbasin, the Fox Canyon. The FCGMA has also~~ elected to be the ~~GSA groundwater sustainability agency~~ under SGMA for the Pleasant Valley and Las Posas Valley ~~B~~basins, ~~as well as the portion of the Arroyo Santa Rosa Basin within Fox Canyon GMA boundaries.~~

The Arroyo Santa Rosa Basin GSA, organized in 2016 under a Joint Powers Agreement between the Camrosa Water District and the County of Ventura, with participation from the City of Camarillo, has elected to become the ~~GSA groundwater sustainability agency~~ for the portion of the Arroyo Santa Rosa Groundwater Basin east of the Bailey Fault, outside of the ~~F~~Cox Canyon GMA jurisdiction.

Important Recharge Areas

Important recharge areas for the groundwater basins in the Calleguas Watershed include the Oxnard Forebay ~~area~~ of the Oxnard Plain ~~(described earlier)~~, Calleguas Creek, small tributary stream channels and drainages from the surrounding mountain fronts, and areas of bedrock outcrops (USGS 2003). In addition, Calleguas Municipal Water District conducts artificial recharge through injection of imported water in the East Las Posas Basin, as part of the Las Posas Aquifer Storage and Recovery (ASR) Project.

Imported Supplies

Calleguas Municipal Water District is a wholesale water provider for the Calleguas Creek Watershed and portions of the Santa Clara River Watershed on the Oxnard Plain. Calleguas distributes the water supplies to its 19 retail purveyors through 140 miles of pipeline operated and maintained by Calleguas. Calleguas is a member agency of the MWD. Calleguas anticipates receiving approximately 122,000 ~~-AF~~ imported water from MWD each year, ~~starting in 2020, but this will vary depending on climatic conditions, regulatory conditions and regional demands.~~ 86,971 ~~-AF~~ of imported water was supplied in 2015.

Other Supplies

~~Within the Calleguas Creek Watershed,~~ Camrosa Water District ~~produces and delivers recycled water~~ in conjunction with the City of Thousand Oaks, the City of Camarillo, Ventura County Waterworks District 8 (City of Simi Valley), Ventura County Waterworks District 1 (Moorpark), ~~produce and deliver recycled water.~~ In addition, recycled water produced by the Tapia Water Reclamation Facility in the Malibu Creek Watershed is delivered to users within the Conejo Valley.

Water Quality

The Los Angeles RWQCB has identified beneficial uses for the Calleguas Creek Watershed as well as its tributaries and industrial channels in the area as documented in **Table 10-15**. The following TMDLs are in place for portions of the Calleguas Creek Watershed:

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- Calleguas Creek, Its Tributaries and Mugu Lagoon Metals and Selenium – approval of TMDL by SWRCB and US EPA pending.
- Calleguas Creek Salts – TMDL effective December 2, 2008
- Revolon Slough and Beardsley Wash Trash – TMDL effective March 6, 2008
- Calleguas Creek Toxicity – TMDL effective March 24, 2006
- Calleguas Creek Organochlorine Pesticides and PCBs - TMDL effective March 24, 2006
- Oxnard Drain 3 Pesticides, PCBs, and Sediment Toxicity – approved by EPA approval October 6, 2011
- Calleguas Creek Nitrogen Compounds and Related Effects – TMDL effective October 15, 2009

In addition to the existing TMDLs, other TMDLs may be developed. Identified impairments in the Calleguas Creek and its tributaries include ammonia, boron, copper, bacteria, nitrogen, nitrate, selenium, and sulfate, as well as insecticides and pesticides such as DDT, Dieldrin, and Toxaphene. The Channel Islands Harbor area is limited by lead and zinc in sediments and several Oxnard area beaches are limited by bacteria.

Available Supplies

The water supplies for the Calleguas Creek Watershed consist of imported water from Calleguas, groundwater, a minor amount of potable surface water, non-potable surface water provided by UWCD from the Freeman Diversion delivered to agricultural users in the Pleasant Valley Basin, and recycled water. A total estimate of supply in the Calleguas Creek Watershed is provided in **Table 10-17**.

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Imported Water

Calleguas anticipates receiving approximately 122,000 AF imported water from MWD in each year starting in 2020, but this will vary depending on climatic conditions, regulatory conditions and regional demands (CMWD 2016). The City of Oxnard receives approximately 12,000 AFY of water from Calleguas but; this volume is included in the imported supplies in the Santa Clara Watershed and is not reflected in supplies for the Calleguas Creek Watershed.

**TABLE 10-15
DESIGNATED BENEFICIAL USES CALLEGUAS CREEK WATERSHED**

| WATERSHED ^a | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | MIGR | SPWN | SHELL | WET ^b |
|---------------------------------------------------------------|-----|-----|------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|------------------|
| CALLEGUAS-CONEJOCREEK WATERSHED | | | | | | | | | | | | | | | | | | | | | | |
| Calleguas Creek Estuary ^c | | | | | | | P | | E | | | | | E | | E | | Ee,p | Ef | Ef | | E |
| Calleguas Creek Reach 1 | | | | | | | | | | | | | | | | | | | | | | |
| Mugu Lagoon ^c | | | | | | | E | | Ed | | | | | E | E | Eo | E | Ee,p | Ef | Ef | Ed | E |
| Calleguas Creek Reach 2 | | | | | | | | | | | | | | | | | | | | | | |
| Calleguas Creek (Estuary to Potrero Rd.) | P* | | | E | E | E | | | | | E | E | | | | E | | Ep | | | | E |
| Calleguas Creek Reach 3 | | | | | | | | | | | | | | | | | | | | | | |
| Calleguas Creek (Potrero Rd. to Conejo Creek) | P* | E | E | E | E | | | | | | E | | | | | E | | | | | | |
| Calleguas Creek Reach 4 | | | | | | | | | | | | | | | | | | | | | | |
| Revolon Slough (Calleguas Creek Rch 2 to Pleasant Valley Rd.) | P* | P | | E | E | | | | | | E | | | | | E | | | | | | E |
| Revolon Slough (Pleasant Valley Rd. to Central Ave.) | P* | P | | E | E | | | | | | E | | | | | E | | | | | | E |
| Calleguas Creek Reach 5 | | | | | | | | | | | | | | | | | | | | | | |
| Beardsley Channel (above Central Ave.) | P* | | | | | E | | | | | E | | | | | E | | | | | | |
| Calleguas Creek Reach 6 | | | | | | | | | | | | | | | | | | | | | | |
| Arroyo Las Posas (Calleguas Creek Rch 3 to Long Canyon) | P* | P | P | P | E | | | | | | E | P | | | | E | | | | | | |
| Arroyo Las Posas (Long Canyon to Hitch Rd.) | P* | P | P | P | E | E | | | | | E | P | | | | E | | | | | | |
| Calleguas Creek Reach 7 | | | | | | | | | | | | | | | | | | | | | | |
| Arroyo Simi (Hitch Rd. to Happy Camp Canyon) | P* | I | | | I | I | | | | | I | | | | | E | | E | | | | |
| Arroyo Simi (Happy Camp Canyon to Alamos Canyon) | P* | I | | | I | I | | | | | I | | | | | E | | E | | | | |
| Arroyo Simi (Alamos Canyon to Tapo Canyon Creek) | I* | I | | | I | I | | | | | I | | | | | E | | | | | | |
| Arroyo Simi (above Tapo Canyon Creek) | I* | I | | | I | I | | | | | I | | | | | E | | | | | | |
| Calleguas Creek Reach 8 | | | | | | | | | | | | | | | | | | | | | | |
| Tapo Canyon Creek (above Arroyo Simi) | I* | | P | P | I | | | | | | I | | | | | E | | | | | | |
| Calleguas Creek Reach 9A | | | | | | | | | | | | | | | | | | | | | | |
| Conejo Creek (Camrosa Diversion to Camarillo Rd.) | P* | E | E | E | E | | | | | | E | | | | | E | | | | | | |
| Conejo Creek (Camarillo Rd. to Arroyo Santa Rosa) | P* | | | | I | I | | | | | I | | | | | E | | | | E | | |

Water Resources

2040 General Plan

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**TABLE 10-15
DESIGNATED BENEFICIAL USES CALLEGUAS CREEK WATERSHED**

| WATERSHED ^a | MUN | IND | PROC | AGR | GWR | FRSH | NAV | POW | COMM | AQUA | WARM | COLD | SAL | EST | MAR | WILD | BIOL | RARE | MIGR | SPWN | SHELL | WET ^b | |
|----------------------------------------------------------------|-----|-----|-------|-----|-----|------|-----|-----|------|------|------|------|-----|-----|-----|------|------|------|------|------|-------|------------------|--|
| CALLEGUAS-CONEJOCREEK WATERSHED | | | | | | | | | | | | | | | | | | | | | | | |
| Calleguas Creek Reach 9B | | | | | | | | | | | | | | | | | | | | | | | |
| Conejo Creek (Calleguas Creek Rch 3 to Camrosa Diversion) | P* | E | E | E | E | | | | | | E | | | | | E | | | | | | | |
| Calleguas Creek Reach 10 | | | | | | | | | | | | | | | | | | | | | | | |
| Arroyo Conejo (Conejo Creek to North Fork Arroyo Conejo) | P* | | | | I | I | | | | | I | | | | | E | | E | | | | | |
| Calleguas Creek Reach 11 (Arroyo Santa Rosa) | | | | | | | | | | | | | | | | | | | | | | | |
| Arroyo Santa Rosa (above confl. with Conejo Creek) | P* | | | | I | I | | | | | I | | | | | E | | | | | | | |
| Calleguas Creek Reach 12 | | | | | | | | | | | | | | | | | | | | | | | |
| North Fork Arroyo Conejo (above confl. with Arroyo Conejo) | P* | | | E | E | | | | | | E | | | | | E | | | | | E | | |
| Calleguas Creek Reach 13 | | | | | | | | | | | | | | | | | | | | | | | |
| Arroyo Conejo (above confl. with North Fork Arroyo Conejo) | P* | | | | I | I | | | | | I | | | | | E | | | | | | | |
| Gillibrand Canyon Creek (Tapo Canyon Creek to Windmill Canyon) | P* | | | | I | I | | | | | I | | | | | E | | | | | | | |
| Gillibrand Canyon Creek (above Windmill Canyon) | P* | | | | I | | | | | | I | | | | | E | | | | | | | |
| Lake Bard (Wood Ranch Reservoir) | E | E | E | E | P | | | | | | E | | | | | E | | | | | | | |

E: Existing beneficial use

P: Potential beneficial use

I: Intermittent beneficial use

E, P, and I: shall be protected as required

* Asterisked MUN designations are designated under SB 88-63 and RB 89-03. Some destinations may be considered for exemption at a later date.

a: Waterbodies are listed multiple times if they cross hydrologic area or subarea boundaries. Beneficial use designations apply to all tributaries to the indicated waterbody, if not listed separately.

b: Waterbodies designated as WET may have wetlands habitat associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.

c: Coastal waterbodies which are also listed in inland Surface Waters Tables (2-1) or in Wetlands Table (2-4).

d: Limited public access precludes full utilization.

e: One or more rare species utilizes all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

f: Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.

o: Marine habitats of the Channel Islands and Mugu Lagoon serve as pinniped haul-out areas for one or more species (i.e. sea lions).

p: Habitat of the Clapper Rail.

Source: Table 2-1. Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties (electronic copy accessed December 27, 2016).

Groundwater

There is not an accepted groundwater supply estimate for the Calleguas Creek Watershed. As part of the SGMA process stakeholders will evaluate long-term sustainable yield. Table 10-16 presents a high-level estimate of available groundwater based on available data. The difference in the high and low supply estimate documents the lack of data and consensus on groundwater supply. Table 10- does not include the approximately 3,500 AFY of groundwater that the City of Thousand Oaks is planning on developing from the Conejo Groundwater Basin.

Surface Water

The Conejo Creek system, owned and operated by Camrosa Water District, does supply some surface water. The average supply from this creek system is estimated to be 7,920--AF (FCGMA 2016). It is estimated that small private water users may divert and use as much as 3,400--AFY from local surface water (SWRCB eWRIMS database).

**TABLE 10-16
GROUNDWATER SUPPLY ESTIMATES
CALLEGUAS CREEK WATERSHED**

| Basin | Estimate of Groundwater Budget (AFY) | Past Groundwater Extractions (AFY) | Notes |
|------------------------------------|--------------------------------------|------------------------------------|-------|
| Pleasant Valley Basin | 11,418 | 18,500 | 1 |
| Arroyo Santa Rosa | 3,325 to 8,410 | 5,000 | 2 |
| Las Posas Valley | 29,280 | 30,560 | 3 |
| Simi Valley | 5,400 | 5,500 | 4 |
| Tapo/Gillibrand | 1,350 | 550 | 5, 6 |
| Tierra Rejada | 1,300 | 1,500 | 7 |
| Low Estimate Groundwater Supplies | | 51,300 | 8 |
| High Estimate Groundwater Supplies | | 82,300 | 8 |

1. DWR 2003, Basin 4-006.
2. DWR 2003, Basin 4-007.
3. DWR 2003, Basin 4-008.
4. DWR 2003, Basin 4-009.
5. City of Simi Valley, Geohydrologic Evaluation of Maximum Perennial Yield, Tapo Canyon Tributary SubArea (September 2006)
6. Waterworks District 8. 2016. 2015 Urban Water Management Plan. June.
7. DWR 2003, Basin 4-015.
8. Rounded to nearest 100 AF.

Recycled Water

Based on recently completed urban water management plans by water purveyors in the Calleguas Creek Watershed, an estimate of recycled water in the Calleguas Creek area has been prepared. This estimate uses supplies planned incorporates usage for the next 10 years (by 2025).

| TABLE 10-17 CURRENT (2016) ESTIMATE OF SUPPLY CALLEGUAS CREEK WATERSHED | |
|--------------------------------------------------------------------------------------|--------------------|
| Supply Source | Annual Volume (AF) |
| Surface Water, Conejo Creek Diversion ¹ | 11,324 |
| Imported Water Calleguas and UWCD Deliveries from Santa Clara Watershed ² | 119,417 |
| Recycled Water ³ | 13,931 |
| Groundwater (see Table 10-16) | 51,300 to 82,300 |
| <i>Low Estimate (rounded to nearest 100 AF)</i> | <i>196,000</i> |
| <i>High Estimate (rounded to nearest 100 AF)</i> | <i>227,000</i> |

1. FCGMA 2016. Preliminary Draft Pleasant Valley Groundwater Sustainability Plan Tasks 6 – 10 Report. May.
2. Supplies from Calleguas are anticipated imported water supplies less 12,000 AF expected to go to Oxnard in the Santa Clara Watershed (CMWD 2016, Oxnard 2016). Supplies from UWCD are on average 9,417 AF to the Calleguas Creek Area from the Santa Clara Watershed (FCGMA 2016).
3. Camrosa 2016; Camarillo 2016, VCWWD8 2016, and VCWWD1 2016.

Suppliers

There are nine major water suppliers (entities serving more than 1,000 persons) in the Calleguas Creek Watershed and as well as 52 smaller water systems and irrigation companies. Persons or businesses in the Watershed are also supplied by private wells and surface water diversions. The major urban suppliers, documented in Table 10-18 provide water to cities and the unincorporated County. These are also mapped in Figure 10-5.

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Background Report

County of Ventura

**TABLE 10-18
MAJOR WATER SUPPLIERS - CALLEGUAS CREEK WATERSHED**

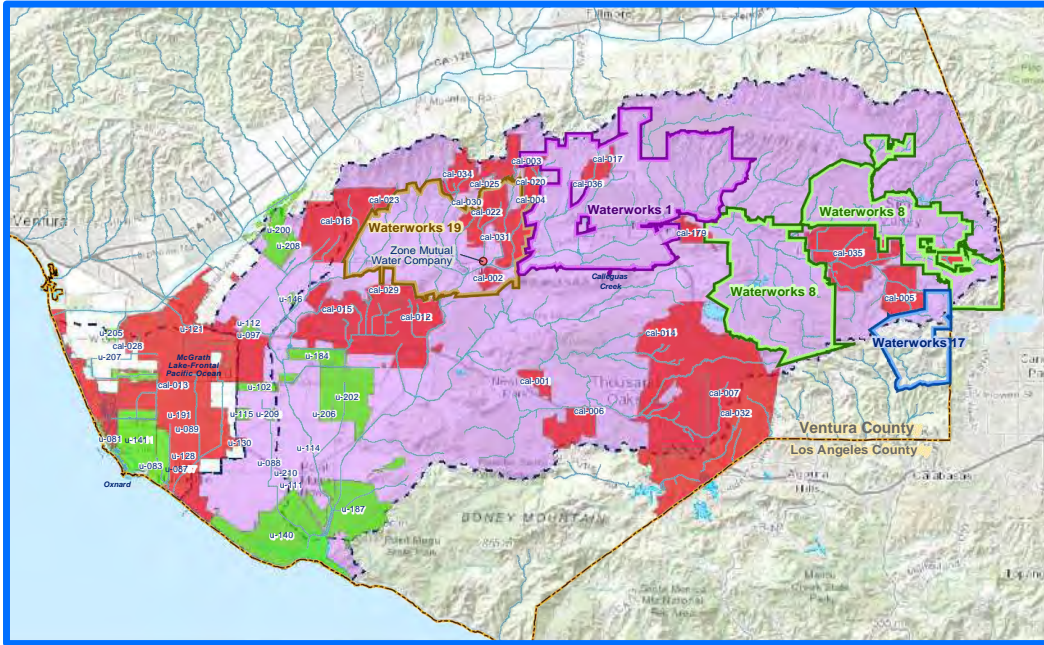
| Supplier/Primary Source(s) | Type | Area Served | Estimated Population Served | Annual Water Supplied* |
|------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------|
| Calleguas Municipal Water District Imported water | Special District | Calleguas Creek Watershed | ** | ** |
| City of Simi Valley/Ventura Co. Waterworks District 1 Imported water, groundwater, recycled water | City | Approximately 68 percent of the developed portion of the City of Simi Valley and unincorporated areas located southeast and north of the City boundary. | ~97,300 | ~ 23,800 AF |
| City of Oxnard Imported water, groundwater, recycled water | City | City of Oxnard, but excluding Channel Islands Beach and County unincorporated area along Hueneme Road to Naval Base Ventura County. | *** | *** |
| City of Thousand Oaks Imported water | City | Approximately 36 percent of the City of Thousand Oaks | ~53,300 | ~12,600 AF |
| City of Camarillo Imported water, groundwater, recycled water | City | 14 square miles (8,960 acres) within the western portion of the City, about 75 percent of the City of Camarillo | ~42,900 | ~8,600 AF |
| Port Hueneme Water Agency Groundwater, imported water | City | Generally, the City of Port Hueneme | ~22,000 | ~5,000 AF |
| Camrosa Water District Imported water, groundwater, surface water, recycled water | Special District | 31 square miles (19,840 acres) within the eastern portion of the City of Camarillo and Santa Rosa Valley. | ~30,000 | ~14,400 AF |
| Ventura County Waterworks District No. 1 Imported water, groundwater, recycled water | Special District | Generally, the City of Moorpark and ag lands between Camarillo and Thousand Oaks (33.7 square miles / 21,568 acres). | ~36,000 | ~11,800 AF |
| Ventura County Waterworks District No. 19 Imported water, groundwater | Special District | 23 square miles (14,720 acres) of the Somis community and surrounding rural areas. | ~3,300 | ~3,000 AF |
| Oak Park Water Service Imported water | Special District | Oak Park community, encompassing 4.1 square miles (2,624 acres). | ~12,200 | ~2,200 AF |
| California American Water Company – Ventura District Imported water | Private Company | Approximately half of Thousand Oaks (25 sq. mi.) and a small portion of unincorporated county in the Las Posas Country Club area. | ~63,400 | ~15,200 AF |
| California Water Service Company – Westlake District Imported water, recycled water | Private Company | 13 square miles (8,320) in south east City of Thousand Oaks | ~19,500 | ~8,100 AF |
| Golden State Water Company – Simi Valley Imported water, groundwater | Private Company | A portion of the City of Simi Valley and a portion of unincorporated Ventura County including Runkle Canyon | ~45,200 | ~6,500 AF |
| Pleasant Valley Mutual Water Company Imported water, groundwater | Private Company | Northwestern portion of the City of Camarillo | ~7,500 | ~900 AF |
| Crestview Mutual Water Company Imported water, groundwater | Private Company | Western portion of the City of Camarillo | Unknown | ~900 AF |
| <u>Zone Mutual Water Company</u> <u>Groundwater, imported water</u> | <u>Private</u> <u>Company</u> | <u>A private agricultural water supplier serving the unincorporated area around Somis.</u> | <u>Ag water</u> <u>supplier</u> | <u>~5,000-6,000</u> <u>AF</u> |

*Estimated based on records of water supplied 2010 to 2015, rounded to nearest 100 AF. Does not account for planned future expansion of demands and supplies.

**Calleguas Municipal Water District is a wholesale supplier, to avoid double counting information is only provided for retail water agencies.

***Oxnard falls across two watersheds. Oxnard population and supply provided as part of the Santa Clara River Watershed discussion.

Source: Calleguas Municipal Water District 2016, City of Simi Valley 2016, City of Thousand Oaks 2016, Ventura County Waterworks District No. 1 2011 and 2016, City of Camarillo 2011 and 2016, Port Hueneme Water Agency 2011 and 2016, California American Water Company 2012 and 2016, California Water Service Company 2011 and 2016, Golden State Water Company 2011 and 2016.

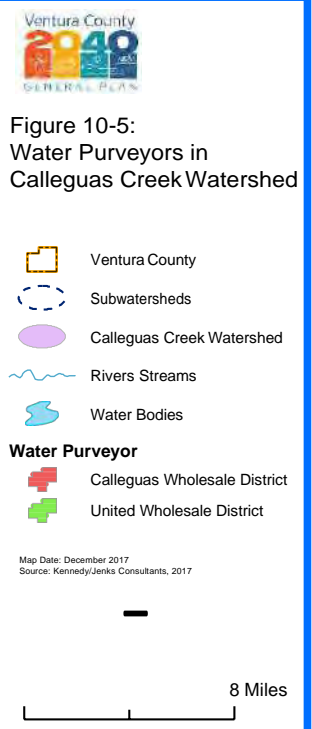


| WATER PURVEYORS | |
|---------------------------|---------------------------------------------------|
| UNITED WHOLESALE DISTRICT | |
| SUPPLIER | WATER COMPANY |
| United (u-016) | Del Norte MWC |
| United (u-080)* | Camarillo Airport Utility Enterprise |
| United (u-081)* | Channel Islands Beach Community Services District |
| United (u-083)* | City of Port Hueneme |
| United (u-087) | Cypress MWC |
| United (u-088) | Sunshine Trailer Park |
| United (u-089) | Dempsey Road MWC |
| United (u-093) | Evergreen Trailer Park |
| United (u-097) | Garden Acres MWC |
| United (u-099) | Glennview Mobile Home Park |
| United (u-102) | Hallwood, Inc. |
| United (u-111) | Navalair Mobilehome Court |
| United (u-112) | Nyeland Acres NWC |
| United (u-114) | Ocean View School District |
| United (u-115) | Oxnard Lemon MWC |
| United (u-121) | Rio Manor MWC |
| United (u-128) | Saviers Road MWC |
| United (u-130) | Silver Wheel Ranch Mobile Home Park |
| United (u-140)* | U.S.N.A.S. - Point Mugu |
| United (u-141)* | U.S.N.C.B.C. - Port Hueneme |
| United (u-146) | Ventura School |
| United (u-184) | Ventura County Dept of Airports |
| United (u-187) | Guadalasca MWC |
| United (u-191) | Santa Clara High School |
| United (u-200) | Lloyd-Butler MWC |
| United (u-202) | Rancho Sespe Workers Improvement Association |
| United (u-204) | Thornhill MWC |
| United (u-205) | Santa Clara Resources |
| United (u-206) | Houweling's Nursery |
| United (u-207) | Pyramid Flowers |
| United (u-208) | Saticoy Country Club |
| United (u-209) | Vujovich Ranch |
| United (u-210) | Bouquet Multimedia |

* Denotes agencies within the wholesale area of both United and Calleguas

| CALLEGUAS WHOLESALE DISTRICT | |
|------------------------------|--------------------------------------|
| SUPPLIER | WATER COMPANY |
| Calleguas (cal-001) | Academy MWC |
| Calleguas (cal-002) | Arroyo Las Posas MWC |
| Calleguas (cal-003) | Balcom Bixby MWA |
| Calleguas (cal-004) | Berylwood Heights MWC |
| Calleguas (cal-005) | Brandeis-Bardin MWC |
| Calleguas (cal-006) | Conejo Trailer Park |
| Calleguas (cal-007) | California Water Service Company |
| Calleguas (cal-012) | City Camarillo Water District |
| Calleguas (cal-013)* | City of Oxnard |
| Calleguas (cal-014) | City of Thousand Oaks |
| Calleguas (cal-015) | Crestview MWC |
| Calleguas (cal-017) | Epworth MWC |
| Calleguas (cal-020) | Fuller Falls MWC |
| Calleguas (cal-022) | Sunshine Ranch |
| Calleguas (cal-023) | La Loma Ranch MWC |
| Calleguas (cal-025) | Las Lomas Water Systems |
| Calleguas (cal-028) | Oxnard Union High School District |
| Calleguas (cal-029) | Pleasant Valley MWC |
| Calleguas (cal-030) | Rancho Canada Water Company |
| Calleguas (cal-031) | Tom Grether Farms, Inc. |
| Calleguas (cal-032) | Russell Valley MWD |
| Calleguas (cal-034) | Solano Verde MWC |
| Calleguas (cal-035) | Golden State Water Co. - Simi Valley |
| Calleguas (cal-036) | Thermic MWC |
| Calleguas (cal-042) | Waters Road Users Group |
| Calleguas (cal-179) | Butler Ranch MWC |
| Calleguas (cal-190) | Water Canyon Water Well |
| | Zone Mutual Water Company |

* Denotes agencies within the wholesale area of both United and Calleguas



Estimate of Demand

As described previously, in 2014, the VCWPD County of Ventura Watershed Protection District undertook an estimate of Countywide water demand, documented in the County of Ventura 2013 Water Supply and Demand (January 2015). Results of the study for the Calleguas Creek Watershed are provided in Table 10-19.

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| TABLE 10-19 ESTIMATED CALLEGUAS CREEK WATERSHED DEMAND | | | |
|-----------------------------------------------------------|--------------------------------|-----------------------------|-------------------|
| Watershed/Sub-watershed | Total Agricultural Demand (AF) | Total Municipal Demand (AF) | Total Demand (AF) |
| Calleguas Creek | 112,701 | 89,335 | 202,036 |
| Malibu Creek | 1,083 | 19,291 | 20,374 |
| South Coast | 86 | 2,035 | 2,121 |
| Subtotal (rounded to nearest 100 AF) | 113,900 | 110,700 | 224,600 |

Source: Hydrometrics 2015. Table 6.

Comparison of Supply and Demand

Estimated supply in the Calleguas Creek Watershed ranges from 196,000 AF to 227,000 AF in any given year. This supply of course will vary given drought and operational conditions. Estimated demand is approximately 224,600 AF. If the low-end estimate of supply is correct, demand is outpacing supply. If the high-end supply estimate is correct, supply is only slightly greater (1%) than demand.

Water-Related Challenges

Below are the water related challenges for the Calleguas Creek Watershed as of late 2016.

Long-Term Groundwater Overdraft and Increased Salinity

The Pleasant Valley Basin is in long-term overdraft (UWCD 2017a). Declining groundwater levels and over-pumping in the southern portion of the basin has led to upwelling of brines from high chloride zones (UWCD 2017b). In the northern Pleasant Valley Basin, streambed recharge with treated wastewater has caused increased salinity in the vicinity of the Arroyo Las Posas.

Localize Pumping Depressions

Within the West Las Posas Basin, groundwater levels have dropped by 325 feet between 1950 and the early 1990s (LPUG 2012). There is concern regarding subsidence, increased pumping lifts, decreased production and, eventually, dry wells (LPUG 2012). In addition, depressed groundwater levels may induce inflows of poor-quality groundwater from surrounding areas.

Heavy Dependence on Imported Water by Urban Users

Imported water makes up roughly 20 percent of Ventura County water supply. Approximately 75 percent of the County population receives water imported by Calleguas. Drought, earthquakes, and environmental demands on the SWP system could limit or even interrupt this water supply. Calleguas Municipal Water District, the primary imported water wholesaler in the region, has taken proactive steps to mitigate supply disruptions, including the construction of a local surface water storage reservoir (Lake Bard), construction of facilities to store surface water in local groundwater basins as well as facilities to

extract this water if needed, obtaining and storing spare pipe for emergencies, and building multiple interconnections with other water suppliers.

SECTION 10.5 TRENDS AND FUTURE CONDITIONS

As documented above, Traditional water supplies are limited in the Ventura County area and it is necessary to develop different supplies for Ventura County. Trends going forward include:

- Increased use of brackish groundwater. Ventura County has abundant sources of groundwater in parts of the county, but particularly in the Calleguas Creek Watershed, much of it is too high in salts for municipal and agricultural use. Two brackish groundwater treatment plans are currently in operation in the county (Port Hueneme Water Authority’s Brackish Water Reclamation Demonstration Facility, Camrosa Round Mountain Desalter). Other additional desalters are proposed. Use of this brackish groundwater would require connection to salinity management pipeline such as that operated by the Calleguas Municipal Water District.
- Delivery of SWP water to western Ventura County. The City of Ventura, UWCD, Casitas Municipal Water District, and Calleguas are coordinating a study to build a connection to the SWP.
- Increased use of recycled water. The City of Oxnard has constructed the Advanced Water Purification Facility (AWPF)–sometimes called the AWPE, which intensively treats wastewater to produce water suitable for irrigation, industrial processes, groundwater recharge and potable– and could be used for use potable water in the future. Many oOther water agencies in Ventura County are proposing increased use of recycled water and many are building infrastructure to deliver recycled water to agriculture and other irrigation users. In June 2016, the City of Ventura launched the Recycled Water Mobile Reuse Program whereby business, residents and other property owners in the City can use the City’s recycled water fill station, fill their own containers, then haul the water for use within the City. Agencies are also actively pursuing groundwater recharge with recycled water and direct potable reuse of recycled water.
- Expanded conjunctive use. Conjunctive use is the coordinated and planned use and management of both surface water and groundwater resources to maximize the availability and reliability of water supplies. Conjunctive use involves planned and managed operation of a groundwater basin and a surface water storage system using coordinated conveyance infrastructure. When surface water is available it is recharged and stored in a groundwater basin for later use.
- Increased use of stormwater and dry weather runoff. Currently these are underutilized sources of supplies that could augment groundwater supplies. This will include stormwater detention in medians and along curbs, permeable pavement, and other means to retain and recharge runoff. Various agencies within Ventura County are planning and coordinating increased use of stormwater as documented in the Ventura Countywide Municipal Storm Water Resource Plan (September 2016).
- Ocean desalination. The City of Ventura, Channel Islands Beach Community Services District and Calleguas are exploring the feasibility of ocean desalination (City of Ventura 2016b; Citizens Journal 2015; Calleguas 2016).
- Increased call for urban water use efficiency. In May ~~9~~, 2016, Governor Brown issued Executive Order B-37-16, which called for the establishment of long-term water conservation measures. DWR and the SWRCB ~~are to publicly release~~ released a draft long-term conservation framework in April 2017 by January 2017. This framework ~~will~~ included new water use targets based on strengthened

standards for indoor residential water use, outdoor irrigation, commercial/institutional/industrial water use, and distribution system water loss.

- Increased call for agricultural water use efficiency. Grant-funded efforts are being developed and implemented to provide financial incentives for equipment upgrades and similar efforts will likely continue, dependent upon funding availability.
- Changes in the operation of surface water supplies to protect endangered species. Water users are likely to pay more to build and maintain habitat protection measures. There will likely be less water available for agriculture and urban users because more flow will need to be left in waterways to protect habitat.

SECTION 10.6 KEY TERMS

The following key terms used in this report are defined as follows:

303(d) List. References section 303(d) of the Clean Water Act whereby states, territories, and tribes are to develop lists of waterbodies that are polluted or otherwise degraded and not meeting water quality standards. The 303(d) List is used to develop Total Maximum Daily Loads and or identify other mechanisms to improve water quality.

Acre-feet (AF). The amount of water necessary to cover an acre (43,560 square feet) to a depth of one foot, or 43,560 cubic feet, which is equivalent to 325,828 gallons.

Adjudication: With regard to water rights, a legal decision that allocates water to parties in proceedings and is overseen by a court-appointed watermaster.

Aquifer. A subsurface geological formation sufficiently permeable to conduct groundwater and capable of yielding usable quantities of water to a well or surface water spring.

Beneficial Uses. The various purposes for which water or aquatic ecosystems may be used. Examples include municipal and domestic water supply, agricultural water supplies, preservation and protection of areas of special biological significance resources, freshwater habitat, commercial and sport fishing, estuarine habitat, freshwater replenishment, groundwater recharge, industrial supply, marine habitat, fish migration, navigation, preservation of rare and endangered species, recreation, shellfish harvesting, and wildlife habitat.

Best Management Practice (BMP). Any program, technology, process, siting criteria, operational methods or measures, or engineered systems, which when implemented prevent, control, remove, or reduce pollution.

Conjunctive Use. The practice of storing surface water in a groundwater basin (typically in wet years) and withdrawing it from the basin in later (typically dry) years.

Critical Overdraft. As defined in the Sustainable Groundwater Management Act a basin is subject to critical overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts.

Coastal Zone. That portion of the land and water area of Ventura County as shown on the "Coastal Zone" maps adopted by the California Coastal Commission.

Groundwater Basin. An aquifer or system of aquifers that has reasonably well-defined boundaries and more or less definite areas of recharge and discharge. Refers to subsurface deposits and geologic formations that are capable of yielding usable quantities of water to a well or spring. The Sustainable Groundwater Management Act defines “basin” as a groundwater basin or subbasin identified and defined in Department of Water Resources Bulletin 118 or as modified pursuant to Section 10722 of the Act.

Integrated Regional Water Management. A comprehensive and collaborative approach for managing water to concurrently achieve social, environmental and economic objectives. This integrated approach delivers higher value for investments by considering all interests, providing multiple benefits, and working across jurisdictional boundaries at the appropriate geographic scale. Examples of multiple benefits include improved water quality, better flood management, restored and enhanced ecosystems, and more reliable water supplies” (Department of Water Resources 2014, California Water Plan Update 2013).

Mutual Water Company. A private corporation or association organized for the purposes of delivering water to its stockholders and/or members.

Permanent domestic water supply. A supply or supplies of potable water to be provided by a system or systems approved by a public health agency of the State of California or the Environmental Health Division of the Ventura County Resource Management Agency and the Ventura County Public Works Agency in a quantity sufficient to supply adequately and continuously the total domestic requirements of all consumers under maximum demand conditions.

Retail Water Supplier. A water agency that provides water to individual customers and end users such as homes and businesses.

Safe Yield. Commonly defined as the maximum quantity of water that can be continuously withdrawn from a reservoir or groundwater basin without causing adverse effects.

State Water Project. The SWP is the largest state-built, multi-purpose water project in the country. It was authorized by the California State Legislature in 1959, with the construction of most initial facilities completed by 1973. Today, the SWP includes 28 dams and reservoirs, 26 pumping and generating plants and approximately 660 miles of aqueducts. The primary water source for the SWP is the Feather River, a tributary of the Sacramento River. Storage released from Oroville Dam on the Feather River flows down natural river channels to the Sacramento-San Joaquin River Delta (Delta). While some SWP supplies are pumped from the northern Delta into the North Bay Aqueduct, the vast majority of SWP supplies are pumped from the southern Delta into the 444-mile-long California Aqueduct. The California Aqueduct conveys water along the west side of the San Joaquin Valley to Edmonston Pumping Plant, where water is pumped over the Tehachapi Mountains into Southern California.

Stormwater Pollution Control Plan. A plan identifying potential pollutant sources from a construction site and describing proposed design, placement and implementation of Best Management Practices to effectively prevent non-stormwater discharges and reduce pollutants in stormwater discharges to the storm drain system, to the maximum extent practicable during construction activities.

Stormwater Pollution Prevention Plan. A plan, as required by a State General Permit for Stormwater Discharges, identifying potential pollutant sources and describing the design, placement and implementation of Best Management Practices, to effectively prevent non-stormwater discharges and reduce pollutants in stormwater discharges during activities covered by the General Permit.

Stormwater Quality Master Plan. A plan that defines the strategy and describes the design, placement and implementation of Best Management Practices to effectively prevent non-stormwater discharges and reduce pollutants in stormwater discharges to the maximum extent practicable, for post-construction discharges to the stormdrain system.

Total Maximum Daily Load. A regulatory “pollution budget” based on a calculation of the maximum amount of a pollutant that can occur in a waterbody and still meet water quality standards so as to protect beneficial uses. The TMDL also allocates the necessary reductions to one or more pollutant sources. TMDLs can force the implementation of BMPs, infrastructure improvements, and other actions to limit pollution.

Watershed. A geographic region within which all water drains into a particular river, stream, or other waterbody. Also referred to as a catchment area.

Wholesale Water Supplier. A water agency that provides water to retail water agencies rather than directly providing water to the end user (homes, businesses, etc.).

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APPENDIX 10.A: SGMA/CALIFORNIA GOVERNMENT CODE

65350.5. REVIEW AND CONSIDERATION OF GROUNDWATER REQUIREMENTS

Before the adoption or any substantial amendment of a city's or county's general plan, the planning agency shall review and consider all of the following:

(a) An adoption of, or update to, a groundwater sustainability plan or groundwater management plan pursuant to Part 2.74 (commencing with Section 10720) or Part 2.75 (commencing with Section 10750) of Division 6 of the Water Code or groundwater management court order, judgment, or decree.

(b) An adjudication of water rights.

(c) An order or interim plan by the State Water Resources Control Board pursuant to Chapter 11 (commencing with Section 10735) of Part 2.74 of Division 6 of the Water Code.

65352. REFERRAL OF PROPOSED GENERAL PLAN UPDATES TO OTHER AGENCIES

(a) Before a legislative body takes action to adopt or substantially amend a general plan, the planning agency shall refer the proposed action to all of the following entities:

(1) A city or county, within or abutting the area covered by the proposal, and any special district that may be significantly affected by the proposed action, as determined by the planning agency.

(2) An elementary, high school, or unified school district within the area covered by the proposed action.

(3) The local agency formation commission.

(4) An areawide planning agency whose operations may be significantly affected by the proposed action, as determined by the planning agency.

(5) A federal agency, if its operations or lands within its jurisdiction may be significantly affected by the proposed action, as determined by the planning agency.

(6) (A) The branches of the United States Armed Forces that have provided the Office of Planning and Research with a California mailing address pursuant to subdivision (d) of Section 65944, if the proposed action is within 1,000 feet of a military installation, or lies within special use airspace, or beneath a low-level flight path, as defined in Section 21098 of the Public Resources Code, and if the United States Department of Defense provides electronic maps of low-level flight paths, special use airspace, and military installations at a scale and in an electronic format that is acceptable to the Office of Planning and Research.

(B) Within 30 days of a determination by the Office of Planning and Research that the information provided by the Department of Defense is sufficient and in an acceptable scale and format, the office shall notify cities, counties, and cities and counties of the availability of the information on the Internet. Cities, counties, and cities and counties shall comply with subparagraph (A) within 30 days of receiving this notice from the office.

(7) A public water system, as defined in Section 116275 of the Health and Safety Code, with 3,000 or more service connections, that serves water to customers within the area covered by the proposal. The public water system shall have at least 45 days to comment on the proposed plan, in accordance with subdivision (b), and to provide the planning agency with the information set forth in Section 65352.5.

(8) Any groundwater sustainability agency that has adopted a groundwater sustainability plan pursuant to Part 2.74 (commencing with Section 10720) of Division 6 of the Water Code or local agency that otherwise manages groundwater pursuant to other provisions of law or a court order, judgment, or decree within the planning area of the proposed general plan.

(9) The State Water Resources Control Board, if it has adopted an interim plan pursuant to Chapter 11 (commencing with Section 10735) of Part 2.74 of Division 6 of the Water Code that includes territory within the planning area of the proposed general plan.

(10) The Bay Area Air Quality Management District for a proposed action within the boundaries of the district.

(11) A California Native American tribe that is on the contact list maintained by the Native American Heritage Commission and that has traditional lands located within the city's or county's jurisdiction.

(12) The Central Valley Flood Protection Board for a proposed action within the boundaries of the Sacramento and San Joaquin Drainage District, as set forth in Section 8501 of the Water Code.

(b) An entity receiving a proposed general plan or amendment of a general plan pursuant to this section shall have 45 days from the date the referring agency mails it or delivers it to comment unless a longer period is specified by the planning agency.

(c) (1) This section is directory, not mandatory, and the failure to refer a proposed action to the entities specified in this section does not affect the validity of the action, if adopted.

(2) To the extent that the requirements of this section conflict with the requirements of Chapter 4.4 (commencing with Section 65919), the requirements of Chapter 4.4 shall prevail.

65352.5. REQUIREMENT TO PROVIDE WATER-RELATED DOCUMENTS TO GENERAL PLAN AGENCY

(a) The Legislature finds and declares that it is vital that there be close coordination and consultation between California's water supply or management agencies and California's land use approval agencies to ensure that proper water supply and management planning occurs to accommodate projects that will result in increased demands on water supplies or impact water resource management.

(b) It is, therefore, the intent of the Legislature to provide a standardized process for determining the adequacy of existing and planned future water supplies to meet existing and planned future demands on these water supplies and the impact of land use decisions on the management of California's water supply resources.

(c) Upon receiving, pursuant to Section 65352, notification of a city's or a county's proposed action to adopt or substantially amend a general plan, a public water system, as defined in Section 116275 of the Health and Safety Code, with 3,000 or more service connections, shall provide the planning agency with the following information, as is appropriate and relevant:

(1) The current version of its urban water management plan, adopted pursuant to Part 2.6 (commencing with Section 10610) of Division 6 of the Water Code.

(2) The current version of its capital improvement program or plan, as reported pursuant to Section 31144.73 of the Water Code.

(3) A description of the source or sources of the total water supply currently available to the water supplier by water right or contract, taking into account historical data concerning wet, normal, and dry runoff years.

(4) A description of the quantity of surface water that was purveyed by the water supplier in each of the previous five years.

(5) A description of the quantity of groundwater that was purveyed by the water supplier in each of the previous five years.

(6) A description of all proposed additional sources of water supplies for the water supplier, including the estimated dates by which these additional sources should be available and the quantities of additional water supplies that are being proposed.

(7) A description of the total number of customers currently served by the water supplier, as identified by the following categories and by the amount of water served to each category:

(A) Agricultural users.

(B) Commercial users.

(C) Industrial users.

(D) Residential users.

(8) Quantification of the expected reduction in total water demand, identified by each customer category set forth in paragraph (7), associated with future implementation of water use reduction measures identified in the water supplier's urban water management plan.

(9) Any additional information that is relevant to determining the adequacy of existing and planned future water supplies to meet existing and planned future demands on these water supplies.

(d) Upon receiving, pursuant to Section 65352, notification of a city's or a county's proposed action to adopt or substantially amend a general plan, a groundwater sustainability agency, as defined in Section 10721 of the Water Code, or an entity that submits an alternative under Section 10733.6 shall provide the planning agency with the following information, as is appropriate and relevant:

(1) The current version of its groundwater sustainability plan or alternative adopted pursuant to Part 2.74 (commencing with Section 10720) of Division 6 of the Water Code.

(2) If the groundwater sustainability agency manages groundwater pursuant to a court order, judgment, decree, or agreement among affected water rights holders, or if the State Water Resources Control Board has adopted an interim plan pursuant to Chapter 11 (commencing with Section 10735) of Part 2.74 of Division 6 of the Water Code, the groundwater sustainability agency shall provide the planning agency with maps of recharge basins and percolation ponds, extraction limitations, and other relevant information, or the court order, judgment, or decree. Sustainable Groundwater Management Act, and related provisions (as chaptered) Page 6 As Effective January 1, 2016 [rev. 1/15/2016]

(3) A report on the anticipated effect of proposed action to adopt or substantially amend a general plan on implementation of a groundwater sustainability plan pursuant to Part 2.74 (commencing with Section 10720) of Division 6 of the Water Code.

Background Report

County of Ventura

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Downing, Clay

From: David Magney <dmagney@cnps.org>
Sent: Thursday, February 27, 2020 4:51 PM
To: Curtis, Susan; General Plan Update
Cc: Kipp Callahan; Nick Jensen; Weiner, Jason; Ileene Anderson; Patt McDaniel
Subject: CNPS comments on DEIR for the VC GP 2040 update
Attachments: CNPS-Ventura County General Plan 2040 DEIR Comments-20200227-Magney.pdf

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Ms. Curtis,
Please find attached California Native Plant Society comments on the DEIR and GP 2040 update.
We would like to have additional time to provide additional focused comments.
Respectfully,

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27 February 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, California 93009-1740
susan.curtis@ventura.org, GeneralPlanUpdate@ventura.org

**Re: Comments on the Draft Environmental Impact Report for the County of Ventura
Draft 2040 General Plan**

Dear Ms. Curtis:

The California Native Plant Society (CNPS), a membership-based 501(c)(3) nonprofit corporation herein provide these comments on the proposed Ventura County 2040 General Plan (GP) and associated Draft Environmental Impact Report (DEIR). CNPS's comments are focused on the biological resources with the intent to ensure that they are appropriately conserved through land use planning and government actions and management at the discretion of the county.

General Comments:

There is no mention of information on the botanical resources of Ventura County that have been developed and made available to the public, such as by the Channel Islands Chapter of the California Native Plant Society (CNPSI), available online at <http://cnpsci.org/>, and by David Magney for the Ventura County flora (www.venturaflora.com). The GP mentions information provided by the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS), which is a good starting point; however, so much more detail is available that would be helpful to decisionmakers and the public that the true picture of the incredible biodiversity and species richness found in Ventura County.

For example, there is no mention of bryophyte resources, nor any mention of lichens, which are generally referred to as nonvascular plants. Both of these groups are both diverse and important components of the biological resources of Ventura County.

Qualified Biologist – since there are no codified criteria that the VCPD uses consistently to determine who is qualified, CNPS highly recommends that the following be inserted under the definition of a qualified biologist:

Require use of a Certified Consulting Botanist for botanical resource assessments and surveys.

Require use of a Certified Restoration Ecologist or Certified Consulting Botanist for habitat restoration planning, mitigation, or implementation work.

Thresholds of Significance (page 4.4-13) uses the term “substantially”. “Substantially” is an ambiguous term that can be next to impossible to quantify, particularly if the impact appears to be small in some way. Without an actual metric, significant impacts could be considered less-than-significant by some biologists. Using actual numbers would be better, with some means to deviate if sufficient evidence is



provided to make a reasonable and sound, science-based argument for a different significance threshold number or metric.

For example, impacts to wetland habitat functions is identified as significant, if they are substantial. Measuring the total area of a wetland directly impacted is fairly straightforward; however, measuring the wetland functions that are impacted is more complex, and doing so for indirect impacts is even more challenging. It would be easier and fairer, and more accurate to use a tested assessment method, and set a significance threshold, say a 5% change, to determine if the impact would be significant. The only objective tool currently available to measure wetland functions is the U.S. Army Corps of Engineers' Hydrogeomorphic Assessment Method (HGM), which is described in more detail in comments below.

Policies

Following are the proposed General Plan (GP) Conservation and Open Space Element policies, with CNPS's assessment of their benefit in protecting biological resources and how they could be improved to better meet the stated objectives.

The Public Review Draft Policy Document, Section 6.1 – Biological Resources, provides a **very** general overview that hardly captures the richness, diversity, and uniqueness of the biological resources within Ventura County. At least a bit more information would be beneficial in expressing this fact since so much information about the biological resources of the county is readily available, much of it compiled in each biological assessment performed for every project that has gone through a CEQA assessment.

For example, expand the sentence “Ventura County contains a diverse range of elevations, biogeographic features and ecosystems” with “, which provides a large variety of habitats that supports 321 species of lichens, 97 species of bryophytes, 1,939 **native** vascular plants (Magney 2020 - <http://venturaflora.com/files/vcfloristics.htm>), 338 bird species, 11 amphibian species, 30 reptile species, several freshwater fish species, 50 mammal species, and an unknown (very high) number invertebrate species, but at least 117 species of butterflies.”

Policy COS-1.1: Protection of Sensitive Biological Resources. The County shall ensure that discretionary development that could potentially impact sensitive biological resources be evaluated by a qualified biologist to assess impacts and, if necessary, develop mitigation measures that fully account for the impacted resource. When feasible, mitigation measures should adhere to the following priority: avoid impacts, minimize impacts, and compensate for impacts. If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision-making body.

This policy is good except there is no need or justification to insert “when feasible” regarding how to adhere to approaching mitigation measures for significant impacts. CEQA guidelines already provide the order of preference. The biggest challenge this policy faces is in how a “qualified biologist” is determined (see detailed comments and recommendations below).

Policy COS-1.2: Consideration of Sensitive Biological Resources. The County shall identify sensitive biological resources as part of any land use designation change to the General Plan Land Use Diagram or zone designation change to the Zoning Ordinance that would intensify the



uses in a given area. The County shall prioritize conservation of areas with sensitive biological resources.

This policy is good; however, the means and criteria that should be used to determine which biological resources are considered sensitive needs to be defined. This should not be left to the environmental consulting firms hired by project proponents that will almost certainly have an inherent bias against identifying sensitive resources that would harm their client's project interests.

Policy COS-1.7: Balancing Resource Preservation and Flood Protection. The County shall require that discretionary development and County-initiated projects balance the preservation of streams, wetlands, and riparian habitats with the need to adequately protect public safety and property from flooding hazards by incorporating natural or nature-based flood control infrastructure, (e.g., wetland restoration, soil conservation, vegetated levees), when feasible.

CNPS supports this policy.

Policy COS-1.8: Bridge Crossing Design. The County shall require discretionary development that includes new or modified road crossings over streams, wetlands and riparian habitats to include bridging design features with bridge columns located outside the riparian habitat areas, when feasible.

CNPS supports this policy.

Policy COS-1.9: Agency Consultation Regarding Biological Resources. The County shall consult with the California Department of Fish and Wildlife, the Regional Water Quality Control Board, the U.S. Fish and Wildlife Service, National Audubon Society, California Native Plant Society, National Park Service for development in the Santa Monica Mountains or Oak Park Area, and other resource management agencies, as applicable during the review of discretionary development applications to ensure that impacts to biological resources, including rare, threatened, or endangered species, are avoided or minimized.

This policy is good except consultation should cover the entire county, not just for the Santa Monica Mountains and Oak Park areas. The VCPD staff biologists have in the past convened the biologists from the above listed entities to review various discretionary projects under review to obtain guidance on impacts and mitigation measures. At a minimum, these entities should receive formal notice of all discretionary projects that may impact biological resources so that they have an opportunity to provide comments, on any project anywhere in the county. The VCPD should maintain a list of contacts of biologists with each of these entities as part of this policy.

Policy COS-1.10: Evaluation of Potential Impacts of Discretionary Development on Wetlands. The County shall require discretionary development that is proposed to be located within 300 feet of a wetland to be evaluated by a County-approved biologist for potential impacts on the wetland and its associated habitats pursuant to the applicable provisions of the County's Initial Study Assessment Guidelines.

This policy is good but it should be strengthened by including impacts to wetland functions, not just habitats. Indirect impacts that adversely affect one or more wetland functions needs to be included in



this policy. Also, the criteria for determining how the approved biologist is determined needs to be developed (see comments below about qualified biologists and wetland assessment methods).

Policy COS-1.11: Discretionary Development Sited Near Wetlands. The County shall require discretionary development to be sited 100 feet from wetland habitats, except as provided below. The 100-foot setback may be increased or decreased based upon an evaluation and recommendation by a qualified biologist and approval by the decisionmaking body based on factors that include, but may not be limited to, soil type, slope stability, drainage patterns, the potential for discharges that may impair water quality, presence or absence of endangered, threatened or rare plants or animals, direct and indirect effects to wildlife movement, and compatibility of the proposed development with use of the wetland habitat area by wildlife. Discretionary development that would have a significant impact on a wetland habitat shall be prohibited unless mitigation measures are approved that would reduce the impact to a less than significant level. Notwithstanding the foregoing, discretionary development that would have a significant impact on a wetland habitat on land within a designated Existing community may be approved in conjunction with the adoption of a statement of overriding considerations by the decision-making body.

This policy is good except the evaluation must be conducted by a Certified Wetland Scientist or a Certified Consulting Botanist. Since there are no standard or consistent methods used by the County to determine which biologists are actually qualified, such determinations are best made by professional peers, such as certification entities.”

Furthermore, the evaluation/assessment should use an objective assessment tool or model, such as the Hydrogeomorphic Assessment Method (HGM) regional models (<https://wetlands.el.ercd.dren.mil/pdfs/wrpde9.pdf>), which have been used successfully in Ventura County in the past using either the Santa Margarita River Riverine HGM model for low gradient streams and rivers or the South Coast Santa Barbara Riverine HGM model for high gradient streams. California Rapid Assessment Method (CRAM) models have only limited applicability in that CRAM does not measure wetland functions, only HGM models do. To determine significance, a percent change in wetland functions is an appropriate and unbiased approach. A 10% change threshold has been used successfully in such assessments in Ventura County using regional HGM models, but a 5% change may be more appropriate since a fully functioning wetland is extremely important for ecosystem health.

Policy COS-1.12: Discretionary Development and Landscaping. The County shall require landscaping associated with discretionary development, or subject to the California Water Efficient Landscape Ordinance (WELO), to be water-efficient and include native, pollinator-friendly plants consistent with WELO guidelines, as applicable. The planting of invasive and watch list plants as inventoried by the California Invasive Plant Council shall be prohibited, unless planted as a commercial agricultural crop or grown as commercial nursery stock.

The WELO ordinance was developed in San Mateo County and calls for 6 inches of compost and 3 inches of mulch in landscaping with the goal of conserving soil moisture from evaporation. This simplistic approach is not necessarily appropriate for landscaping using local native plants, and in many instances will kill them. The policy should be modified to include the development



of landscaping guidelines that are appropriate for Ventura County communities and native plants that meet the basic goals of WELO.

Policy COS-1.13: Partnerships for Protection of Natural and Biological Resources. The County shall continue to work in partnership with agencies, organizations, and entities responsible for the protection, management, and enhancement of the county's biological resources.

This policy is good, but listing of the entities would help eliminate potential for failure to notify select groups. Certainly, count CNPS in as both willing and able to work in partnership with the County to implement this policy.

Policy COS-1.14: Ecological Information Programs. The County shall support programs that encourage awareness and respect for the natural environment.

This policy sounds great; however, what level and types of support will the County provide? The policy language needs to go into greater depth on how the County will implement it.

Policy COS-1.15: Countywide Tree Planting. The County shall establish and support a countywide target for the County, cities in Ventura County, agencies, organizations, businesses, and citizens to plant two million trees throughout the county by 2040.

CNPS fully supports this policy, with the proviso that no invasive exotic tree species be planted under this policy, and that native (to Ventura County) tree species should be emphasized and prioritized.

Policy COS-2.1: Beach Erosion. The County shall strive to minimize the risk from the damaging effects of coastal wave hazards and beach erosion and reduce the rate of beach erosion.

CNPS supports this policy. However, how it is implemented is important in that some hardscaping actions could harm coastal biological resources. The County needs to take the bigger, longer-term perspective when deciding what beach erosion control projects are planned and approved. Sea level is rising and there is little the County can do to prevent it. Emphasis should be placed on natural processes, which should take priority over manmade structures (which require expensive maintenance). Furthermore, coastal species need to have places to migrate (inland) to as sea level rises; therefore, migration paths must be either created or maintained to accommodate that migration.

Policy COS-2.2: Beach Nourishment. The County shall support activities that trap or add sand through beach nourishment, dune restoration, and other adaptation strategies to enhance or create beaches in areas susceptible to sea-level rise and coastal flooding.

See comments for Policy COS-2.1 above.

Policy COS-2.4: Mining Activities. The County shall require discretionary development for all mining activities in County streams and rivers to incorporate all feasible measures to mitigate beach sand replenishment impacts.

CNPS supports this policy.



Policy COS-2.5: Shoreline Protective Structure Design. The County shall require all shoreline protective structures which alter natural shoreline processes to be designed to eliminate or mitigate adverse impacts on local shoreline sand supplies.

CNPS supports this policy. See comments for Policy COS-2.1 above.

Policy COS-2.9: Estuarine Protections. The County shall support efforts by other agencies and organizations to maintain and enhance estuarine systems in order to protect and enhance coastal fisheries and other marine resources.

CNPS supports this policy.

Policy COS-2.10: Saltwater Intrusion. The County shall work with Federal, State, and local jurisdictions, agencies, and organizations to monitor saltwater intrusion and take proactive steps to reduce intrusion, including:

- working to maintain and restore coastal wetlands buffers;
- enhancing groundwater management to prevent excessive pumping in order to restore groundwater levels needed to reduce saltwater intrusion; and
- implementing mitigation measures to prevent saltwater intrusion into estuaries and groundwater basins including, but not limited to, implementation of reactive barriers and use of pumps to divert saltwater.

CNPS generally supports this policy.

Policy COS-2.11: Dune Vegetation. Discretionary development which would result in the removal of dune vegetation shall be conditioned to replace the vegetation.

CNPS supports this policy. However, it would be preferable to avoid the impact if at all possible. The policy should reflect that avoidance of impacts to dune vegetation is preferred.

Policy COS 9.3: Open Space Preservation. The County shall place a high priority on preserving open space lands for recreation, habitat protection, wildlife movement, flood hazard management, public safety, water resource protection, and overall community benefit.

CNPS supports this policy.

The following California Environmental Quality Act (CEQA) policy language regarding compensatory mitigation: "When there is no other feasible alternative to avoiding an impact to a wetland habitat, the County shall require the discretionary development to provide restoration and/or replacement habitat as compensatory mitigation such that no overall net loss of wetland habitat results from the development. The restoration and/or replacement habitat shall be 'in kind' (i.e. same type and acreage) and provide wetland habitat of comparable biological value. On-site restoration and/or replacement shall be preferred wherever possible. A habitat restoration and/or replacement plan to describe and implement such compensatory mitigation shall be developed in consultation with all agencies that have jurisdiction over the resource.

Implementation Programs



- ☐ Program A: Standards for Compact Development. The County shall update the Non-Coastal Zoning Ordinance to include development standards for project design that features compact development adjacent to scenic or sensitive biological resources.

CNPS supports this policy.

- ☐ Program B: Update Initial Study Assessment Guidelines. The County shall update the Initial Study Assessment Guidelines to identify a range of mitigation measures for protected biological resources. This will include updating Section 4, Biological Resources, to include the following California Environmental Quality Act (CEQA) policy language regarding compensatory mitigation: “When there is no other feasible alternative to avoiding an impact to a wetland habitat, the County shall require the discretionary development to provide restoration and/or replacement habitat as compensatory mitigation such that no overall net loss of wetland habitat results from the development. The restoration and/or replacement habitat shall be ‘in kind’ (i.e. same type and acreage) and provide wetland habitat of comparable biological value. On-site restoration and/or replacement shall be preferred wherever possible. A habitat restoration and/or replacement plan to describe and implement such compensatory mitigation shall be developed in consultation with all agencies that have jurisdiction over the resource.

CNPS supports this policy program.

- ☐ Program C: Update Tree Protection Ordinance. The County shall update existing Tree Protection Regulations in the Non-Coastal Zoning Ordinance to further enhance conservation of our urban forests and the preservation of the County’s oak woodland resources. Updates shall include incorporation of Board-adopted recommendations from the Ventura County Oak Woodlands Management Plan (2007), which include tree replacement offsets for ministerial development projects that remove protected trees, revisiting mitigation ratios for tree removal and oak woodland impacts for discretionary development projects. The update shall also evaluate existing protections for invasive, non-native trees and consider the degree to which they provide habitat for a species during critical life stages (e.g., colonial roost sites, breeding sites, etc.). In addition, the evaluation shall also include anticipated effects of climate change on the urban forest environment.

CNPS supports this policy; however, the evaluation for any updates should include Certified Consulting Arborists (particularly those with experience in assessing the functions (not the values) of trees from a habitat/ecological function perspective and Certified Consulting Botanists.

- ☐ Program D: Research Feasibility of Updating Vegetation Maps. In partnership with other natural resource agencies and organizations, the County shall explore the feasibility of updating vegetation maps for unincorporated areas to facilitate the accurate analysis of potential impacts of development on vegetation communities and other sensitive biological resources. If necessary, the County shall develop or modify regulations and development standards to ensure adequate protections for vegetation communities.

There really is no need to “research the feasibility of updating vegetation maps” as there is an ongoing statewide program that CDFW and CNPS have been implementing for over a decade



now. The goal is to map all the natural vegetation of the state according to The Manual of California Vegetation classification system. Part of the county has already been so mapped, including the entire Ventura River floodplain (by David Magney Environmental Consulting [DMEC] through Aspen Environmental Group as part of the Matilija Dam Removal project), the Santa Monica Mountains (by CNPS and the National Park Service), the Santa Clara River 500-year floodplain (by TNC through the California State Coastal Conservancy), and a portion of the eastern end of the Santa Susana Mountains (by CNPS). In 2006, DMEC cobbled together all the existing (at that time) vegetation maps for VCPD as a starting point. That map, as a GIS database (which was used as the basis for Figure 8-4 Vegetation Communities on Page 8-27 of Appendix B of the DEIR but not fully credited), was intended to be updated with each vegetation mapping effort for each discretionary project submitted to VCPD, but a lack of funding impeded this effort. This policy should instead focus on identifying means to obtain the funding needed to update the vegetation map of the county in one consistent effort.

The County should collaborate with CDFW and federal land management agencies to obtain funding to update and complete the vegetation mapping of Ventura County.

- ☐ Program E: Update Non-Coastal Zoning Ordinance Standards for Vegetation Communities. Based on the results of Implementation Program COS-D, (updated vegetation mapping), the County shall develop or modify regulations and development standards to ensure adequate protections for vegetation mapping, if necessary.

CNPS supports this policy program.

- ☐ Program F: Evaluate Increase to Standard Setback from Wetland. The County shall evaluate whether a standard 200-foot setback from wetlands should apply to development in order to improve water quality, reduce the impacts of flooding and provide adequate protection for sensitive biological resources.

CNPS supports this policy program; however, the use of the appropriate regional HGM model can answer this basic question on a project-by-project basis. Studies have shown that a 300-foot setback buffer is better to protect may wetland and habitat functions, considerably more for some resources/functions (Robins 2002¹). DMEC's assessment of wetland function impacts for a single-family residence in the Ojai Valley that was to be placed within the County's wetland 100-foot setback zone provided an objective assessment of expected project impacts while also identifying specific mitigation measures that could be adopted that would significantly improve wetland functions onsite ([DMEC 2006](#)).

- ☐ Program G: Identification of Critical Habitats. The County shall continue to partner with state and federal agencies to identify those areas of the County that are considered to be

¹ Robins, James D. 2002. Stream Setback Technical Memo. 18 October 2002. Jones & Stokes Associates, Oakland, California. Prepared for Napa County Conservation Development and Planning Department, Napa, California.



critical habitats of endangered, threatened or rare species as well as for other significant biological resources.

Unfortunately, since politics too often prevents federal and state agency biologists from formally designating what habitat(s) are critical for listed species (it too often gets bumped up to Washington DC where development lobbyists are most powerful and the local experts recommendations are overruled), the County should include NGOs that have expertise with these listed species in the analyses of what habitats are indeed critical for the species continued existence in Ventura County. Those NGOs include CNPS, Audubon Society, The Wildlife Society, and others. For County planning purposes, the VCPD, through collaboration with agency and NGO expert biologists, should determine what area and habitats meet the definition of Critical Habitat rather than Washington or Sacramento political appointees. The County can use existing definitions for sensitive habitats that are already developed, such as Environmentally Sensitive Habitat (ESHA) for the Coastal Zone or Sensitive Ecological Areas (SEAs) in Los Angeles County.

☐ Program H: County Tree Planting Program. The County shall plant at least one thousand trees annually on County property.

This is a great policy; however, planting of invasive exotic tree species should be expressly prohibited. The policy should also be more inclusive as "County property" will likely become saturated with trees in a few years. Requiring trees to be included in landscape plans for all new homes and existing homes that request significant changes would increase the number of trees planted each year.

PFS-12 – To protect life and property through the efficient provision of fire prevention, suppression, and rescue services and facilities.

PFS-12.1 Collaboration Amount Partners. The County shall encourage the Fire Protection District to continue to develop relationships with local, state, and federal agencies and non-profit organizations to collaboratively inform and prepare citizens for wildland fires.

CNPS supports this policy and is willing to collaborate with the Fire Protection District.

PFS-12.4 Consistent Fire Protection Standards for New Development. The County, in coordination with local water agencies and the Fire Protection District, shall require new discretionary development to comply with applicable standards for fire flows and fire protection.

Considerable research has been conducted on what measures are most effective in protecting houses from wildfires, and removing natural vegetation more than 100 feet is away is not the solution. Require all new homes and homes being remodeled to incorporate effective measures such as vent screens with 1/16th inch mesh, not allow combustible materials within 3 feet of the home/building, installing rooftop sprinklers that are supported by municipal water supplies or pumped from a well or tank with a battery power backup in case of a power outage.

Planting with local low growing natives, appropriately spaced and maintained is preferable to clearings exotic annual grasses which are prone to fire when dry. Native plants should not be avoided on the assumption of flammability without adequate data and should be encouraged near natural areas. Zone



appropriate planting around structures, as described in the CNPS Fire Recovery Guide should be practiced around structures. <https://www.cnps.org/give/priority-initiatives/fire-recovery>

Zone 1: Within 0 - 30 feet of your home.

Make this area and your evacuation route “lean, clean, and green.”

- Create a 5-foot no-fuel zone around your house to deter fire under the eaves of your home. (Relocate wood piles, garbage cans, mulch, wooden fences, and flammable plant material.)
- Prevent trees and large shrubs from touching each other or hanging over structures. (Cal Fire currently instructs spacing of at least 10 feet.)
- Remove “laddering” plants that can spread a ground fire up to a tree’s crowns.
- Remove loose plant debris from gutters, roofs, and other structures.
- Remove dead or dying trees. (Note: Make sure a tree is actually dead. See page 29.)
- Break up continuous, flammable ground cover (e.g., grasses, mulch) with hardscaping and other fire-resistant features.
- Provide good access to water within 30 feet of your home.

Zone 2: Within 30 - 100 feet of your home, reduce fuels.

- Keep your yard clear of trash, natural debris, and dried grasses.
- Mow grasses before 10 a.m. and avoid mowing on hot, windy days.
- Use low-maintenance plants that require low water and pruning.
- Clear dead and diseased plants. (See page 29 for post-fire care of trees.)
- Create both horizontal and vertical spacing between plants. Avoid laddering understory plants; space trees and shrubs at one or two times their mature height.
- Periodically re-open gaps between plants as plants grow closer together.
- Consider expanding this zone up to 300 feet for steep slopes with flammable shrubs.

These guidelines/prescriptions are more appropriate than thick mulch (which can be flammable) and compost.

Coastal Area Plan Policies

- ☐ Section 30240 Environmentally Sensitive Habitat Areas, Adjacent Developments:
- ☐ ESHA shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- ☐ Development in areas adjacent to ESHA and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

CNPS generally supports these policies; however, additional comments will be provided later.

Oak Park Area Plan

- ☐ Policy 1.3.2.2: Discretionary development shall be located to avoid the loss or damage to healthy mature trees and sensitive plant species, including: Catalina Mariposa Lily, Wind Poppy and Santa Susana ~~Tar Plant~~Tarplant and other rare or endangered species.



This policy is good; however, a mechanism needs to be included to determine what a “healthy mature tree” is. The only commonly used tool available to arborists is focused on assessing trees in the landscape setting and emphasizing hazard risk to humans and property, not the biological and habitat functions mature trees have. Furthermore, this policy should be included in all Area Plans, not just the Oak Park Area Plan.

- ☐ Policy 1.3.2.3: Where applicable, developers shall be required to submit an updated Oak Tree Report, covering all oaks located within 50 feet of any proposed grading or construction. Trees, along with identifying number, health and aesthetic grades, shall be shown on the grading plan.

All assessments of trees should be conducted by a Certified Consulting Arborist, such as by the International Society of Arboriculture. All assessments of impacts to special-status plants should be performed by a California Certified Consulting (or Field) Botanist. A “County-approved qualified biologist” is not sufficient for the reasons previously described. This policy should apply to the entire county, and in each Area Plan.

- ☐ Policy 1.3.2.4: All discretionary development shall comply with the oak tree preservation and mitigation requirements of the adopted Oak Park Development Plans.

Agreed.

Ojai Valley Area Plan

- ☐ Policy 1.4.2.7: Discretionary development ~~which-that~~ would result in a significant adverse impact to a Locally Important Plant Community shall be required to replace such Locally Important Plant Community proposed for removal on at least a 1:1 basis and will be required to monitor the success of such planting for a minimum of seven years. In lieu of replacement, developers may dedicate without compensation, acreage containing such Locally Important Plant Community to a government agency or non-profit organization (e.g., a homeowners' association, a land conservancy) provided such entity will provide assurances that the dedicated Locally Important Plant Community acreage will be retained in a permanent undeveloped state. Such dedicated lands shall be at least two times the acreage of the Locally Important Plant Community which is proposed for removal. The form of such dedication may be fee title, conservation easement or other instrument approved by the County.

This policy has some good elements; however, it also has some flaws that need to be corrected. Including a “homeowners’ association” with NGOs that can receive lands for the purposes of mitigating impacts to Locally Important Plant Communities is flawed in that there are very few, if any, homeowners’ associations that have either adequate funds, interest, or expertise to properly manage such property. Some NGOs do, such as land conservancies and some government agencies; however, government agencies, such as the U.S. Forest Service, National Park Service, California Department of Parks and Recreation, to not accept lands with dead restrictions or conservation easements, which are common tools used to protect properties with sensitive resources.



Lake Sherwood/Hidden Valley Area Plan

- ☐ Policy 2.1.2.8: No blasting shall be permitted from February 15 through June 30 unless a field survey determines that there are no nesting raptors (other than kestrels) within 1/2 mile of the blasting site or unless studies are conducted to the satisfaction of Ventura County which indicate that blasting in an area will have no significant impact on nesting raptors.

CNPS supports this policy.

- ☐ Policy 2.1.2.9: A field survey by a qualified biologist shall be done prior to destruction or modification of any rocky outcrops. Mitigation measures recommended by the survey shall be implemented.

CNPS supports this policy; however, since this habitat type is very special, the field survey and impact assessment should be performed by a California Certified Consulting Botanist, not just a “qualified biologist” for which there is not clear, defined, and consistent set of criteria to determine their qualifications.

The County shall include the following new implementation program in the 2040 General Plan.

Implementation Program COS-X: Protection of Sensitive Biological Resources

The County shall update the Initial Study Assessment Guidelines, Biological Resources Assessment report criteria to evaluate discretionary development that could potentially impact sensitive biological resources with the following:

- ☐ The qualified biologist shall conduct an initial data review to determine the sensitive biological resources (i.e., special-status plant, special-status wildlife, sensitive habitats [e.g., riparian habitat, sensitive plant communities, ESHA, coastal beaches, sand dunes, other sensitive natural communities], wetlands and other non-wetland waters, native wildlife nursery sites, or wildlife corridors) that have the potential to occur within the project footprint. This will include but not be limited to review of the best available, current data including vegetation mapping data, mapping data from the County and California Coastal Commission, and database searches of the CNDDDB and the CNPS Inventory of Rare and Endangered Plants of California.

This is a good start; however, there is no mention of searches of databases and checklists for locally rare/Locally Important Species as part of this initial assessment. The Initial data review MUST include the potential for presence onsite or adjacent to the project site for locally rare species as well. Two resources are available to identify locally rare and uncommon native plants of Ventura County, the Ventura County Flora website (www.venturafloora.com) and the CNPSCI website (www.cnpsci.org). A search of Calflora online tool (www.calflora.com) will provide all reported occurrences of all native and naturalized plants using its “What Grows Here” tool. A search of the California Consortium of California Herbaria (CCH on the UC Jepson Herbarium website) will provide links to all accessioned and uploaded voucher specimens that have been deposited into a participating herbarium. Magney’s Venturafloora.com website provides a checklist of all known native and naturalized vascular known to occur in Ventura County as well



as numerous local plant checklists. These resources should be part of every botanist's pre-site visit review to maximize detection of special-status plants that may occur on the project site.

- ☐ The qualified biologist shall conduct a reconnaissance-level survey for sensitive biological resources within the project footprint (including proposed access roads, proposed staging areas, and the immediate vicinity surrounding the project footprint) to determine whether sensitive biological resources identified during the initial data review have potential to occur.

CNPS is extremely concerned that this part of the implementation program is flawed as the timing of the reconnaissance survey and the expertise of the "qualified biologist" are absolutely critical to determining the potential for determining whether there is potential for sensitive biological resources present. Many species are simply not detectable for long periods of each year and almost certainly would not be detected during a reconnaissance-level survey. All site botanical surveys should be floristic in nature, and timed to maximize the opportunities to detect the presence of sensitive species.

- ☐ If the reconnaissance-level survey identifies no potential for sensitive biological resources to occur, the applicant will not be subject to additional mitigation measures.

CNPS strongly objects to the element of the implementation program. There are too many instances when even more thorough site surveys have failed to detect sensitive biological resources to simply claim, through a reconnaissance-level survey, that there is no potential for sensitive resources to be present onsite. There are very few circumstances when such a conclusion can be made, and then they should only be made by a Certified Consulting Botanist for botanical resources and a Certified Wildlife Biologist for wildlife resources.

- ☐ If sensitive biological resources are observed or determined to have potential to occur within or adjacent to the project footprint during the reconnaissance-level survey, then the following measures shall apply:

Special-Status Species

- ☐ If special-status species are observed or determined to have potential to occur within or adjacent to the project footprint, a qualified biologist shall conduct focused or protocol-level surveys for these species where established, current protocols are available (e.g., Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities [CDFW 2018], Staff Report on Burrowing Owl Mitigation [CDFG 2012]). If an established protocol is not available for a special-status species, then the qualified biologist will consult with the County, and CDFW or USFWS, to determine the appropriate survey protocol.

CNPS basically supports this step. However, the consulting biologists should be Certified, not just a "qualified biologist".

- ☐ If special-status species are identified during protocol-level surveys, then the County shall require implementation of mitigation measures that fully account for the adversely



affected resource. When feasible, mitigation measures should adhere to the following priority: avoid impacts, minimize impacts, and compensate for impacts.

CNPS basically supports this step. However, the consulting biologists should be Certified, not just a "qualified biologist".

- ☐ If impacts on special-status species are unavoidable, then the project proponent shall obtain incidental take authorization from USFWS or CDFW (e.g., for species listed under ESA or CESA) prior to commencing development of the project site, apply minimization measures or other conditions required under incidental take authorization, and shall compensate for impacts to special-status species by acquiring or protecting land that provides habitat function for affected species that is at least equivalent to the habitat function removed or degraded as a result of project implementation; generally at least a 1:1 ratio. Compensation may include purchasing credits from a USFWS- or CDFW-approved mitigation bank or restoring or enhancing habitat within the project site or outside of the project site.

CNPS basically supports this step. However, the consulting biologists should be Certified, not just a "qualified biologist". Avoidance of the impact shall take precedence over other forms of mitigation as translocation of special-status species as mitigation is mostly experimental and what has been done has very low levels of success. For botanical resources, the impact assessment and mitigation plan and measures should be performed by a California Certified Consulting Botanist and by a Certified Wildlife Biologist for wildlife impacts.

These are some of CNPS's comments on the proposed GP update and DEIR; however, additional time is required (and previously requested) to be able to adequately review all the relevant documents and provide substantive and thoughtful comments and suggestions.

Please contact me via email at dmagney@cnps.org or by phone at 916/447-2677 ext. 205 if you have any questions.

Respectfully,

David L. Magney
California Certified Consulting Botanist #0001
ISA Certified Consulting Arborist #WE-7674
Ventura County Qualified Biologist
Rare Plant Program Manager
California Native Plant Society
2701 K Street, Suite 1
Sacramento, CA 95816

Downing, Clay

From: Malloy, Timothy <malloy@law.ucla.edu>
Sent: Thursday, February 27, 2020 4:53 PM
To: General Plan Update
Subject: Comments regarding the Ventura County General Plan EIR
Attachments: Malloy Comments.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Ms. Curtis,

Attached please find my comments. Thank you for your consideration.

Sincerely,

Tim Malloy

Timothy Malloy
Professor of Law
UCLA School of Law
Malloy@law.ucla.edu
310-794-5278

TIMOTHY F. MALLOY
PROFESSOR OF LAW

SCHOOL OF LAW
BOX 951476
LOS ANGELES, CALIFORNIA 90095-1476
Phone: (310) 794-5278
Email: Malloy@law.ucla.edu

February 27, 2020

Susan Curtis, Manager, General Plan Update Section
Ventura County Resource Management Agency,
Planning Division
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

Re: Comments Regarding Draft General Plan EIR

Dear Ms. Curtis:

I am writing to provide comments on the Draft General Plan EIR. The Background Report and the Draft EIR do not adequately address the impact of pesticide use in the agricultural sector. In its discussion of Environmental Impacts and Mitigation Measures, the Draft EIR identifies impacts associated with the use of pesticides as a concern. It describes the role of the County Agricultural Commissioner's office in evaluating the use of restricted materials but does not discuss the efficacy of the program beyond reference to the 2018 report of the Ventura County Grand Jury.¹ That Grand Jury report focused primarily on implementation of monitoring requirements, concluding that "the monitoring of fumigants like 1,3-D, methyl bromide and chloropicrin utilized in County agriculture demonstrates that levels of drift are below cumulative harmful levels."² The Draft EIR then concludes that pesticide exposure would not be addressed further.³ The draft Background Report likewise describes the restricted permitting process but does not evaluate its effectiveness.⁴

The Grand Jury report did not address the efficacy of the restricted materials permitting program. Two recent reports by researchers at UCLA evaluated the restricted materials permitting system. Those reports concluded the restricted permitting system throughout California, including in Ventura County, does not comply with two regulatory requirements established to implement the substantive requirements of CEQA. First, in approving the application of restricted materials, county officials fail to ensure the performance of meaningful alternatives analysis (AA), meaning systematic evaluation of safer alternatives such as more benign pesticides or cultural practices.⁵ Second, in assessing the impacts of restricted materials, county officials do not perform cumulative impacts assessment (CIA), defined as consideration of the additive or

¹ Draft Environmental Impact Report: Ventura County 2040 General Plan (January 2020) at 4.2-5 to 4.2-6.

² Ventura County Grand Jury, Final Report: Pesticide Monitoring Near Schools and Day-Care Centers (April 25, 2019) at 5.

³ Draft Environmental Impact Report: Ventura County 2040 General Plan (January 2020) at 4.2-5 to 4.2-6.

⁴ Ventura County 2040 General Plan Update Background Report (January 2020) at 9-39.

⁵ Timothy Malloy, *et al.*, *Governance on the Ground: Evaluating Pesticide Regulation in California* (2019).

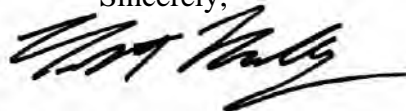
synergistic effects of exposing workers, bystanders and environmental receptors to multiple pesticides.⁶

The research focused on mixtures of three restricted materials — chloropicrin, Telone and metam salts — that are frequently used on high-value crops such as strawberries, tomatoes, tree nuts and stone fruits. The UCLA report demonstrated that their combined adverse effects can be greater because the materials may interact to increase damage to cells and can reduce the body's ability to remove or neutralize toxic substances. Using data from the Pesticide Research Institute, which collaborated with UCLA, the research examined the area near Rio Mesa High School in Ventura County from July 26 to August 3, 2013. The air modeling showed contemporaneous exposure to multiple pesticides at locations such as schools, day care centers and parks.⁷ The Ventura County Grand Jury report did not address the impact of cumulative exposure to mixtures of pesticides. Copies of the UCLA reports can be found at <https://law.ucla.edu/centers/environmental-law/emmett-institute-on-climate-change-and-the-environment/publications/governance-on-the-ground/> and <https://law.ucla.edu/centers/environmental-law/emmett-institute-on-climate-change-and-the-environment/publications/exposure-and-interaction/>

Given these identified deficiencies in the restricted materials permitting system, pesticide exposure should not have been excluded from further analysis in the Draft EIR. The EIR should examine how the existing deficiencies impact pesticide exposures and consider implementation of measures to mitigate these problems in the goals of the General Plan.

Thank you for your consideration. If you have any questions, please do not hesitate to contact me via e-mail at malloy@law.ucla.edu. (Please note that the comments represent my views only. Use of the UCLA letterhead is for identification purposes only.)

Sincerely,



Timothy F. Malloy

⁶ Timothy Malloy, *et al.*, *Governance on the Ground: Evaluating Pesticide Regulation in California* (2019); Virginia Zaunbrecher, *et al.*, *Exposure and Interaction: The Potential Health Impacts of Using Multiple Pesticides* (2016).

⁷ Virginia Zaunbrecher, *et al.*, *Exposure and Interaction: The Potential Health Impacts of Using Multiple Pesticides* (2016).

Downing, Clay

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Thursday, February 27, 2020 4:55 PM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Follow Up Flag: Follow up
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You have a NEW Comment

Name:

Derek McLaughlin

Contact Information:

760-579-1437 271 S Ventura Rd #299 Port Hueneme

Comment On:

Draft Environmental Impact Report

Your Comment:

Don't allow expansion of the port in Port Hueneme. I live about 1/3 of a mile east of it & often I & thousands of others are downwind of it. It already has far too much air pollution. At least make them have all large vessels plug into the grid upon arrival before any expansion is seriously considered or have to install excellent air pollution equipment on their exhaust, such as scrubbers like those on one of the Wallenius Wilhelmsen auto carriers.

Even without any thought of port expansion, cleaning up the port's air pollution & the ships while in port needs to be much further the list of county air pollution priorities. Many schools are downwind of the port & almost always people are downwind of it.

Quite putting so many new residential units in highly air polluted areas near freeways. Bad for the residents till we have much cleaner fleets of vehicles.

Try hard to avoid more of the coast being lined with rip-rap & seawalls. Keep the shoreline way more natural than that. Discussing when you go north of the city of Ventura. So much of the coast is rip-rap instead of natural beaches, dunes, wetlands, bluffs etc.

Regarding two things from Aug. 6, 2019 Board of Supervisor hearing, session I attended: one, Supervisor Parks idea on tree planting has a lot of good points though we must consider if more greenhouse gases will be produced than the trees make up for, by the transporting of water to water them & if water trucks will be used to water many of them. I've heard &/or read the Calif. Water Project is the largest user of electricity in the state & that's just one of the 3 large aqueduct systems that bring water to So. Calif. Water trucks should be electric, hydrogen or better, otherwise will also have air pollution from them. One fellow's 90 seconds comment that day addressed problem if the trees degrade the natural ecosystems of the county. I agree that's a serious concern though Parks said we should use drought tolerant trees which will help narrow the choice to natives & a few others. That's good. We could concentrate on replacing native trees where they have been removed with natives. I think eucalyptus tend to drop stuff on the ground that

prevent native plants from growing plus they blow over easy & aren't native & probably bad in fires.

2nd: I agree with all of supervisor Bennett's comments on climate change he mentioned on Aug. 6th. Not to downplay all the very important other considerations of the general plan, but I strongly feel that is the most important issue the county should address in the general plan.

Try to help insure we always have the Oxnard performing arts center

058 MAR 27 2021 11:27:26 AM 8:59

Mary Kathleen McGrath
c/o Hoffman, Vance & Worthington
1000 S. Seaward Avenue
Ventura, CA 93001

February 24, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

V
Sincerely,



Mary Kathleen McGrath

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 4:32 PM
To: Simmons, Carrie
Subject: FW: Comments on Ventura County General Plan DEIR

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit VC Citizen Access



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Patrick de Nicola <patrickdenicola@gmail.com>
Sent: Thursday, February 27, 2020 4:31 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Comments on Ventura County General Plan DEIR

Ventura County Resource Management Agency, Planning Division

Attn: Susan Curtis, Manager, General Plan Update Section

800 South Victoria Avenue, L#1740

Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it’s not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and

farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

Laura McAvoy

I support this letter-
Patrick de Nicola

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 4:35 PM
To: Simmons, Carrie
Subject: FW: Ventura County General Plan

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit VC Citizen Access



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Patrick de Nicola <patrickdenicola@gmail.com>
Sent: Thursday, February 27, 2020 4:33 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County General Plan

Susan Curtis,

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 4:38 PM
To: Simmons, Carrie
Subject: FW: Ventura County General Plan comments
Attachments: page3image3744272.png; page2image1668752.png; page3image3743440.png; page3image3766944.png; page1image1665632.png; page3image3766736.png; page4image1774048.jpeg

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Patrick de Nicola <patrickdenicola@gmail.com>
Sent: Thursday, February 27, 2020 4:35 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura County General Plan comments

Sanger Hedrick, Chair
Agricultural Policy Advisory Committee (APAC) County of Ventura
800 S. Victoria Blvd.
Ventura, CA 93003

Re: 2040 General Plan Environmental Impact Report (EIR)

Dear Mr. Hedrick and Honorable Members of APAC:

Thank you for the opportunity to provide comments following today's presentation by Ventura County Planning staff on t

There are several issues with the 2040 General Plan EIR that CoLAB believes will negatively impact the viability of local ag

Proposed mitigation measure AG-2: The County proposes that any project that either directly or indirectly results in the l
into perpetual agricultural preservation twice the total of the farmland loss. This mitigation measure is infeasible. Contra

Planning staff today at the APAC meeting, the California Environmental Quality Act (CEQA) requires that all mitigation proposed under Section 21061.1 defines feasible as “capable of being accomplished in a successful manner within a reasonable period of time” (*emphasis added*). All mitigation measures proposed in an EIR must be shown to reduce impacts

and an infeasible mitigation measure, by definition, cannot and will not reduce impacts.

The EIR does not provide evidence of any of the following:

1. 1) Whether there is sufficient land available for purchase/conservation easement for each farmland category;
2. 2) The cost per acre to purchase each category of farmland;
3. 3) The anticipated cost of establishing a conservation easement for each category of farmland;
4. 4) The anticipated cost associated with managing each category of farmland under a conservation easement;
5. 5) The anticipated cost associated with monitoring these mitigation parcels scattered throughout the County and who will bear that cost;
6. 6) Any information that could constitute a “plan” for management of farmland in conservation easements;

February 19, 2020



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 2 of 4

7. 7) An analysis of direct and indirect impacts caused by this mitigation measure (including impacts associated with increased urban-ag-interface);
8. 8) Whether the smallest possible mitigation acreage required will achieve the minimum to ensure viability of agricultural operations;
9. 9) Whether the proposed mitigation is in conflict with other ordinances and regulations, such as the County’s minimum lot sizes.

The County is already aware that this proposed mitigation measure is infeasible. On March 24, 2016, at a Local Agency Formation Study (LAFS) meeting, Supervisor Linda Parks attempted to establish an “Agricultural Mitigation Measure” through the LAFS project approval process. The measure would have required the 1-to-1 purchase of local farmland (half of what is proposed in the 2040 General Plan EIR) to replace farmland lost to proposed development. Ventura County Counsel, Michael Walker, informed both LAFS and Supervisor Parks that the measure did not meet the standard for economic feasibility, and, for that and other reasons, LAFS could not adopt Supervisor Parks’ proposal.

referenced a 2015 legal decision, *City of Irvine v. County of Orange*, in which the Court stated, “the sheer astronomical expense of the EIR that the purchase of an agricultural conservation easement is a non-starter.”

In addition to being infeasible, CoLAB does not believe that this mitigation measure will reduce impacts on agricultural land issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the increasing regulatory burden and competition for water resources, and increased compatibility conflicts from development.

Indirect Impacts

The EIR dismisses “indirect impacts” that will occur as a result of implementing the 2040 General Plan as “less than significant.”

Page 4.2-13 of the EIR states “AG-2.3 maintains the Right-to-Farm Ordinance to protect agricultural land uses from conflicts with residential development as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur in agricultural areas...These sections of the code protect farmers engaged in agricultural activity from public nuisance claims by the community, including Important Farmlands and farms less than 10 acres, from developments that would inhibit their ability to produce agricultural production.”

Page 4.2-17 of the EIR states: “Residential growth in areas nearby agricultural lands has the potential to result in land uses that are generally more sensitive and prone to conflict with adjacent agricultural land uses than commercial or industrial land uses such as residences and schools, nearby classified farmland can negatively impact both uses due to conflict including odors and agricultural machinery. The countywide Right-to-Farm Ordinance protects existing agricultural and farming operations from conflicts with residential development...**Therefore, the potential for conflicts would be minimal. This impact would be less than significant**” (*emphasis added*)

This is simply not true. Historic and recent County actions have shown that the County has and will continue to create new and a significant impact on existing agricultural



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 3 of 4

and farming operations because of conflicts attributed to residential development. The recent interim

urgency ordinance restricting hemp cultivation is one such example.

Contrary to statements made today by Ventura County Planning staff, an EIR, whether it is labeled as “programmatic” or “project,” must address the foreseeable consequences of the action that is proposed. For the 2040 General Plan EIR, the action proposed is the implementation of the 2040 General Plan within. Therefore, if the implementation of a policy in the 2040 General Plan will result in an impact, that impact must be addressed. The 2040 General Plan contains land use designation changes that will increase allowable housing density near agricultural land. It is CoLAB’s opinion that these changes will create more compatibility conflicts with normal farming operations. The impact of these compatibility conflicts is significant.

In 2014, the California Court of Appeal stated in a ruling that “[T]he fact that this EIR is labeled a ‘project’ rather than a ‘programmatic’ EIR as a program EIR ... does not by itself decrease the level of analysis otherwise required in the EIR. All EIRs must cover the same level of specificity of an EIR is determined by the nature of the project and the “rule of reason,” rather than any semantic label.”

It is CoLAB’s opinion that indirect impacts from increasing urban-ag interface are SIGNIFICANT and cannot be dismissed in the EIR.

Direct and indirect impacts of increased costs

The 2040 General Plan has policies that will increase the costs of normal farming operations. CoLAB believes that the most effective way to convert agricultural land to non-agricultural uses is to take active measures to allow farming to remain profitable. And even the most effective measures of farming reduces conversion of agricultural land in their discussion of the Williamson Act in Chapter 4.2 of the EIR.

But the County fails to analyze direct and indirect impacts of 2040 General Plan policies that will increase the cost of nor

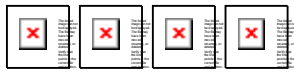
- Policy AG-5.2: Electric- or Renewable-Powered Agricultural Equipment. The County shall encourage and support renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment when
- Policy AG-5.3: Electric- or Renewable-Powered Irrigation Pumps. The County shall encourage farmers to convert to systems powered by electric or renewable energy sources, such as solar power, and encourage electric utility charges.

Direct and indirect impacts of increased competition for water resources

The County fails to evaluate the impact of increased competition for water resources caused by development and either the conversion of agricultural land or the loss of agricultural lands through the loss of topsoil.

The EIR states on page 4.2-3 that "...a reduction in available water resources for irrigation" is an example of impact to loss of topsoil from increased wind and water erosion.

But the County fails to analyze or propose mitigation measures to address this significant impact.



Ventura County Coalition of Labor, Agriculture and Business / 1672 Donlon Street, Ventura, CA 93003 / 805-633-2260 / info@colabvc.org

Page 4 of 4

APAC is the expert charged with advising County decision-makers on agricultural issues in Ventura County. And the County APAC about the actual issues that will impact farmland under the 2040 General Plan: lack of economic sustainability, the agriculture, increased competition for water resources, and increased compatibility conflicts from development.

CoLAB encourages APAC to provide guidance to the County on appropriate and effective mitigation measures to prevent non-agricultural uses. These may include:

1. 1) Strengthen the Right-to-Farm ordinance to prevent nuisance complaints from being used to justify setbacks or regulatory restrictions on normal farming practices;
2. 2) Expand the Land Conservation Act Program to include Open Space zoned properties that are engaged in agriculture and
3. 3) Protect agricultural land from urban-ag interface encroachment and compatibility conflicts by establishing land that will restrict the construction of bike paths, public trails, and sensitive receptors within 2000'

Thank you again for the opportunity to provide comments on this issue. We appreciate your consideration and

Sincerely,

Louise Lampara Executive Director



In support of this letter-
Patrick Chambers de Nicola

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 4:38 PM
To: Simmons, Carrie
Subject: FW: Comments to 2040 General Plan Draft EIR
Attachments: VC DEIR 2040 General Plan RenPet comments 2-26-2020.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Marc Traut <marc@renpetllc.com>
Sent: Thursday, February 27, 2020 4:35 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Maureen Carson <maureen.t.carson@gmail.com>; Steve Snow <snowlawcorp@snowlaw.com>
Subject: Comments to 2040 General Plan Draft EIR

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

See attached.

Renaissance Petroleum, LLC

P.O. Box 20456
Bakersfield, CA 93390-0456
Phone 661-324-9901 / Fax 661-324-9902

February 26, 2020

By: Email only

Ms. Susan Curtis
General Plan Update Manager
Ventura County Planning Division
800 S. Victoria Ave.,
Ventura, CA 93009

Re: Comments to Draft EIR to Ventura County General Plan

Dear Ms. Curtis,

I find redundancy and flaws in the description and analysis of the 2040 General Plan released January 13, 2020 (Draft EIR) that significantly impact potential policy changes. I will specifically address two proposed new policy items associated with Section 4.12, Mineral and Petroleum Resources.

1. On page 4.2-8, the Draft EIR is proposing “**new policy**” as described as COS-7.2 (revised page 4.12-18): Oil Well Distance Criteria. Under this new policy the *“County shall require that new discretionary oil and gas wells be sited a minimum of 1,500 feet from the well head to sensitive use structures which include dwellings, childcare facilities, hospitals, health clinics, and school property lines.”* In light of the “significant and unavoidable” impact that COS-7.2 (DEIA page 4.12-22) would have on hampering or precluding access to petroleum resources in Ventura County and potentially exposing the County to liability for damages associated with precluding landowners the right to enjoy the benefit of the development of their mineral resources, the County should suspend the inclusion COS-7.2 until the State legislature has had the opportunity to deal with the matter and develop policy (i.e. AB345) which most probably will be in conflict with any form of COS-7.2 that the County develops.

In the last several years there has been an abundance of information published by setback advocates concerning setbacks from oil and gas production facilities. Health related studies of populations living in the vicinity of an oil and gas production facility are not conclusive, and may be significantly biased by knowledge that a facility, previously unknown, is “discovered” to exist. From my own review of the published sources, none conclusively establish an appropriate setback distance and, because wells and facilities differ, not one size fits all. A steam injection related facility on the Oxnard Plain is significantly different from a light oil and gas facility on the Oxnard Plain; both oil and gas, but each has radically differing impacts. The former having the lingering smell of tainted rotten eggs and the latter no noticeable emissions impacts at all. The majority of the published studies used by both the Los Angeles County and California Council on Science and Technology that were cited as support in the Draft EIR were performed in areas outside of California (i.e. TX, CO, PA etc.) where the regulatory requirements for emissions from oil and gas facilities are significantly less stringent than those required in California, of which the APCD in Ventura County has been ahead of the pack for over a decade.

In conclusion, suspending action of a setback requirement until the State has generated policy is a prudent course of action given the uncertainty associated with the implantation of COS-7.2 and the potential liability that the County could be exposed to in the future. Lastly, existing Ventura County policy has not been demonstrated to be inadequate.

2. On page 4.2-8, the Draft EIR is proposing “**new policy**” as described as COS-7.7 (revised page 4.12-31): Conveyance for Oil and Produced Water. Under this new policy the “*County shall require new discretionary oil wells to use pipelines to convey crude oil and produced water, if feasible. Trucking of crude oil and produced water may only be allowed if the proponent demonstrates that conveying the oil and produced water via pipeline is infeasible. In addition, trucking of crude oil and produced water is allowed in cases of emergency and for testing purposes consistent with federal, state and local regulations.*” The current VCNCZO establishes oil development guidelines and states that “An applicant should use the guidelines in the design of the project and anticipate their use as permit conditions, unless the applicant can demonstrate that they are not feasible or practicable” (VCNCZO §8107-5.5.) and further states that “Pipelines should be used to transport petroleum products off-site to promote traffic safety and air quality” (VCNCZO §8107-5.5.5.a).

As stated in the above, the requirement to utilize pipelines to transport petroleum products is based on the feasibility and practicality of utilizing a pipeline as oppose to other sources of transportation such as trucking. Feasibility and practicality include the economic feasibility of a pipeline in support of a project. I am cited on page 4.12-23 of the DEIR analysis where my firm, Renaissance Petroleum, LLC (RenPet), provided Ventura County an economic evaluation for the interconnection of RenPet’s Cabrillo Oil Field to a pipeline to transport crude oil. The DEIR correctly summarizes the findings that such a project would be uneconomic.

Figure 4.12-4 of the Draft EIR is fatally flawed. The map purportedly displays “Major Oil Transmission Pipelines” in yellow and includes an orange “2 Mile Setback” in an effort to show the proximity of the majority of the oil production in Ventura County to crude oil pipelines. As a significant flaw, the lines shown as yellow on Figure 4.12-4 **include gas transmission lines**. These gas transmission lines represent the majority of the “Major Oil Transmission Pipelines” shown on the map. Please refer to the Grand Jury sourced map attached to my 2016 memo for an accurate presentation of crude oil transmission pipelines in Ventura County (see attached). There is significantly less access to a crude oil pipeline than Figure 4.12-4 and its setback distance suggests, and south of SR 101 there is very limited access. The implantation of COS-7.7 could strand significant crude oil resources located south of SR 101 to the financial detriment of the landowners in this area and Ventura County. As a result, what is characterized as a potentially significant impact (DEIR page 4.12-31) **should be elevated to a significant impact, based on the flawed map included in the DEIR as Figure 4.12-4.**

Thank you very much for your consideration of my comments.

Respectfully submitted,



Marc Wade Traut
President

Attachment MWT memo to file 12-22-2016

Memorandum

Renaissance Petroleum, LLC

PO Box 20456
Bakersfield, CA 93390-0456

Phone 661-324-9901 / Fax 661-324-9902

To: File

From: Marc Traut

Date: 12-22-2016



Subject: Cabrillo Oil Field Pipeline Options and Economic Feasibility

Ventura County (VC) Planning has requested that RenPet provide a discussion on the economic feasibility of transporting Cabrillo Oil Field (Cabrillo) crude oil from the field's Naumann Drillsite to market by way of a pipeline instead of by tanker truck. This request has been made to assess whether RenPet's activities at the Naumann Drillsite are consistent with the oil development guideline standards that are defined in the Ventura Non-Coastal Zoning Ordinance (VCNCZO) Section 8107-5.5. Importantly, the aforementioned reference states that these guidelines shall be "...applied whenever physically and economically feasible and practicable..." The guidelines include Section 8107-5.5.5.a that states "...Pipelines should be used to transport petroleum products off-site to promote traffic safety and air quality..." The following is RenPet's response to the request made by VC Planning.

Cabrillo crude oil has historically been transported by truck from the processing and storage hub for Cabrillo, which is the Naumann Drillsite located on Etting Road in the southern sector of the Oxnard Plain. From the Naumann Drillsite, the transportation route is by various VC roads north to SR 101 and then south to refineries in the Carson/Torrance area of southern California. Section 4.2.6 of the current version (10-20-2015) of the Ventura County General Plan, Public Facilities and Services Appendix (VC General Plan) provides a general discussion of the existence of oil pipelines in Ventura County. Not included in the current version of the VC General Plan is a map showing the location of these oil pipelines. Maps of oil pipeline locations had been included with earlier versions of the VC General Plan (i.e.1987). RenPet was able to locate a report prepared for the Ventura County Grand Jury in 2015 that included a map of oil pipelines within VC. The report was prepared to address concerns over pipeline safety within VC following the pipeline rupture and ensuing oil spill in Santa Barbara County in 2015. A copy of the pipeline map included with the VC Grand Jury report is attached to this memo. Oil pipelines are shown as solid red lines. Also attached to this memo is an enlargement of the same map that shows the location of oil pipelines in relation to the Naumann Drillsite.

The enlargement of the VC pipeline map shows the location of three oil pipeline interconnection possibilities that represent the nearest options for RenPet to interconnect Cabrillo to the existing oil pipeline system. These interconnections are considered possibilities. RenPet has never had contact with any of the pipeline owners to explore if pipeline access is feasible and to determine what the tariff would be for pipeline access and crude oil transport. Each of these three options is described in the following:

- Oil pipeline interconnection Option 1 is approximately 8.1 miles from the Naumann Drillsite. The interconnection point is at the intersection of Los Angeles Avenue (SR 118) and Santa Clara Avenue. The oil pipeline is owned and operated by Crimson and serves to transport crude oil east and ultimately south from the Ventura Avenue Oil Field area to Los Angeles area refineries.
- Oil pipeline interconnection Option 2 is approximately 6.6 miles from the Naumann Drillsite. The interconnection point is at the intersection of Santa Clara Avenue and Central Avenue. The owner of the pipeline is unknown; however that oil pipeline serves the Santa Clara Avenue Oil Field and interconnects with an oil pipeline that was formerly owned by Union Oil Company that transports crude oil eastwards along the Santa Clara River and ultimately south to Los Angeles area refineries.
- Oil pipeline interconnection Option 3 is approximately 10.6 miles from the Naumann Drillsite. The interconnection point is west of Harbor Boulevard in the vicinity of the Mandalay Beach generating plant. The owner of the pipeline is unknown; however that oil pipeline serves the West Montalvo Oil Field and appears to interconnect with the same oil pipeline that was formerly owned by Union Oil Company that transports crude oil eastwards along the Santa Clara River and ultimately south to Los Angeles area refineries.

All three of the oil pipeline interconnection options for Cabrillo that are shown on the attached enlargement face challenges. For Options #1 and #2, the largest hurdle is an undercrossing of SR 101. For options #1, #2 and #3, the Cal Trans, VC, and city of Oxnard road right-of-ways could be used for pipeline placement as the routes would use common segments of Etting Road, Rice Road, and Santa Clara Avenue. Interconnection Option #3 would use part of the same right-of-way as options #1 and #2, but would cut west through the city of Oxnard, and then into the VC Coastal Zone, and then north and west to the possible interconnection point in the vicinity of Mandalay Beach.

Based on pro forma cost estimates, the three oil pipeline interconnection options described above would cost 1.2 to 1.5 million dollars per mile. The estimated average cost for the three options is 11.4 million dollars for permitting, design, engineering, and construction. The necessary lead time for any of these options would be 4 to 5 years.

The economic feasibility of any pipeline project would be based on the differential savings between the cost of transporting Cabrillo oil by pipeline versus the cost of transporting Cabrillo oil by tanker truck after consideration of the capital investment of pipeline construction. RenPet pays approximately \$2.50 per barrel to transport its Cabrillo crude oil from the Naumann Drillsite to markets in southern California. An estimated tariff to transport Cabrillo crude via pipeline is \$0.50 per barrel. The estimated net savings realized by utilizing a pipeline for crude oil transport instead of truck transport is \$2.00 per barrel.

Cabrillo crude oil has been trucked from the Naumann Drillsite from inception of activities there in 1992. The highest rate of production achieved to date for Cabrillo was a rate of approximately 12,500 barrels of oil per month beginning in late 2010. The production rate declined rapidly. Cabrillo oil production is currently approximately 1800 barrels of oil per month. The exponential decline over the past five years is typical for the Cabrillo reservoir.

A discounted cash flow analysis was performed to determine the net present value (NPV) of a hypothetical Cabrillo pipeline project on a go forward basis, that is, from the current level of production forecasted out for 25 years. The assumptions are as follows:

1. Pipeline Capital Investment: \$11,385,000
2. Net Crude Transportation Savings per barrel: \$2.00
3. Discount Rate: 5%
4. Project life: 25 years; years 6-31
5. Future production decline: Exponential ($y=80221x^{-0.673}$)

The NPV of the pipeline project with the above assumptions is (\$10,512,490).

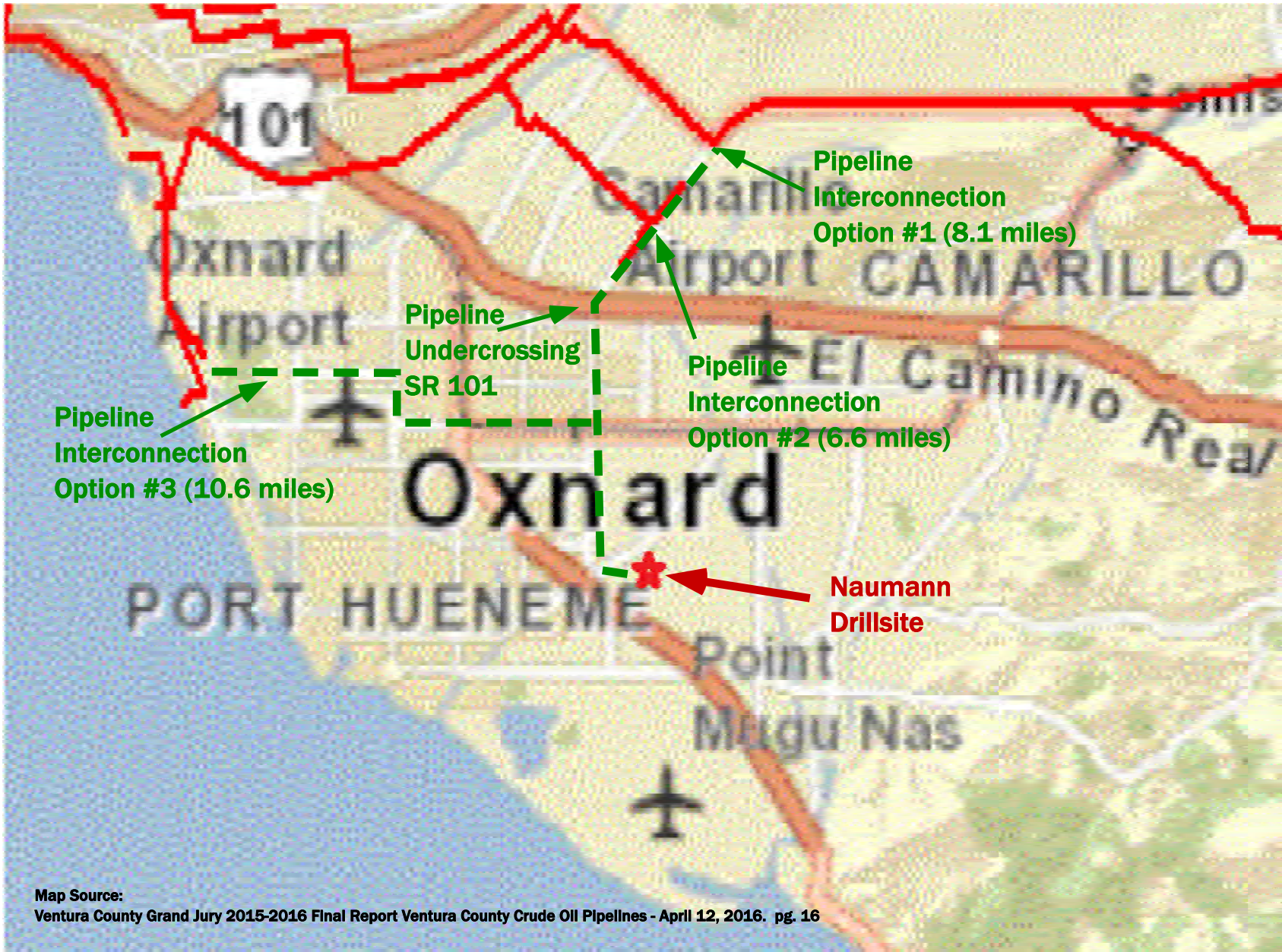
A second discounted cash flow analysis was performed to determine the NPV of a hypothetical Cabrillo pipeline project on the basis of a restart of the Cabrillo production rate achieved in 2011 as a starting point and then declining out for 25 years. The assumptions are as follows:

1. Pipeline Capital Investment: \$11,385,000
2. Net Crude Transportation Savings per barrel: \$2.00
3. Discount Rate: 5%
4. Project life: 25 years; years 1-25
5. Future production decline: Exponential ($y=80221x^{-0.673}$)

The NPV of the pipeline project with the above assumptions is (\$10,176,737). Note that there is a slight improvement in NPV over the first analysis, as a result of the addition of an early period of higher initial production rates. Nonetheless, the pipeline project is still completely uneconomic. To meet basic financial criteria for the project to be considered economically feasible, the NPV would have to be no less than \$0 which equates to a 5% rate of return on the original capital investment.

A third discounted cash flow analysis was performed as a sensitivity to the second case to determine the initial annual production rate required to drive the NPV to \$0. The assumptions were the same as the second case above. The initial annual production rate required to drive the NPV to \$0 is 1,305,808 barrels of oil. This hypothetical volume is more than 16 times the previous annual Cabrillo production rate peak of 80,221 that was realized in 2011. This sensitivity serves to demonstrate the extremely large volume of oil production required to begin to enter a discussion regarding a Cabrillo pipeline interconnection. Until other options become available, a pipeline project as described above to transport Cabrillo crude oil from the Naumann Drillsite by pipeline is not economically feasible or justifiable. As a result, RenPet's plan for Cabrillo and the Naumann Drillsite is to continue to transport Cabrillo crude oil by tanker truck.





Map Source:
Ventura County Grand Jury 2015-2016 Final Report Ventura County Crude Oil Pipelines - April 12, 2016. pg. 16

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 4:54 PM
To: Simmons, Carrie
Subject: FW: PL17-0141 VC 2040 General Plan Update
Attachments: CEQA_Memo_PL17-0141-GeneralPlan2040-WPD-Rvw-20200227.pdf

Follow Up Flag: Follow up
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Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Husted, Dawn <Dawn.Husted@ventura.org>
Sent: Thursday, February 27, 2020 4:50 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: CEQA <CEQA@countyofventuraca.onmicrosoft.com>
Subject: PL17-0141 VC 2040 General Plan Update

Susan, please see attached WPD Memo dated 2-27-20. Please let us know if you have any questions.

Thank you,

Dawn Husted
Management Assistant II
Watershed Protection District – Planning & Permits



800 S. Victoria Ave. / #1610
Ventura, CA 93009
P: 805.662-6882
[VCPWA Online](#) | [Facebook](#) | [Twitter](#)



WATERSHED PROTECTION
WATERSHED PLANNING AND PERMITS DIVISION
800 South Victoria Avenue, Ventura, California 93009
Sergio Vargas, Deputy Director – (805) 650-4077

MEMORANDUM

DATE: February 27, 2020

TO: Susan Curtis RMA Manager
County of Ventura

FROM: Sergio Vargas, Deputy Director, Watershed Protection District, PWA S.V.

SUBJECT: PL17-0141 Ventura County 2040 General Plan Update
Draft Environmental Impact Report
INCOMPLETE

Pursuant to your request dated January 13, 2020, this office has reviewed the submitted materials and provides the following comments.

PROJECT LOCATION:

All unincorporated areas within Ventura County

PROJECT DESCRIPTION:

The proposed project is a comprehensive update of the County of Ventura General Plan, also known as the 2040 General Plan. The 2040 General Plan will set forth the County's vision of its future and identify the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including but not limited to land use, climate change, agriculture, transportation, hazards, public facilities, health and safety, environmental justice, and resource conservation out to the year 2040. The County, as the lead agency, has prepared an EIR in accordance with CEQA. The County requests that interested persons review and provide comments on significant environmental issues, mitigation measures, and range of reasonable alternatives addressed in the EIR. The 2040 General Plan is anticipated to be adopted in 2020. With implementation of the 2040 General Plan, development may occur on or near site(s) identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5

APPLICATION COMPLETENESS:

INCOMPLETE from our area of concern.

COMMENTS:

Coastal Wave and Beach Erosion Hazards:

It is noted in the currently available documents that climate change will be incorporated into the General Plan Update. The existing general plan notes goals, policies, and programs related to coastal hazards and erosion. Consistent with the Policies of the California Coastal Commission the General Plan Update should consider expanding this section to address the hazards of sea level rise as it relates to discretionary development. The current policy: *“Discretionary development in areas adjacent to coastal beaches shall be allowed only if the Public Works Agency with technical support from the Ventura County Watershed Protection District, determines from the applicant’s submitted Wave Run-up Study that wave action and beach erosion are not hazards to the proposed development, or that the hazard would be mitigated to a less-than-significant level, and that the project will not contribute significantly to beach erosion.”* The General Plan Update and associated environmental documentation should address sea level rise as a component of the wave run-up and beach erosion hazard analysis.

References to the District’s Design Hydrology Manual:

Document references the 2006 version of this manual instead of the latest 2017 version. Please revise.

If you have any questions, please feel free to contact me by email at Sergio.Vargas@ventura.org or by phone at (805) 650-4077.

END OF TEXT

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 4:55 PM
To: Simmons, Carrie
Subject: FW: Ventura Water Comments on the Draft EIR for the VC 2040 GP
Attachments: 2.27.2020 Ventura Water Comments on the Draft EIR VC 2040 GP.PDF

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Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Monica Noeng <mnoeng@cityofventura.ca.gov>
Sent: Thursday, February 27, 2020 4:53 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Susan Rungren <srungren@cityofventura.ca.gov>; Peter Gilli <pgilli@cityofventura.ca.gov>
Subject: Ventura Water Comments on the Draft EIR for the VC 2040 GP

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Hi Susan,

We are respectfully submitting comments on the Draft EIR for the Ventura County 2040 General Plan. Please see the attached correspondence. If you have any questions, let me know.

Thank you,

Monica Noeng
Environmental Services Specialist
Ventura Water
Phone: (805) 652-4508
mnoeng@venturawater.net
www.venturawater.net



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February 27, 2020

Susan Curtis, General Plan Update Manager
Ventura County Resource Management Agency
Planning Division
800 South Victoria Avenue
L #1740
Ventura, CA 93009-1600
Email to: Susan.Curtis@ventura.org

Subject: **Ventura Water Comments on the Draft Environmental Impact Report for the Ventura County 2040 General Plan**

Dear Ms. Curtis:

Thank you for the opportunity to comment on the Draft EIR for the Ventura County 2040 General Plan dated January 13, 2020. The City of Ventura's water and wastewater department, Ventura Water, has two comments on the Utilities section under Impact 4.17-4.

Comment #1

As discussed in the Utilities section under Impact 4.17-4, the City of Ventura understands that the 2040 General Plan could potentially adversely impact available water supplies. The City currently has at least two ordinances in place to mitigate this impact in line with the proposed mitigation measure UTL-1 in the Draft EIR.

The Water Rights Dedication, Water Resource Net Zero Fee, and Water Resource Net Zero Requirements (Ordinance 2016-004) was adopted to ensure that new development does not adversely affect the water supply or water supply reliability of the City's existing customers and/or approved new development. The Ordinance requires subject projects to offset new or increased water demand through several compliance options. The fee proceeds shall be used to acquire additional water rights or develop water resources for new potable supplies for use by the City. The Ordinance is codified in San Buenaventura Municipal Code Chapter 22.180.

In addition, the City has a policy on water connections outside of City limits but within the City's Sphere of Influence per San Buenaventura Municipal Code Section 22.110.055, Water Connections Outside City Limits.

Comment #2

Ventura Water suggests striking the following language from Mitigation Measure UTL-1:

Implementation Program WR-X: Demonstrate Adequate Water Supply during Normal, Single-Dry, and Multiple-Dry Years

Water-demand projects (as defined in Section 15155 of the State CEQA Guidelines) that require service from a public water system shall prepare a water supply assessment prior to project approval. If the projected water demand associated with the project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment must address the public water system's total projected water supplies available during normal, single-dry, and multiple-dry water years for a 20-year projection. The assessment shall describe if the new water service will be sufficiently met under this 20-year projection. The water supply assessment shall be prepared to the satisfaction of and approved by the governing body of the affected public water system and the County. ~~If, as a result of its assessment, the public water system concludes that its water supplies are, or will be, insufficient, the public water system shall provide to the County its plans for acquiring additional water supplies.~~ A water-demand project that includes a new water service from a public water system shall not be approved unless adequate water supplies are demonstrated.

We think this sentence should be removed for two reasons. First, the water supply assessment should already include a discussion of the public water system's plans to acquire additional water supplies, to the extent that discussion is relevant or necessary for the water-demand project. Second, if the water supply assessment concludes that adequate water supplies are not available for the water-demand project, then the burden should be on the applicant to demonstrate additional water supplies available for the water-demand project – the burden should not be on the public water system.

Conclusion

If you have any questions about the above, please let us know. We also plan on submitting comments on the Public Review Draft 2040 General Plan by the March 30, 2019 deadline.

Sincerely,



Susan Rungren
General Manager
Ventura Water

cc: Peter Gilli, City of Ventura - Community Development Director

Simmons, Carrie

From: Erik Fruth <efruth@callutheran.edu>
Sent: Thursday, February 27, 2020 4:59 PM
To: General Plan Update
Subject: Comments on Draft General Plan
Attachments: draft.General.Plan_comments_Fruth.docx

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Dear General Plan team,

My name is Erik Fruth, I'm a Camarillo resident and a MSc student of Environmental Planning. I'd like to submit some comments on the Ventura County Draft General Plan ("Public Review Draft 2040 General Plan" on <https://vcrma.org/vc2040.org/review/documents>).

Please find my comments in the attached document.

Thank you,

Erik Fruth (he/him)

MSc Student in [Environmental Planning](#) | *Technische Universität Berlin*
efruth@callutheran.edu / esfruth@protonmail.com (secure) / +1 805 657-9378 (cell) / +856 20 95 466575 (WhatsApp)

While I appreciate the inclusion of environmental justice as a cross-cutting issue that is addressed throughout the various sections of the Plan, I see opportunities in nearly every written goal/objective to make social justice, environmental justice, and inclusivity a stronger focus. I've only examined Section 10 due to personal time constraints, but would likely have many comments on other sections if there are public comment periods in the future.

Within Section 10 on Economic Vitality, I suggest the following edits:

- EV-1.2 should read "The County shall prioritize investment in infrastructure, services, safety net programs and other assets that are critical to future economic vitality, including public safety, healthcare, library services, water supply and quality, transportation, energy, and environmental resources. This investment shall **improve** equity in investment opportunities to designated disadvantaged communities, including designated Opportunity Zones under the federal Tax Cuts and Jobs Act of 2017. The focus of these efforts shall be to improve social equity and opportunity for all. (FB, SO) [Source: VCEVSP Policy A.3, E. 1, modified]"
- EV-1.3 should read: "The County shall continue to work with cities and community organizations to implement, **assess, and improve** best practices, pursue funding to improve housing affordability, and implement programs that **a) reduce the cost of housing in order to retain and attract employers, employees, and young graduates and professionals, b) improve the number of affordable housing units accessible to the most vulnerable/disadvantaged communities, and c) meaningfully address the underlying causes of unaffordable housing in Ventura County.** (MPSP, IGC) [Source: VCEVSP Policy F.1, modified]"
- EV-1.4 should read: "The County shall promote **socioeconomic inclusivity and** business-friendliness in the regulatory and permitting environment throughout Ventura County through collaboration **(especially with existing local organizations that serve vulnerable/disadvantaged groups)**, exchange of ideas and best practices, improvement in clarity and efficiency in the permitting process, taking advantage of opportunities for streamlining in the development process, **promoting cooperative and nonprofit business models and supporting their growth in Ventura County, and improving** consistency in policy and practice among cities and the County. (RDR, IGC) [Source: VCEVSP Policy F.3, modified]"
- EV-1.6 should read: "The County shall work with local chambers of commerce, countywide economic development organizations, and businesses to support the appropriate **and socially inclusive expansion of the local economy that improves the standard of living for the most vulnerable/disadvantaged communities in Ventura County first and foremost and also leads to the creation of environmentally sustainable and cutting-edge jobs for long-term economic prosperity,** particularly in Existing Communities and unincorporated Urban Areas where zoning allows. (MPSP, JP) [Source: New Policy]"
- EV-1.7 should read: "The County shall strive to attract industries based on existing and projected workforce demographics, educational attainment, skills, and commute patterns, and which provide opportunities to residents living in designated disadvantaged communities. **The County shall equip designated disadvantaged communities with the educational attainment, skills, and commute patterns that allow them to be highly competitive in the industries that develop in Ventura County in the future.** (MPSP, JP) [Source: New Policy]"
- EV-1.8 should read: "The County shall coordinate and work with cities in the county to enhance the efficiency of development of remaining vacant commercial and industrial sites and encourage infill and revitalization of underutilized sites **so that nearby neighborhoods become more walkable, green, cohesive, and affordable.** (MPSP, IGC) [Source: VCEVSP A5]"
- EV-1.9 should read: "The County shall **facilitate** the development of a range of commercial uses in urban areas and Existing Communities, where zoning allows, that **not only** fulfill the daily needs of residents and visitors **but also make the communities more walkable, cohesive, affordable, and vibrant.** (MPSP, JP) [Source: Existing GPP Goal 3.4.1.1, modified]"
- EV-1.10 should read: "The County shall strive to attract and retain high-quality, full-service, **affordable, and culturally appropriate** grocery stores and other healthy food purveyors **to fill local**

needs in Existing Communities and adjacent urban areas, particularly in underserved areas. (MPSP, JP) [Source: New Policy]"

- EV-3.2 should read: "The County should promote and expand existing small business and women-owned business development programs by identifying partnerships between industry and educational organizations, and identifying potential mentoring, job training, networking, and professional development opportunities between these organizations and by supporting and promoting efforts of the Small Business Administration to provide technical assistance to small business owners and employees through classes and assistance in the areas of business management, marketing, and legal assistance. The County should allow entrepreneurs to use government property or facilities to test new products and services that are beneficial to the public good for micro enterprises of five employees or fewer to encourage economic and social opportunities in low-income areas. (IGC, JP) [Source: New Policy]"
- EV-3.5 should read: "The County shall support local efforts to attract firms in key industries from outside the county that have a history of positive social, environmental, and economic charity. The County shall facilitate the entrepreneurial development of new firms and cooperative business models within the county as well as support the necessary training to develop entrepreneurship and innovation in the local workforce. (IGC, JP) [Source: VCEVSP Strategy C, modified]"
- EV-4.2 should read: "The County shall support the development of industries and businesses that promote and enhance environmental sustainability, greenhouse gas reductions, decarbonization, climate change adaptation, resiliency, and renewable energy generation, storage, and transmission, including solar power, wind power, wave energy and other appropriate renewable sources. The County shall promote the efforts of existing businesses that meet green business criteria and encourage them to become more diverse and inclusive in their daily operations, organization, and local impact; provide job training in green building techniques and regenerative farming and trainings on starting social enterprises built on cooperative business models; and strive to build green technologies into and decarbonize existing government buildings and facilities. (MPSP, JP) [Source: New Policy]"
- EV-4.3 should read: "The County shall encourage the development and expansion of businesses and business models (eg. cooperatives) that advance social equity, inclusivity and fairness, environmental quality, and economic sustainability, as well as capitalize on key industry strengths. Economic sustainability includes planning and preparation for disaster response and long-term resiliency of businesses and economic assets in the county. (JP) [Source: New Policy]"

Within the Climate Action Plan, I see opportunities to make Ventura County a stronger leader in both reducing our contribution to the climate crisis as well as addressing social/environmental injustice. One urgent need in the Climate Action Plan is to establish a framework for making the implementation (and success) of the Plan observable and measurable so that the public can hold polluters and public officials accountable if they fail to meet the goals established in the Plan – that framework should include some details on the specific indicators chosen to measure implementation/success of the Plan. I would suggest that the planners and decision-makers working on this update establish close contact with CFROG (Climate First: Replacing Oil and Gas) to set up an appropriate framework. The framework should also have a robust public outreach component where local stakeholders are invited into the assessment and monitoring of the Climate Action Plan on an iterative basis. The public outreach component of the monitoring protocol should center around the needs of Ventura County's vulnerable, disadvantaged, and/or historically marginalized communities and meaningfully include their voices.

Simmons, Carrie

From: Chris Tull <ctull17@gmail.com>
Sent: Thursday, February 27, 2020 6:32 PM
To: General Plan Update
Subject: Please support a dedicated county bike network

Follow Up Flag: Follow up
Flag Status: Flagged

Please support the Santa Clara River Loop trail and the Santa Paula Branch Line bike/ped trails to help form a bike/ped backbone throughout our county.

Thank you,

--
Christopher Tull
Oxnard, CA 93030

Simmons, Carrie

From: Jack Breuker <jack.vcei@gmail.com>
Sent: Thursday, February 27, 2020 8:46 PM
To: General Plan Update
Subject: Forwarding General Plan Feedback

Follow Up Flag: Follow up
Flag Status: Flagged

A friend of mine sent the following comments but the email bounced back. I am re-sending it on his behalf. Commenters name is "Walt Beil". His email is docdoggr@gmail.com. Please respond to him.

27 February 2020

Ventura County Resource Management Agency
800 S. Victoria Ave
Ventura, CA 93009

To whom it may concern:

My name is Walt. I have worked in the local oil and gas industry for many years. I am writing because many local oil and gas employees have expressed deep concern about the overall direction that the 2040 General Plan Update appears to be taking. I have reviewed the Draft Environmental Impact Report (DEIR) document and believe it unfairly targets the industry with the goal of shutting down local oil and gas production completely.

The DEIR recognizes the importance of the oil and gas industry when it states, "The County shall promote the extraction of mineral resources locally to minimize economic costs and environmental effects associated with transporting these resources." With this in mind, it is troubling that the DEIR then proposes several new policies that would further restrict local production, therefore jeopardizing the livelihoods of hundreds of workers in our industry.

Policy COS-7.8, for example, essentially prohibits oil and gas producers from flaring except in emergency cases. Flaring is an industrywide practice that operators use to burn off excess natural gas that cannot be captured or used in other ways. It is used as a safety practice used to safeguard workers on site and preserve local air quality. It is the most environmentally friendly alternative to releasing excess natural gas into the atmosphere or back into the ground. The alternatives do not adequately explain the impacts of restricting flaring.

The DEIR acknowledges that the policies included in the General Plan Update would result in the construction and operation of new pipelines (Page 4.8-38). The DEIR does not go far enough to show that construction and operation of new pipelines for the conveyance of oil, gas and produced water is feasible and will result in GHG emissions reductions. In addition, the policies promoting new pipelines are contradictory to proposed policies related to fault lines.

The General Plan is critical to the county's future success. API Coastal Chapter firmly believes that it should be used to strike a balance between economic vitality and environmental protection, not unfairly regulate the oil and gas industry out of the county.

With regards,

Walt Beil
Ventura

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, March 2, 2020 8:48 AM
To: Simmons, Carrie
Subject: FW: Ventura County Planning

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit VC Citizen Access



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From: Zaragoza, John <John.Zaragoza@ventura.org>
Sent: Friday, February 28, 2020 4:01 PM
To: Prillhart, Kim <Kim.Prillhart@ventura.org>; Ward, Dave <Dave.Ward@ventura.org>; Curtis, Susan <Susan.Curtis@ventura.org>
Subject: FW: Ventura County Planning

FYI

From: Michael Hayes <michael@michaelhayes.la>
Sent: Thursday, February 27, 2020 3:13 PM
To: Bennett, Steve <Steve.Bennett@ventura.org>; Parks, Linda <Linda.Parks@ventura.org>; Long, Kelly <kelly.long@ventura.org>; Supervisor Huber <Supervisor.Huber@ventura.org>; Zaragoza, John <John.Zaragoza@ventura.org>; cheitmann@cityofventura.ca.gov; mlavere@cityofventura.ca.gov; srubalcava@cityofventura.ca.gov; jfriedman@cityofventura.ca.gov; lbrown@cityofventura.ca.gov; citymanager@cityofventura.ca.gov
Subject: Ventura County Planning

Hello Ventura leaders,

My name is Michael Hayes, and over the weekend I had the familiar, yet infrequent pleasure of spending time in Ventura county; coming from what can often seem like the other side of the state (Los Angeles) Ventura county isn't always conveniently accessible.. I wish I could more easily and regularly enjoy the splendors of Ventura county; but that's not the point of this message. Unfortunately, the motivation for this message is about my concern with what I had seen over the weekend.

Nobody wants unsolicited advice or critique, so I apologize for being obtuse, if not flat-out disrespectful; but I feel so strongly about these issues that it really frustrates me to think about the colossal planning mistakes that have taken place in America over the past 60 years, mistakes that I really *really* hope Ventura will not continue to make. That grand failure of American society is truly senseless and completely vapid suburban sprawl.

Without making this some sort of Manifesto... a brief recap of the default planning guidelines introduced in the late '50s. Sprawl has negatively affected the health of, now car-dependent, Americans; the air quality of the, now-smog filled, skies, the foundation of low density residential creates an exhaustive network of financially burdensome infrastructure and public services without an adequate tax base to properly maintain itself; siphoning funds from more essential civic services. Sprawl prohibits the ability to provide affordable housing in job rich areas, it disconnects people from a sense of place and it separates American's into political factions. Controversial or looney as it may seem, I truly believe SPRAWL is the single largest cause of a deflated American Spirit and the harbinger of collapsed American Ideals.

Anyone reading this message that has been in California for at least ~20 years has witnessed the insatiable consumption and the destruction of such beautiful and fertile land. In my short lifetime, I've seen Oxnard, Camarillo and Ventura transform from agrarian paradises and small town havens into an extension of West Covina or San Bernardino. Farms, Bungalows, Main streets, paved over and replaced by beige stucco boxes, banal shopping centers and other characterless vestiges of suburban sprawl. Already frustrated beyond words about the approval and early stage construction of LA County's "Newhall Ranch" I drove along the 126 to see a handful of new Riverside County-esque subdivisions, tracts of homes, the *United States of Generica*-style shopping centers that follow them, freeway-width "roads" and of course the suffocating and unavoidable traffic that comes in thereafter.

I spent an entire day just walking around Fillmore and Santa Paula enjoying the "small town" feel, talking with shop owners, all of whom couldn't believe how the area was changing for the worse. The city and county websites are full of pictures of the area's rich agricultural past, "Last Small Town..." yet at the same time, you're willing to pave over that history and beauty with some garbage cheap homes from KB Homes or Lennar?

I know Ojai as being the quintessential success story for staving off the plague of sprawl and its associated "Generica" monotony. It's a destination within the region precisely because it's different, it's charming, it's human-oriented, it embraces its agricultural roots. So, why isn't the rest of the county following in those footsteps? What is the recourse for city and county to prevent the spread of sprawl and the destruction of the otherwise beautiful landscapes? And most importantly, is this even a priority for leadership?

If this type of "growth" is at all a concern, there are really only 2 options. A) halting all growth or B) changing the way in which we grow. A moratorium would seem like the easy route, but a foolish decision in the long run. The real solution is hidden in planning guidelines of yesteryear; the solution is in higher density, village-like, transit oriented communities. Places that are walkable and are rich with character, individuality and some distinguishable uniqueness. A convenient and manageable concentration of people that create an identity and a community. Luckily for Ventura county, its cities and towns already possess many of these qualities, I'd hope that they expand on that identity, rather than erase it.

The foundation for any *great* city, town or village is formed by its accessibility and mobility. After 60 years of planning exclusively for car mobility, we've witnessed its major shortcomings. If there were one piece of transformative infrastructure that could drastically improve access, convenience, quality of life, economic opportunity and preserve open space in Ventura it would be reactivating the rail ROW from Ventura to Piru and operating a Light Rail (perhaps similar to San Diego's Sprinter or LA's E line) this vein could have the capacity to alleviate transit woes for thousands of residents / commuters and contain and concentrate manageable growth around stations allowing for characterful neighborhoods to flourish.

There is so much to love and enjoy about Ventura County and the cities within it, I'd hope those characteristics that make it lovable are preserved, cherished and expanded upon, not dismantled and paved over like the rest of southern California.

All the best and thank you for your commitment to bettering the lives of the people you represent!

-m



REC'D FEB 27 2020

City of Camarillo

601 Carmen Drive • P.O. Box 248 • Camarillo, CA 93011-0248

February 21, 2020

Ventura County Resource Management Agency Via E-Mail: GeneralPlanUpdate@ventura.org
Planning Division
Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

RE: Response to Ventura County 2040 General Plan EIR (SCH No. #2019011026)

Dear Ms. Curtis:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (EIR) for the Ventura County 2040 General Plan that has been prepared by the County of Ventura for public review pursuant to the California Environmental Quality Act (CEQA) Guidelines. After reviewing the EIR, we submit the following comments for your consideration.

Agricultural Land and Buffers to Protect Sensitive Receptors

City's Position: The EIR should require buffers around City jurisdictions and require farming techniques that will protect existing sensitive receptors from strong, unpleasant odors associated with hemp farming.

Reasoning: The EIR only addresses agricultural odors from the standpoint of ensuring that new sensitive receptors are not placed in proximity to existing agricultural uses without providing disclosure to new uses and that it does not limit the right to farm. The EIR should address odor impacts associated with types of agricultural crops – and how they are farmed – that may have a substantial odor impact on existing sensitive receptors. The County should ensure that existing sensitive receptors will not be adversely impacted based on the introduction of new types of crops being farmed such as industrial hemp.

Very Low Density Residential (VLDR)

City's Position: To ensure that development in the County adjacent to development in the City is compatible, the VLDR designation should have a maximum density of three units per acre.

Reasoning: The General Plan Land Use Element proposes a land use category of predominantly Very Low Density Residential (VLDR) within the Camarillo Sphere of Influence north of the City limits. Page 2-21 of the County Land Use and Community Character Element indicates this designation would have a maximum density of four dwelling units per acre with a minimum lot size of 10,000 square feet. This is in conflict with Page 2-36, which indicates the VLDR designation has a maximum density of three dwelling units per acre. The City of Camarillo

General Plan Land Use Element designates this area in the Sphere of Influence, north of the City limits, as Rural Density Residential (2.5 dwelling units per acre). This is consistent with the designation of most of the land that is in the City adjacent to the City boundary line, which is designated Rural Density Residential.

Local Infrastructure

City's Position: Policies in the County General Plan should ensure new development on County land within and adjacent to the City Sphere of Influence is compatible with surrounding land uses in the City and that the use will not adversely impact local infrastructure.

Reasoning: The increase in density and 10,000 square foot minimum lot size in the VLDR designation adjacent to City limits within the City's Sphere of Influence needs to be analyzed in the EIR with respect to land use compatibility with adjacent development within the City, and impacts on City utilities and streets, as these areas may be annexed and connected to City infrastructure.

Wireless Communication Facilities

City's Position: The General Plan should encourage cooperation between the County and Cities for the proper placement and design of wireless communication facilities.

Reasoning: The City has provided comments to the County to oppose the placement of an 80-foot tall mono-Eucalyptus along Pleasant Valley Road at Bridgehampton Way, which divides the City and County boundaries. Pleasant Valley Road is a designated scenic corridor in the Camarillo General Plan Community Design Element and the proposed wireless facility would not be consistent with the City General Plan. The County should have policies discouraging new macro wireless facilities adjacent to City boundaries, unless they are stealth and consistent with height structures in the surrounding area. The County General Plan should have policies to ensure new wireless facilities are properly sited and designed to avoid land use incompatibility; that it will not be inconsistent with the City General Plan; and that it will not result in an adverse aesthetic impact.

SCAG Data Forecasts

City's Position: The County should use data consistent with the SCAG population forecasts.

Reasoning: Table 5-2 – Forecasted Growth of Incorporated Cities within Ventura County indicates Camarillo's population to be 79,900 in 2040. The City has verified that SCAG has incorporated the data provided to SCAG during the Local Input Process for the 2020 RTP/SCS. The population forecasts that are being used by SCAG are: 75,240 in 2035 and 76,093 in 2045.

Thank you, once again, for the opportunity to comment.

Respectfully,



Dave Norman
City Manager

REC'D FEB 27 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually

impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely,



Mary Ellen Gravel
President, Elkins Royalty Group

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, March 2, 2020 8:49 AM
To: Simmons, Carrie
Subject: FW: 2040 General Plan

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740 Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org For online permits and property information,
visit VC Citizen Access

Pursuant to the California Public Records Act, email messages retained by the County may constitute public records
subject to disclosure.

-----Original Message-----

From: Martha Branson <marthab876@gmail.com>
Sent: Thursday, February 27, 2020 5:08 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan

Dear Ms Curtis,

I think the board's assessment of Ventura County's vulnerability is out of date. In 2018 the IPCC released a revised report of the climate crisis and the projection is far more dire. We are already suffering the effects of global warming and we have only a few years to make a difference in our planet's fate. You have plans that extend to 2040, 2050, and 2090! This will be far too little far too late. I believe you should take a much stronger approach to your net zero emissions goals, and I would like to see real quantifiable plans explaining how you will reach net zero.

I believe you have a responsibility to begin shutting down the fossil fuel industry in our county. I do understand how costly it will be, but I also understand the economic cost and the cost to human lives, and to our planet if you allow the drilling to continue.

Sincerely,

Martha Brown

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, March 2, 2020 8:49 AM
To: Simmons, Carrie
Subject: FW: EIR review
Attachments: RMA planning letter 022720.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
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For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Heather Wise <heatherwise8302@hotmail.com>
Sent: Thursday, February 27, 2020 5:05 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: EIR review

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Attached please find my letter after reviewing parts of the County's EIR for the General Plan. Please submit them for review.

Regards,
Heather Gilchrist-Wise

Heather A. Gilchrist-Wise
8302 Sulphur Mountain Road
Ojai, CA 93023

February 27, 2020

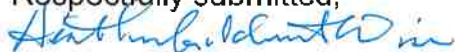
Attn: RMA Planning Division
General Plan Update
800 Victoria Ave., L #1740
Ventura, CA 93009-1740
Susan.Curtis@ventura.org

Dear Planning Division:

In reviewing the 2040 General Plan Environmental Impact Report (EIR), I have some grave concerns that were not addressed and will affect many people in this county. I have listed some below for your review and response:

1. Wildfire risk – EIR states that “managing fuel through activities such as vegetation removal and controlled burns, the County and other agencies would be directly reducing the chance of wildfire as well as fuels that would feed wildfires. This statement does not take into regard that it is in *direct opposite* of County Policies COS-3.2, COS-1.15, Implementation Program COS-H, Implementation Program COS-C and the recent restrictions on brush removal in the Wildlife Corridor. All of these Policies and restrictions will increase wildfire risk and in order to comply with the EIR, must be removed or re-written.
2. CEQA requires that indirect impacts be analyzed: Specifically, the impact on agriculture from the buildout planned in the 2040 General Plan. As the population grows, there will be more interactions with farm land. Presently, in most cases, this leads to more costs for the farmer and can cause a negative effect on this industry in this county.
3. The EIR states that the policies in the 2040 General Plan will decrease water supply for irrigation, but the County has not evaluated this impact. Reducing water supply for irrigation, or even increasing cost to obtain water, will remove ag lands from production which will affect the County significantly.
4. The EIR also does not address the impact of the General Plan that will require ag to use all electric equipment and pumps. This is very expensive and will impact this industry considerably.
5. The General Plan does not seem to take into effect that agriculture is a major industry in the County and will affect the County's revenues if it does not analyze the negative effects that these new policies will have on this industry.

Respectfully submitted,


Heather Gilchrist-Wise

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 8:08 AM
To: Simmons, Carrie
Subject: FW: Comments on Ventura County General Plan DEIR
Attachments: Ventura County General Plan Letter_Taylor.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



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From: Kasey Taylor <ksea.taylor@gmail.com>
Sent: Thursday, February 27, 2020 8:07 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Bill <william.m.taylor87@gmail.com>
Subject: Comments on Ventura County General Plan DEIR

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Hi Susan,

Please see attached letter concerning the Ventura County General Plan DEIR.

Thank you!
Kasey and William Taylor

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I am a part of the McLoughlin Family. We have been farming in Ventura County for approximately 150 years. We currently own 300 acres of agricultural property off of Olivas Park Road in the County of Ventura near the Ventura Marina on Harbor Rd, in proximity to the City of Ventura.

The McLoughlin family has farmed this land and other parcels for generations going back to 1863. It remains our desire to continue this legacy, however, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. That, however, is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. The DEIR, however, never analyzes the loss of farmland resulting from these changes in infrastructure – it's not even mentioned as a possibility in the DEIR.

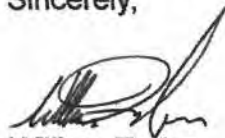
Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no "substantive" change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. No further details beyond this conclusory statement are provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. It's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

Sincerely,



William Taylor



Kasey Taylor

REC'D FEB 27 2020

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors

Attn: RMA Planning Division

General Plan Update

800 Victoria Avenue L#1740

Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value

and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo.

These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely,



Simmons, Carrie

From: Curtis, Susan
Sent: Monday, March 2, 2020 8:49 AM
To: Simmons, Carrie
Subject: FW: VC2040 General Plan Input Re Climate Change Mitigation

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
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From: Diana Kubilos <kubilos.d@gmail.com>
Sent: Thursday, February 27, 2020 5:03 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: VC2040 General Plan Input Re Climate Change Mitigation

Dear Ms. Susan Curtis,

As a member of the Ventura County Climate Hub, I have signed my name to the very thorough petition sent by the organization regarding the climate change mitigation- related components of the VC2040 Draft General Plan (and EIR). I also wanted to add a emphasize a few more points personally, covering some core areas regarding the urgent and vital climate change mitigation work we need to do, especially in the next decade.

Community Collaboration

Establish a Citizen Advisory Committee, to work with the Board of Supervisors (and relevant County staff), to help both give input to climate change mitigation efforts, as well as advise the County on critical community resilience- building work.

Sustainable Transport

Since the transportation sector is a core contributor to carbon emissions, we need to follow the lead of model green cities (such as Portland, Oregon), and establish cycling/walking linkages throughout core routes in our cities. I live in Ventura, and believe people here are desperate for more sustainable and healthy transport options.

Food Security

Please include edible, fire-mitigating, and indigenous trees in Supervisor Parks' 'two million trees' planting campaign.

Water Security

Please support community water resilience- building projects, such as one the Climate Hub is planning, called 'Transition Streets'

Thank you for your critical work,
Diana Kubilos

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, March 2, 2020 8:49 AM
To: Simmons, Carrie
Subject: FW: draft EIR

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Michelle Leahy <michelleleahy@hotmail.com>
Sent: Thursday, February 27, 2020 5:02 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: draft EIR

We are in a climate emergency. Humanity is facing an existential threat.

In October 2018, the United Nations Intergovernmental Panel on Climate Change sounded the alarm bells in a dire report, warning that governments everywhere, much take "rapid, far-reaching and unprecedented changes in all aspects of society" to dramatically cut emissions by 2030 if we hope to avoid climate catastrophe. And by all governments, that includes Ventura County. So we've got just ten years, and likely even less than that, since more sobering findings regarding tipping points and feedback loops have come out in recent months. As Bill McKibben puts it, "Winning slowly is the same as losing" when it comes to climate change.

Since we neglected to take the necessary actions decades ago, we no longer have the luxury to take small incremental steps; the magnitude and urgency of the crisis requires big, bold, swift action. It means no more business as usual, no more kicking the can down the road, no more catering to fossil fuel interests, no more short-term thinking, no more excuses. It means coming together and working

toward our collective common good. It means a moon shot, putting a stake in the ground and committing to achieving it.

The good news is that solutions are readily available, we just need to start acting on them.

The current draft EIR of the general plan update does not meet the urgency of action that the climate crisis demands. All policy decisions must be seen through a climate impact and mitigation lens.

- Michelle Ellison, Ojai

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

REC'D FEB 27 2020

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I am a part of the McLoughlin Family. We have been farming in Ventura County for approximately 150 years. We currently own 300 acres of agricultural property off of Olivas Park Road in the County of Ventura near the Ventura Marina on Harbor Rd, in proximity to the City of Ventura.

The McLoughlin family has farmed this land and other parcels for generations going back to 1863. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it's not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for widening, a stretch of roadway that borders the entire eastern portion of our farmland property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

A handwritten signature in black ink, appearing to read "Tanya Amato". The signature is fluid and cursive, with a long, sweeping tail on the final letter.

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, March 2, 2020 8:49 AM
To: Simmons, Carrie
Subject: FW: County buildout study

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Kristin Viemeister <viemeister@sbcglobal.net>
Sent: Thursday, February 27, 2020 5:02 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: County buildout study

To: Susan Curtis-

County failed to evaluate mitigation measure for feasibility- 500' set back for "sensitive receptors" from freeways and high traffic roads.

Mitigation Measure AQ-3 (Policy HAZ10-X) creates a minimum 500' set back for "sensitive receptors" from freeways and high traffic roads. Yet the County states in the Land Use section of the EIR that "the majority of the anticipated build out will be within the freeway corridors."

Has the County completed a "buildout study" to ensure that the establishment of this set back still leaves enough room for development to occur? Will this mitigation measure be economically feasible?

Kristin Viemeister

Sent from my iPhone

REC'D FEB 27 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

REC'D FEB 25 2020

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I am a part of the McLoughlin Family. We have been farming in Ventura County for approximately 150 years. We currently own 300 acres of agricultural property off of Olivas Park Road in the County of Ventura near the Ventura Marina on Harbor Rd, in proximity to the City of Ventura.

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I appreciate your consideration.

Marcia Garnetti

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, March 2, 2020 8:50 AM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Dario Grossberger <dariogro@gmail.com>
Sent: Thursday, February 27, 2020 5:00 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>; chris@rinconstrategies.com; llampara@colabvc.org
Subject: 2040 General Plan Draft EIR Comment

Regarding the 2040 General Plan,

The County failed to analyze the impact of allowing alternative fuel production in an Industrial area.

The County must analyze any impact that creates hazards on public health and safety through the transport, use or disposal of HazMat and HazWaste.

The County failed to evaluate Policy CTM-6.4 (alternative fueling stations) and has failed to even mention Policy LU-11.X (alternative fuel production) or Implementation Program LU-Program X (County shall allow the production of alternative fuel). These policies were not analyzed for impacts - and yet the County claims, without having conducted a complete and thorough analysis, that the impact will be less than significant (pg. 4.9-12 and 4.9-14).

This analysis was grossly inadequate and needs to be corrected and the EIR needs to be recirculated.

Sincerely yours,

Simmons, Carrie

From: Curtis, Susan
Sent: Monday, March 2, 2020 8:50 AM
To: Simmons, Carrie
Subject: FW: General Plan Comments

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Adam Vega <adam@pesticidereform.org>
Sent: Thursday, February 27, 2020 4:58 PM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: General Plan Comments

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Susan,

I feel there is a great opportunity to improve the Food Security (8.4) section of our General Plan. I've included a link to the Santa Barbara Food Action Plan for your review. From this plan I've gleaned language which I feel is vital for your consideration!

<https://www.sbcfoodaction.org/wp-content/uploads/2016/09/SBC-Food-Action-Plan-2016FinalReport-update.pdf>

INVEST IN OUR FOOD ECONOMY

Invest in Our Food Economy calls us to support a new, diverse generation of food and farming entrepreneurs with training, education, preferential purchasing policies, and investments in food distribution infrastructure. These upstream investments are designed to pay increasing dividends over time as these entrepreneurs build local businesses and create jobs.

- Support the next generation of farmers and food system entrepreneurs by creating or expanding agriculture and vocational education at the high school and community college level.

INVEST IN OUR HEALTH & WELLNESS

Invest in Our Health & Wellness

Calls us to address the continuing diet-related challenges in our community by creating networks of neighbor-to-neighbor support, and by engaging employers, teachers, and physicians as partners to promote healthy living. The strategies focus on the information gaps that make it hard to make good health choices.

- Facilitate the adoption and implementation of workplace wellness policies that include support for healthy eating behaviors and access to healthy foods.

Thank you,

Adam

--

Adam Vega

Pesticide Community Organizer

Californians for Pesticide Reform

[4225 Saviers Rd., Oxnard, CA 93033](http://4225SaviersRd.Oxnard.CA.93033)

Phone: (805) 312-6875

www.pesticidereform.org

Working together for a just & sustainable food system since 1996

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 8:23 AM
To: Simmons, Carrie
Subject: FW: Ventura Co Gen Plan-EIR letter 2-25.docx
Attachments: Ventura Co Gen Plan-EIR letter 2-25.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

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From: Toril Raymond <toril.raymond@yahoo.com>
Sent: Thursday, February 27, 2020 8:23 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Ventura Co Gen Plan-EIR letter 2-25.docx

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Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 S. Victoria Ave., L #1740
Ventura, CA 93009-1740

GeneralPlanUpdate@ventura.org

Dear Ms. Curtis:

I am writing to call your attention to significant flaws in the process, data, and conclusions of the Ventura County General Plan, Draft EIR, and supplemental documents.

My great grandfather, Mark McLoughlin (1843-1914), was a true Ventura County pioneer, purchasing his first 318 acres of undeveloped land in Ventura County in 1875. He was a hard-working visionary, revered by his community. With his son—my grandfather, James Patrick McLoughlin—he raised livestock and farmed the land, providing jobs and feeding the growing towns of Oxnard and Ventura.

Our land, in a vitally important location on Olivas Park Drive across from the Ventura Marina, has been in the family, and part of the economic fabric of the community, for 100 years. And we want it to be part of the future of this community, with a flourishing economy, a thriving job market, and unsurpassed quality of life for its residents.

But the General Plan and DEIR do not describe a viable path for us as landowners going forward.

I will begin with some specific issues regarding language in the Coastal Area Plan, 4-82-83 and 4-94-95. Part of our land is located in the Central Coastal Zone, adjacent to the Ventura Marina, on Olivas Park Drive at Harbor Blvd. The only conclusion the Plan draws about our land is the statement that, “unlike the Preble area, services are not readily available to the Olivas lands.” This is false. Our property has access to all utilities, water, main roads, and the freeway. Indeed, easements on our property serve surrounding areas with utilities.

The Plan also claims that our property is “not included in the City’s sanitation district because of problems with water pressure.” This language is irrelevant and incorrect. There is no evidence that there are water pressure issues, and the sanitation district’s pipelines actually traverse our property.

While we do not know the original source of these misstatements, such misrepresentations—now repeated in the Plan—threaten to diminish the value of our land in relation to the Preble property. And, of course, they undermine the goal and the value of the Plan itself.

The General Plan also speaks of the widening of Olivas Park Drive, our southern boundary. This would have a direct impact on our property. But the Plan does not address how this would happen or how it would affect our land.

Damaging misstatements about our property also appear in the DEIR. Contrary to the portrayal in the DEIR, our property has significant infrastructure in place, as well as prime accessibility to the highway and the harbor. In fact, with easy access to the marina and beach community, and with the railroad as part of our eastern boundary, our land is uniquely suited to be an important part of future economic development in the area. We are entitled to have all these matters corrected.

I would also like to raise some additional concerns:

1. The General Plan and DEIR continue to ignore the 28% increase in the homeless population in our community.
2. According to the General Plan, if we were to build an acre of low income / worker housing we would need to buy two replacement acres of same Ag land to be placed into perpetual agricultural preservation. This is unrealistic and infeasible, and certainly not in line with the State government's housing policies.
3. The EIR does not adequately address the enormous "indirect impacts" that will occur as a result of implementing the General Plan, calling them "less than significant."
4. The General Plan contains policies that will increase the costs of normal farming operations, making it difficult for farming to remain profitable.
5. The Plan does not adequately evaluate the impacts of increased competition for water in our community.

The EIR is a flawed document, full of errors, that does not disclose all impacts, direct and indirect, caused by the General Plan. It was obviously rushed—completed in six weeks. It is inaccurate and incomplete, and fails to provide members of the community with the information that they are legally entitled to. This EIR should be corrected and reconsidered, and a reasonable time period should be allowed for meaningful and thoughtful community input.

Sincerely,

Simmons, Carrie

From: VC2040.org Comments <alan.brown@ventura.org>
Sent: Thursday, February 27, 2020 8:53 AM
To: Downing, Clay; General Plan Update; Curtis, Susan; Sussman, Shelley
Cc: Brown, Alan

Follow Up Flag: Follow up
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You have a NEW Comment

Name:

Sophia Valentina Arce

Contact Information:

sophie2arce@gmail.com

Comment On:

All

Your Comment:

We need a climate action plan with measurable targets and outcomes. The current policies aren't measurable or enforceable, and are not sufficient to drive the kind of change necessary to meet the greenhouse gas reduction targets.

Simmons, Carrie

From: Scott Hirsch <scotthirschsound@gmail.com>
Sent: Thursday, February 27, 2020 9:26 AM
To: General Plan Update
Subject: Re: General Plan

Follow Up Flag: Follow up
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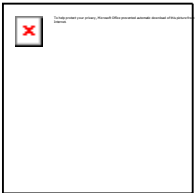
To Whom It May Concern,

Climate change is here, its effects are already evident in our county. The General Plan update fails to provide enough emissions reduction to meet the state-mandated goals. A robust plan, with the help of technical and scientific input, needs to be included for the 2040 General Plan, including a strong defense of the five pound air emissions limit for the Ojai Valley.

Sincerely,
Scott Hirsch
Ojai, CA

—

Scott Hirsch



Simmons, Carrie

From: ka lottes <kalottes@yahoo.com>
Sent: Thursday, February 27, 2020 10:01 AM
To: Curtis, Susan; General Plan Update
Subject: GenPlan Update 2040 & DEIR
Attachments: 2.27.20 letter, to VCRMA, GP.DEIR.docx

Follow Up Flag: Follow up
Flag Status: Flagged

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Susan,
Please see my letter attached.
Thanks,
Kathy Lottes

February 27, 2020

Susan Curtis
Manager, General Plan Update Section
VCRMA, Planning Division
800 S. Victoria Avenue
Ventura, CA
E-mail: GeneralPlanUpdate@ventura.org
Susan.Curtis@ventura.org

Re: County of Ventura 2040 General Plan Update and DEIR

Dear Susan,

I am writing to express my support of comments on the 2040 General Plan Update and DEIR submitted by Dr. Steven Colomé and also those comments submitted by Climate First: Replacing Oil & Gas (CFROG). As I recall, when the County conducted an early outreach effort on the General Plan Update, results came back showing a very high level of residents' concern about climate change. Since then, we've had extraordinary and damaging wildfires including the Thomas Fire and the Woolsey Fire; we've also had the County's commissioned report on sea level rise finding the County is highly susceptible both to the impending sea level rise as well as storm surge flooding. Yet, the County still cannot bring itself to adequately address and meet greenhouse gas (GHG) reduction goals of the State or even the County's own stated General Plan goals.

Ventura County oil and gas production is one of the highest in the state. So, this sector – oil and gas development, including existing operations – is where we must plan and execute a huge reduction of GHG emissions over the next 20 years. The problems with the baseline inventory of GHG emissions, emission forecasting, lack of effective, meaningful policies, inadequate mitigations, and failure to produce an effective CAP (Climate Action Plan) are laid out in the comments from Dr. Colomé and CFROG.

The County is failing to take hold of the power of a General Plan and use it - to implement necessary and important change – to reduce our GHG emissions. In particular, the County must incorporate mitigation measures to: 1) prohibit all new oil well drilling, 2) prohibit all flaring, and 3) phase out all non-conforming/antiquated facilities and operations through amortization.

Please remember and embrace the residents' concern about climate change at the outset of the General Plan process and show leadership in this time of climate crises. You must act in the best interests of Ventura County residents.

Sincerely,
Kathryn Lottes

Simmons, Carrie

From: John Foster <jfoster@greenwood-associates.com>
Sent: Thursday, February 27, 2020 10:33 AM
To: General Plan Update
Subject: Comments, Archaeology

Follow Up Flag: Follow up
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I would urge the County to include how the agency would establish a "preponderance of evidence that the resource is not archaeologically or culturally significant." See below. How would this be done and could it be appealed?

The number of archaeological sites in Ventura County is decreasing at a rapid rate and the definition of archaeological significance should be revised, "that all Native American archaeological sites, should be considered significant since the prehistoric identity of the Indigenous groups is tied solely to archaeological evidence." Loss of any sites would irrevocably result in loss of significant portions of their culture.

Thank you for your consideration.

John M. Foster, RPA
President, Greenwood and Associates

For the purpose of this draft EIR, implementation of the 2040 General Plan would have a significant impact on cultural, tribal cultural, or paleontological resources if it would:

Demolish or materially alter in an adverse manner those physical characteristics of an archaeological resource that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not archaeologically or culturally significant. Demolish or materially alter in an adverse manner those physical characteristics of an archaeological resource that convey its archaeological significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA. Demolish or materially alter in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources. Demolish or materially alter in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in a historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant. Cultural, Tribal Cultural, and Paleontological Resources Ventura County 4.5-6 2040 General Plan Draft Environmental Impact Report Demolish or materially alter in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA. Demolish or materially alter in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074. Result in the disturbance of human remains, including those interred outside of formal cemeteries. Result in grading and excavation of fossiliferous rock (identified as "Moderate to High" or "High" on Table D.2 of the ISAG) or increase access opportunities and unauthorized collection of fossil materials from valuable sites.

--

John M. Foster
President
Greenwood and Associates



FEB 27 2019 4:12

Jennifer Pezda, MESM
Environmental Policy Advisor

555 W. Fifth Street, GCT 2105
Los Angeles, CA 90013

Email: jpezda@semprautilities.com

6/21/2019

Susan Curtis

RMA Planning Division, General Plan Update

800 South Victoria Avenue., L #1740

Ventura, CA 93009-1740

RE: Ventura County 2040 General Plan Update and Climate Action Plan

Dear Ms. Curtis,

SoCalGas appreciates the opportunity to submit comments on County's Preliminary Public Review Draft General Plan (Draft Plan). We have been continually engaged in the development of the Draft Plan and further appreciate the opportunities to attend public workshops, planning commission meetings, and participate in online surveys as means to submit feedback throughout the planning process. We believe this document will provide valuable direction for the County to pursue effective, long-term sustainable planning goals. SoCalGas especially supports the County's direction to pursue policies that promote furtherance of renewable energy development and expansion while also contributing to regional and local resiliency. We support many of the policies currently included in the Draft Plan and look forward to partnering with the County to achieve these ambitious strategies and actions. We do believe the Draft Plan could benefit from active identification and incorporation of the following takeaways:

- **The Draft Plan can be greatly enhanced by pursuing significant synergies between production and use of renewable natural gas (RNG) and the County's renewable energy goals, waste reduction/diversion targets, and emission reduction strategies.**
- **Because the pipeline system that delivers RNG is inherently resilient to aboveground climate events, it can greatly help increase the resiliency of County infrastructure and operations to climate hazards and impacts.**

Most prominently, we are excited at the potential opportunities that exist between the county's waste reduction and diversion targets, as stated in the Draft Plan, and development and use of RNG resources that can drive and incentivize their attainment. RNG can be produced from existing waste streams within the County, including organic waste, green waste, and agricultural waste. This aligns with the goals of Strategy PFS-5.5 – "support the beneficial reuse of agricultural wastes...such as energy generation" and PFS-5.6 – "promote value-added alternatives to solid waste management, such as...energy." Further, the organic waste diversion incentives generated by RNG production would also help the County achieve the organic waste diversion targets mandated under SB 1383. Similarly, use of existing waste

resources to produce RNG aligns with the County's emphasis to increase the use of renewable energy as stated in Policy COS-8 and its supporting strategies that advocate promoting development and use of renewable energy resources (including bioenergy) and transitioning to zero net energy buildings (Strategies COS-8.1 and 8.5, respectively). We are ecstatic to see that such synergies are acknowledged in the GHG Mitigation and Climate Adaptation Measures in the County's Draft Climate Action Plan, Appendix B of the Draft Plan, such as in Policy AG-L which prompts the County to develop a program to coordinate public-private local investment in biogas control systems.

Because RNG is produced from existing methane sources that are otherwise being emitted into the air, unabated, capturing these emissions to produce RNG helps reduce both regional and local methane and GHG emissions. As a short-lived climate pollutant, methane has a greater global warming potential than carbon dioxide—specifically, methane is approximately 28 times more potent than carbon dioxide in the atmosphere^{1,2}. From a lifecycle perspective, because RNG production removes a greater quantity of more potent GHG emissions from the air than what it produces at end uses, its production is a **carbon negative process**, and can be used to offset other uses that cannot achieve carbon neutrality. As the County is aware, SoCalGas recently filed a request with the California Public Utilities Commission seeking to offer RNG to all customers, which would have significant potential to significantly reduce both local and regional GHG emissions. In fact, replacing only 20% of existing natural gas supply with RNG achieves the same emissions reductions as electrifying the entire building sector by 2030, but at one-third of the cost.³ For these reasons, we recommend that the Draft Plan include additional policies and supportive strategies to promote both production and use of RNG as an incentive mechanism to enhance organic waste reduction/diversion, in addition to use as a renewable fuel option for decarbonizing the building and transportation sectors.

The underground natural gas system is more resilient than the aboveground electric system

Use of RNG as a renewable energy source also has synergies with County resilience goals and targets. As stated at the recent Planning Commission General Plan Update Workshop on June 13th, 2019, County staff directly acknowledged the dual importance of decarbonizing energy supplies but while also keeping in mind the critical importance of energy reliability. As we know, the impacts of global climate change are set to continually increase in severity, which will result in more severe wildfires, storms, and floods. Wildfire risk, specifically, is one of the most prominent climate change hazards facing the County, especially as just over the past two years Southern California has experienced two of the largest wildfires in the State's history that burned millions of acres and destroyed thousands of homes and property, a significant portion of which occurred within Ventura County. To this end, SoCalGas supports the draft policies

¹ IPCC. Global Warming Potential Values https://www.ghgprotocol.org/sites/default/files/ghgp/Global-Warming-Potential-Values%20%28Feb%2016%202016%29_1.pdf

² California Air Resources Board (CARB). Understanding Global Warming Potentials. <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>

³ PR Newswire. New Study Advises Policymakers to Consider Renewable Natural Gas for Low-Carbon Buildings Strategy. August 8, 2018. <https://www.prnewswire.com/news-releases/new-study-advises-policymakers-to-consider-renewable-natural-gas-for-low-carbon-buildings-strategy-300691318.html>

aimed at enhancing local adaptive capacity such as Policy HAZ-11.4, which supports education and outreach efforts to inform local communities about climate change impacts, and Policy HAZ-P, which aims to identify critical infrastructure vulnerable to extreme heat.

As seen in the recent wildfires and mudslides that ravaged Southern California, energy system vulnerability is a significant factor that affects local resilience to such hazards. As the electric system is almost entirely aboveground, it is significantly more exposed to threats and, when impacted, can not only leave hundreds to thousands of residents without power at their homes, but also affect operation of critical facilities. For example, in 2017 the Thomas Fire damaged electric power lines throughout the City of Ventura. Because the City's water pumps to supply water to firefighters ran on electricity without any other form of backup power, firefighters were unable to get water from the pumps to put out burning residences⁴. If the water pumps had been connected to a backup power system, such as a natural gas generator, firefighters would have been able to access the water.

In contrast, as the natural gas system is mostly underground, it is very resilient to extreme weather events. For example, in 2012, after Superstorm Sandy, the entire natural gas system in the Northeast was essentially intact, allowing residents to support back-up generators, cook, and keep warm. Businesses with natural gas-powered fuel cells were able to operate and compressed natural gas (CNG) buses in New Jersey were used to shuttle residents to safety⁵. Further, when Hurricane Harvey temporarily disabled almost 30% of the nation's refining capacity, CNG shuttles were able to continue operating, and hospitals that had on-site combined heat and power systems were able to provide urgently needed medical attention, despite flooding. These examples demonstrate the critical role natural gas infrastructure can play in supporting local and regional energy supply resilience in the face of extreme climate events and use of renewable natural gas can achieve additional co-benefits in reducing GHG emissions.

SoCalGas has been engaging with stakeholders and consultants to conduct case studies and risk assessments of the natural gas system with the intent to demonstrate the security and resilience of our system. SoCalGas intends to use this information to help local and regional cities and counties undertake similar efforts to identify system and infrastructure vulnerability. We also offer our annual Climate Adaptation and Resilience Grant⁶ to local cities and counties to help fund efforts to update and develop local adaptation and resilience plans. We greatly appreciate recognition of our grant in the Draft Climate Action Plan and encourage the County to apply during this year's application period.

⁴ ICF. Case Studies of Natural Gas Sector Resilience Following Four Climate-Related Disasters in 2017. <https://www.socalgas.com/1443742022576/SoCalGas-Case-Studies.pdf>

⁵ https://www.energy.gov/eere/articles/5-ways-alternative-fuels-aid-response-hurricanes-and-natural-disasters?utm_source=EERE+Weekly+Digest+of+Clean+Energy+News&utm_campaign=f048cbec65-EMAIL_CAMPAIGN_2017_09_25&utm_medium=email&utm_term=0_96dffafa2f-f048cbec65-34678197

⁶ SoCalGas Climate Adaptation and Resiliency Planning Grant Program. <https://www.socalgas.com/smart-energy/sustainability-at-socalgas/climate-grant>

Looking forward, we believe renewable natural gas will play an important role in the County's renewable energy plans and help it achieve State GHG emission reduction goals, organic waste diversion goals, as well as climate resiliency goals. Decarbonizing our natural gas delivery system keeps intact the inherent energy efficiencies of direct uses of natural gas, at lower carbon-content, while also demonstrating synergies with County waste reduction goals by boosting efforts to enhance organic waste management and recycling. SoCalGas appreciates the opportunities provided by the County to engage throughout the formation of this Draft Plan and hopes to continue communication for the duration of the planning process. If you have any questions, please do not hesitate to reach out via telephone or email. Thank you!

Sincerely,

A handwritten signature in black ink, appearing to be 'JP', written in a cursive style.

Jennifer Pezda, MESM
Environmental Policy Advisor
Southern California Gas Company

Simmons, Carrie

From: Wayne Morgan <waynemorgan1@yahoo.com>
Sent: Thursday, February 27, 2020 10:57 AM
To: General Plan Update
Subject: 2040 General Plan Comment submission
Attachments: CountyPlanning2040_Comments1.doc

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Hello -

Please find the attached Word document containing my comments on the 2040 General Plan.

Thank you,

Wayne Morgan
Ventura, CA

Dear County Supervisors and members of the Planning Commission:

I am deeply concerned about our future if we do not take significant action to curb green house gas emissions. Fossil fuel use is driving climate change. The impacts associated with climate change include droughts, fires, forced migration of animal and humans (which is one of the threats to national security), sea level rise, spread of disease and threats to biodiversity, to name a few. Also fossil fuels threaten the ocean ecosystem (because of acidification), reduce air quality, pose threats to our water supplies, are a fire threat (note recent refinery fires), and threaten economic stability because of volatile fossil fuel markets. Current levels of CO₂ are at historic highs yet we still put more into the atmosphere. The scary thought to me is that it takes decades for nature to take CO₂ out of the atmosphere. Estimates range from 30 – 90 years (Ref: *Archer, David (2009). "Atmospheric lifetime of fossil fuel carbon dioxide". Annual Review of Earth and Planetary Sciences. 37. pp. 117–34*). Other literature cites ranges from 20 – 200 years. So even if we stop all GHG emissions today, the earth will still be coasting to a warmer climate for decades.

Oil Production

I am concerned that Ventura has oil operations that I feel pose a risk. Some financial advisors are advising investment firms to be wary of fossil fuel investments. As renewable and green energy become increasingly less costly than fossil fuels and the projected displacement of petrol fueled cars by EVs, the market for fossil fuels will drop dramatically in the 2020s causing many oil operations to drop out of the market, leaving stranded assets. (Ref: See works by authors Ross Tessian and Tony Seba. Blackrock Investments.) So, not only could oil operations in Ventura become uneconomical, there is a risk to Ventura that cleanup of abandoned operations will be dropped on Ventura's doorstep.

Oil production threatens the health of residents located close oil operations. Benzene, toluene, and hydrogen sulfide, among others, pose health risks, especially to children. To many in the community this is an environmental justice issue. Wells must be properly shutdown to insure safe environment for the community.

I recommend phasing out oil operations in the county as soon as possible and cleaning up the operation sites before they become a County financial liability.

Transportation

Technology will disrupt transportation in the 2020s. Many transportation experts are predicting economics will price petrol-fueled vehicles out of the market mid 2020s. Why, because EV's will be cheaper to produce, cheaper per mile to drive and much cheaper to maintain. (They have typically about 18 moving parts compared to 1,000+ moving parts for a petrol car.) Also, battery improvements will lead to cheaper, longer range, faster charging and longer lasting batteries. Already there are many Teslas that have more than 250,000 miles on their batteries and Tesla estimates that their new batteries will last to about 1 million miles). Note that electric vehicles don't use much, if any, oil for lubrication. This will lessen the roadway oil runoff and its associated impacts. And EVs are quieter.

Autonomous electric vehicles will start to come online in the 2020s. This will start a dramatic change in the transportation model. Ride hailing of autonomous vehicles will become the norm. In the future, most people will not own cars – It will be cheaper to just hail a ride with your smartphone. Just tell your phone where you want to go and when, and the ride hailing service will send an autonomous vehicle to pick you up. I envision most future urban transportation will be done this way. (Ref [Three Revolutions: Steering Automated, Shared and Electric Vehicles to a Better Future](#) by Daniel Sperling, 2018).

This revolution will mean less land is needed for parking and many parking lots may be repurposed. Transportation over long distances could be done with rail lines and the last miles be done with hailed autonomous vehicles. Rail lines could be built in the medians of many of the existing highways. One specific project could be a light rail connecting CSUCI to the 101 Freeway (Camarillo MetroLink Station). Autonomous trains could provide continuous and on demand service to greatly increase travel convenience. This could be modeled after airport transportation light rails, such as at Hartsfield Airport in Atlanta. (An aside, rail service should be used where possible in place of vehicles with rubber tires to reduce hazardous air particulates). Because of the coming changes, the County should carefully look at the wisdom of investing in road expansions with the possibility that fewer cars will be on the roads in the future.

Also note that the authors Ross Tessian and Tony Seba, to name a few, predict that these changes to will occur quicker than we think, maybe less than a decade.

Economics

Many of the investments in renewal energy will pay for themselves in less than a decade. Implementation of renewable projects should be viewed as an investment. To me it is a no-brainer.

I would encourage the County to assist home owners, builders and apartment owners to find financing for renewal and energy saving investments. Maybe bundling, facilitated by government agencies, would create opportunities for more and less expensive funds to be available.

Renewables have few external costs, whereas fossil fuels have many such as climate change impacts, air pollution, water pollution, health hazards, fire hazard, security costs (domestic and foreign), subsidies, spills, and oil runoff from vehicles to name a few. We all pay for these hidden costs. Considering these costs make the renewables even more attractive.

Other

In the future homes and buildings should run only on electricity – Use heat pumps for heating and cooling, hybrid electrical water heaters and electrical cooking appliances.

Solar panels on rooftops & batteries for housing increases grid stability, reliability and security. It reduces electrical distribution costs and reduces the need for peaker plants. Peaker plants will be a thing of the past.

Environmental justice is a problem in the County, especially near oil operations. Environment justice should be given a heavy weight in considering the future projects to protect Ventura citizens, especially the children.

Comments on some specifics:

CTM-6.6 Policy CTM-6.5: Electric Vehicle Charging Stations.

Comment: Electric vehicles could offer electrical grid stabilization at a low capital cost by utilizing part of their storage to supply power during high electrical demand or when other renewals are not available. This applies to EVs used for personal as well as ride hailing services. As such, charging during daylight hours becomes very desirable and thus charging stations

should be required at all public buildings and parking lots. Businesses should also offer charging at their facilities. Charging hubs that have storage capability to allow for very rapid charging, say, less than 10 minutes, should be built and possibly located at under utilized sites.

Policy COS-8.10: Battery Energy Storage Systems.

Comment: County buildings and critical services should be backed-up using battery storage. This battery storage could be part of a Virtual Power Plant concept (need to coordinate with electrical utilities) and could bring revenue to the County by supply excess capacity during peak demand. Back-up has become very important due to disruptions in electrical service due to fires and fire prevention. These comments also apply to **Implementation Program T: Energy Consumption Performance.**

Policy PFS-7.6: Smart Grid Development.

Comment: Smart grid development is vitally needed to stabilize the grid through both load leveling and utilizing electrical storage efficiently. Battery storage can instantly respond to load variations which will greatly improve efficiency and reduce reserve power levels from variable sources. County building should be equipped with storage and made part of the smart grid.

Thank you for you time and consideration.

Respectfully,

Wayne Morgan
Ventura, CA

Simmons, Carrie

From: Jennifer Rivera <jrivera@cipa.org>
Sent: Thursday, February 27, 2020 11:02 AM
To: General Plan Update
Subject: Comments on Ventura County 2040 General Plan Draft Environmental Report
Attachments: Ventura General Plan Update DEIR Comment Letter.pdf

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Please see attached comments from California Independent Petroleum Association (CIPA) to Ventura County's 2040 General Plan Draft Environmental Report.

Thank you.



JENNIFER RIVERA
VICE PRESIDENT OF PUBLIC AFFAIRS

PHONE: (562) 522-9596



California Independent Petroleum Association
1001 K Street, 6th Floor
Sacramento, CA 95814
Phone: (916) 447-1177
Fax: (916) 447-1144

February 27, 2020

VIA ELECTRONIC DELIVERY

Susan Curtis, Manager, General Plan Section Update
Ventura County Resource Management Agency, Planning Division
800 S. Victoria Ave., L#1740
Ventura, CA 93009
GeneralPlanUpdate@ventura.org

Re: *Comments on Ventura County 2040 General Plan Draft Environmental Report (State Clearinghouse No. #2019011026)*

Dear Ms. Curtis,

The California Independent Petroleum Association (CIPA) appreciates the opportunity to submit comments on the Draft Environmental Impact Report (DEIR) prepared for the County of Ventura's (County) proposed update to its existing general plan (GP 2040). While we appreciate the County's efforts to comply with the California Environmental Quality Act (CEQA) in preparing the DEIR, our review of the DEIR reveals that it contains numerous legal defects. Many sections of the DEIR must be substantially revised, and the DEIR must be recirculated, before it can be considered for certification.

CIPA represents several independent oil and gas producers in the County. CIPA's producer members actively contribute to the County's economic base, provide myriad local employment opportunities and produce oil and gas resources within the County in an environmentally responsible manner.

CIPA seeks to promote greater understanding and awareness of the critical role domestic oil and gas production plays in powering the County's vibrant economy. Local oil and natural gas producers provide both the energy and the building blocks of nearly every material that County residents utilize on a daily basis, and we recognize that the affordability, reliability and resilience of those supplies will largely determine whether the County achieves a more vibrant

and inclusive economy, a more equitable society, and continued improvements in environmental quality.

The policies and additional restrictions proposed in the general plan (GP 2040) will devastate the vitality of the County of Ventura by: eliminating thousands of high-paying, middle-class jobs; costing the County tens of billions of dollars; relinquishing tens of millions of dollars in local tax revenues; raising the cost of living for all Ventura residents; and threatening the economy and the livelihoods of Ventura residents by increasing dependence on unreliable foreign sources of oil.

The DEIR not only lacks proper analysis on the economic impacts said restrictions and policies will have on the residents of Ventura County, but relies on factually incorrect and underpin assumptions to complete its analysis.

For these reasons and many others, we urge the County to revise the DEIR and recirculate before it's considered for certification.

CEQA COMMENTS:

1. CIPA joins in the comments submitted by Aera Energy LLC.

CIPA member Aera Energy LLC has submitted a number of comments concerning the legal adequacy of the DEIR, and CIPA joins in those comments.

2. CIPA joins in the comments submitted by Western States Petroleum Association.

The Western States Petroleum Association (WSPA) has also submitted numerous comments on the DEIR. CIPA joins in those comments as well.

3. The DEIR's GHG emissions analysis is legally flawed.

To reduce the production of greenhouse gas (GHG) emissions we must decrease our reliance on energy imports for over 90% of our natural gas, 70% of our oil and 30% of our electricity needs. GP 2040 proposes adoption of policies that will significantly increase Ventura's dependence on imported energy, meaning that Ventura is delegating its environmental leadership to other states, countries and regimes that do not share our environmental, labor, and human rights standards.

The DEIR concedes that adoption of GP 2040 will cause the County to rely on imported energy, but fails to quantify, evaluate or propose mitigation for the resulting increase in GHG emissions. In section 4.12, the DEIR states that "the demand for California-produced oil and gas would be satisfied through the importation of additional oil and gas from other countries and Alaska, which in turn could have indirect environmental impacts such as those associated with transporting the oil and gas from outside of Ventura County." This is extremely alarming since

the increase of imported energy has a clear and direct impact on our environment, much more than from the result of local production. The DEIR makes no attempt to analyze this impact. The DEIR must evaluate this known adverse impact and propose feasible mitigation measures.

4. Factually incorrect and unsupported assumptions underpin much of the DEIR's analysis.

The DEIR assumes that new discretionary permits will be issued for oil and gas wells, but fails to recognize the fact that oil and gas operations within the GP 2040 boundary will continue to operate under, valid and vested entitlements. To the extent the DEIR assumes that such operations will be subject to further discretionary review and the imposition of additional mitigation measures and/or conditions, that assumption is incorrect as a matter of law, and all analysis flowing from it is flawed.

GP 2040 Policies COS 7.2 and COS 7.3 are presented in the DEIR as limiting effects on human health. The DEIR cites a County of Los Angeles 2018 report as the basis for assuming that stated limiting effect on human health. What the Draft EIR fails to mention or quantify in any substantial manner, is the fact that the County of Los Angeles 2018 report's conclusions and recommendations lack grounding scientific research. The report lacks objective scientific data from the County of Los Angeles; reviews other jurisdictions outside of California when making recommendations or claims; uses weak, unsubstantiated, misleading language and science; excludes the County of Los Angeles Department of Health's own data and previous studies.

The Draft EIR also makes reference to the 2019 City of Los Angeles Oil and Gas Health Report. That report clearly states, "There is a lack of empirical evidence correlating oil and gas operations within the City of Los Angeles to widespread negative health impacts. The lack of evidence of public health impacts from oil and natural gas operations has been demonstrated locally in multiple studies by the Los Angeles County Department of Public Health, the Los Angeles County Oil & Gas Strike Team, the South Coast Air Quality Management District and the comprehensive Kern County Environmental Impact Report and Health Risk Assessment." Lastly, the DEIR relies in part on unsettled legislation, Assembly Bill 345. Assembly Bill 345 is not law and the DEIR cannot treat it as such.

We thank the County for this opportunity to review and comment on the DEIR for GP 2040, and we ask that these comments be included in the record of proceedings in this matter. As set forth above and further articulated in the comments submitted by Aera Energy LLC and WSPA, the DEIR suffers from numerous legal defects. These defects must be cured and the DEIR must be recirculated

Sincerely,

A handwritten signature in black ink, appearing to read "Rock Zierman". The signature is stylized with a large "R" and a long horizontal stroke extending to the right.

Rock Zierman
Chief Executive Officer
California Independent Petroleum Association

Simmons, Carrie

From: Carol Holly <carol.holly2@gmail.com>
Sent: Thursday, February 27, 2020 11:25 AM
To: Curtis, Susan; General Plan Update
Subject: COS-7.2 setback distance, DEIR comments
Attachments: Carol's Setback comments Final.docx

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To: Susan Curtis, Manager, General Plan Update, Susan.Curtis@ventura.org

Comments on COS-7.2 setback requirements for oil and gas wells, **DEIR for GPU 2040**

From: Carol Holly, 10508 Sulphur Mountain Road, Ojai, CA 93023

Proposed General Plan 2040 Policy:

- **COS-7.2: Oil Well Distance Criteria.** The County shall require new discretionary oil wells to be located a minimum of 1,500 feet from residential dwellings and 2,500 from any school. (RDR) [Source: New Policy]

The DEIR suggests a mitigation measure to the above policy to decrease the setback from schools (and to include day care centers) from 2500' to 1500'. The reasoning in the DEIR for this decrease in setback is to allow a potential operator in the future who perhaps wanted to drill an oil well without directional drilling to place the well on the drill pad anywhere they want. The DEIR stretches common sense with this argument. If the future operator can drill horizontally 1500' as stated in the DEIR, why not 2500'? There is a difference in the cost of drilling, but the risk to the health and safety of young children far outweighs the small economic cost to an operator or two.

I was an elementary school principal in Ojai Unified School District for 22 years. In my role, among other things, I was responsible for ensuring the health and safety of children assigned to my school. Many young children suffer from asthma and skin allergies. All children love to run and play at recess. It is critical that those sensitive children are protected from unwanted and unnecessary exposure to air toxins that may cause serious complications leading to poor school attendance and miserable days of recovery time.

In my last assignment before retiring, I was principal at a school with three classrooms of special needs children, some of whom were medically fragile and who suffered from life-threatening childhood illnesses. This latter group of children were often highly sensitive to changes in their environment and the reactions they suffered were sometimes immediate and very serious. I remember asking one mother of such a child, "when would you like me to call 911?" Her response was, "any time you want to." As chilling as that sounds, it was real.

Air toxins are dangerous to anyone in close proximity to the source of the emissions, but they are especially dangerous to young children. Children who are medically fragile may find them intolerable.

Bad Accidents Happen

In 2006, oil well #36 in the Ojai Oil Field began spewing a mixture of brine water and oil at the rate of 210 gallons per minute (5 barrels) after a 3.1 magnitude earthquake on the San Cayetano Fault (see attached DOGGR report). Summit School at that time had a population of approximately 80 K-6 grade students. The school is cited about 1000' from well #36 (see attached map). The well continued to spew a toxic mix of brine water and unknown other

chemicals used in the capping process onto the land for three months. The well casing break was very difficult to get under control. Finally, after accruing a cost of 4 million dollars, the flow was stopped. During the entire time the well was being worked on by teams of international well control experts no one at the school was notified of the disaster unfolding on the hillside upwind from the school. Children continued to play on the playground, teachers taught physical education, parents with babies dropped off and picked up their students. **No one knew.** Where was the Ventura County Environmental Health Department? Where was DOGGR? Where was the fire department whose station is just a few hundred feet east of Summit School? Were any tests done on air quality near the school?

After the well was capped and the drill rigs and heavy equipment all cleared out, a parent of children at the school was told of the disaster by a worker from the oilfield. The story spread and we were collectively horrified. There was never any follow-up study or even a quick check-in to see how the children of Summit School were doing. No one knows if the school attendance went down, or if there are students with lasting health issues caused by breathing toxic chemicals for three months. No one knows because no one asked.

If staff and the industry assert in response to this comment that there is no evidence that anyone was sick or hurt by the break in well #36, be aware. How can there be evidence when 1) no one knew of the emergency in real time, 2) no studies were ever done to look for possible effects of the spill to human health at the school and 3) the air quality at the school was never tested?

A setback distance of 2,500', roughly 1/3 of a mile, is about all we can do to protect the health of young children at a school near active or idled oil and gas activities.

I can assure you that no one with a medically fragile child would ever rent or buy a house 1500' from an active oil well if they could possibly avoid it, why would they have to send their child to a school 1500' from such a well?

Please reject the mitigation measure and retain the 2500' setback from schools and day care centers.

Thank you,

Carol Holly,

Retired Elementary School Principal, Ojai Unified School District,

MS Educational Administration

ABANDONMENT OF WELL “OJAI” 36

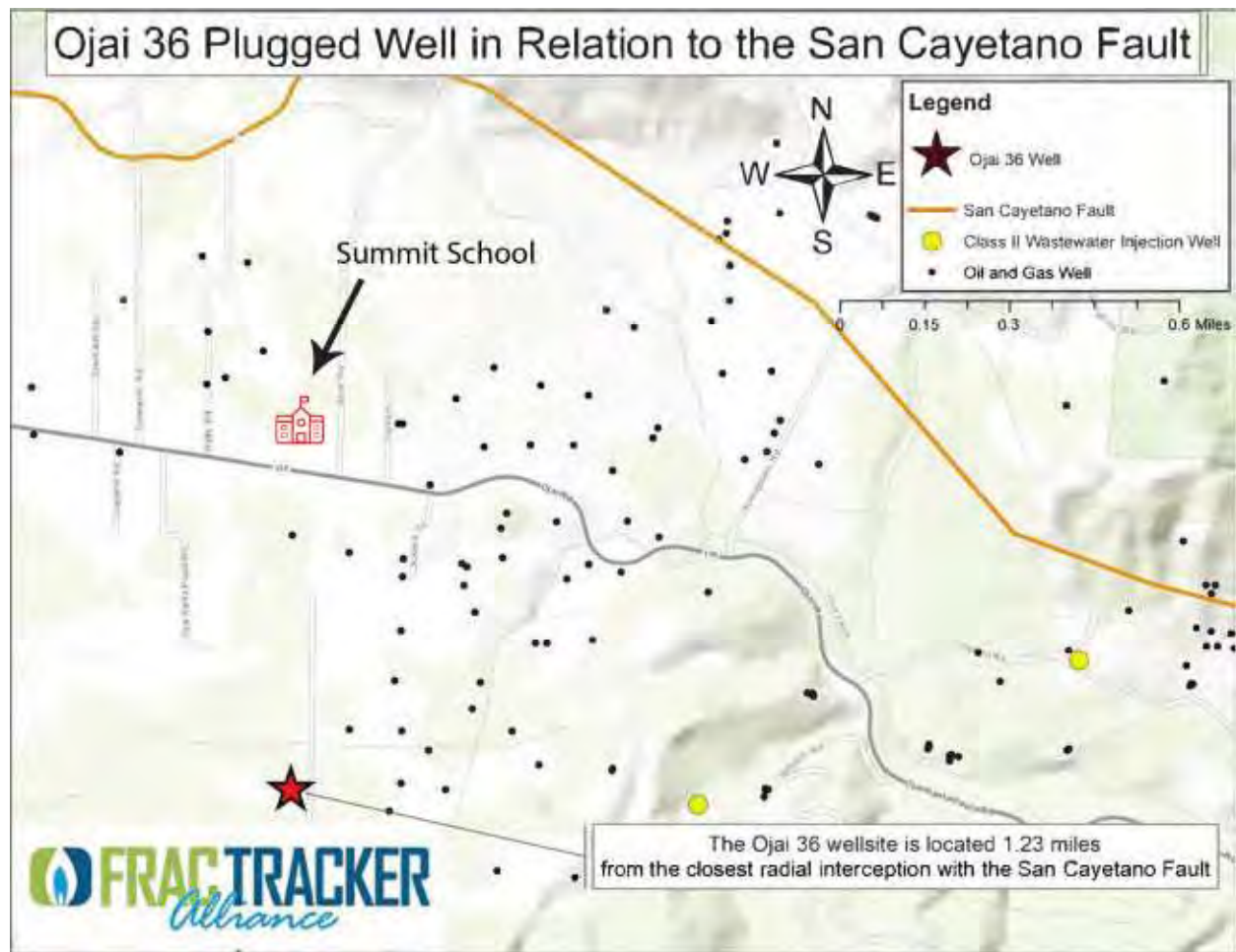
On March 3, 2006, immediately following a seismic event along the San Cayetana fault in the Sespe oil field, idle-well “Ojai” 36, located approximately five miles west along this same fault zone in the Sisar Creek Area of the Ojai oil field, began to flow water at a rate of five barrels per minute. Well records indicated the well penetrated a fault and had encountered a high-pressure water sand. The operator, VPC, contracted with international well-control specialists Boots and Coots to begin emergency operations to secure the well site and bring the well under control. Division staff were on location daily to witness operations. The well was eventually killed with 20 pound-per-gallon mud and permanently plugged and abandoned by May 1st at a cost of approximately \$4 million (Photos 1 and 2).



Photo 2



Photo 1



Arbelaez, Jhon, Shaye Wolf, and Andrew Grinberg. *On Shaky Ground: Fracking, Acidizing, and Increased Earthquake Risk in California*. Pg. 14, 2014. Print.

Simmons, Carrie

From: John Brooks <jbrooksnp@gmail.com>
Sent: Thursday, February 27, 2020 12:45 PM
To: General Plan Update
Subject: General Plan Comments
Attachments: Climate Change Comments.docx

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Please confirm receipt - thanks

John Brooks
140 Beech Rd
Newbury Park, CA 91320

February 27, 2020

Transmitted via e-mail: generalplanupdate@ventura.org

Susan Curtis,
Ventura County Resource Management Agency,
Planning Division
800 S. Victoria Ave
Ventura, CA 93009

Re: Comments on County General Plan and Climate Action Plan

Dear Ms. Curtis:

I appreciate the opportunity to review and comment on the County's General Plan and the integrated Climate Action Plan. It is a very significant undertaking and I wanted to recognize that staff has made great strides in incorporating the diversity of interests and often conflicting perspectives.

I have attached comments to this letter and divided them into comments specifically addressing a Policy/Program and an additional more generic set of comments, resources and research that I relied on as part of my evaluation or I was unsure which section or sections to include them in. Hopefully the additional context will assist in the refinement of the GP and CAP.

There is an overreliance on state legislation as a source of emissions reductions in the early years. Local efforts need to be more robust given the urgency of the issue and the potential that the IPPC targets are not substantive enough given the latest scientific analysis. Please see the CFROG letter from June 5, 2019 for a more comprehensive overview. To avoid redundancy, I am not replicating all the CFROG comments. However, I am including them as part of my comments by reference.

Sincerely,

A handwritten signature in blue ink that reads "John Brooks". The signature is written in a cursive style with a long horizontal stroke at the end.

John Brooks

Climate Change Resources & Comments

Specific comments on sections of the CAP

LU-11.4 Change Shall to Require

LU-16.5 Change Shall to Require

LU-18.5 – “encourage stakeholders” and “have opportunity to learn about” is a pretty low bar. Please upgrade to County shall conduct programs/outreach in their neighborhoods or community gatherings and include multi-lingual capabilities as needed to reach out to the Hispanic and Mixteco populations.

PFS-1.2 & 1.3 – The County should adopt a policy of considering the 100-year projections when evaluating infrastructure since these facilities have significant sunk costs and it is significantly cheaper to upgrade when planning a facility versus retrofitting an existing building.

PFS-2.3 State law requires commercial buildings to be zero net energy (ZNE) in 2030. The County should show leadership, by requiring all new buildings to be ZNE and existing buildings to be in substantial compliance if the County is leasing greater than 50% of the building space.

PFS-E – The County procurement policies should be updated to require all suppliers, vendors and consultants to disclose the sustainability of their operations. The County could award as little as one point to this category, however, the requirement to disclose will have a significant effect on the adoption of policies and procedures that are environmentally beneficial. The County could develop a one-page form checklist that they submit with their bids. Alternatively, large corporations can share their corporate sustainability or ISO certifications and smaller ones can show that they follow the [Ventura County Green Business](#) practices if they have already completed those more comprehensive processes.

COS-8.1 – include promotion of microgrids as both a carbon reduction and resiliency measure for PSPS events.

COS-8.9 - Change Shall to Require and have a list of recommended shade trees appropriate for that region and tolerant of parking lot conditions. This could assist with stormwater mitigation measures and help reduce financial impacts to the County from flow into the public ROW.

COS-H – Ensure that the goal is net additional trees beyond replacement of dead/dying trees or mitigation trees for a project. Recommend that preference be given for tree planting in EJ or low-income communities.

COS-M – In addition, oil companies should pay an extraction fee per barrel for an insurance mitigation fund to ensure that abandoned wells and sites owned by bankrupt companies do not become a burden to taxpayers.

COS-Z – These should be online with easily understandable charts or graphs enabling the public to understand the data and compare to the projected savings to determine if individual measures are being met.

COS-CC I commend the recommendation to establish a Climate Emergency Council to advise the Board.

COS-DD – A critical component to assist in the development and implementation. An Office of Sustainability should be established within the CEO’s office and the primary staffperson in charge of this effort should be a direct report to the CEO recognizing both the critical and cross-cutting nature of this work and ensure the full cooperation of all County offices.

COS-EE - Measures should be incorporated to ensure that projects continue to implement requirements after the project is finished and occupancy is granted or face substantial penalties. For example, if they bypassed one or more measures, they could agree upfront to a penalty of 10x the carbon wasted with the funds going to assist in low-income areas of the county to weatherize or otherwise reduce their carbon footprint.

Haz-1.4 – The County should develop reach fire codes for the urban-wildland interface to minimize both property damage and the danger to emergency responders trying to protect structures in the new fire environment.

Haz-10.7 Change to read that the County will purchase ZEVs, unless they are not readily available in the vehicle class or purpose needed or the lifetime cost of the vehicle including purchase, fuel and maintenance exceeds 15% of the cost of a non-ZEV. The County needs to show leadership and these vehicles are a very public way to showcase the transition to the low-carbon economy.

HAZ-11.6 What provisions will be made to identify and transport those without transportation and the elderly or disabled who cannot afford or do not have access to AC to cooling centers? Will the cooling centers be open 24/7? One of the problems is that the nights are heating up faster than the days so residents may need to stay overnight. Will animals be allowed in these facilities?

PSPS/Wind Events

PSPS outages – need to be prepared for 3-7 days of electricity outages. These are not considered emergencies by the Red Cross, so they will not staff shelters. If a substantial part of the county is without power, we will need cooling shelters (with power) which can be a mix of day use only and overnight shelters. The centers will need to have robust electrical charging stations to run oxygen tanks and other medical equipment. Medicines may need to be refrigerated and monitored. Have the shelters been retrofitted with generators or are they wired correctly for three-phase generators? Where will generators be located to quickly deploy especially if routes like the 101 freeway are closed?

A power outage may do the following:

- Disrupt communications, water, and transportation
- Close retail businesses, grocery stores, gas stations, ATMs, banks, and other services
- Cause food spoilage and water contamination
- Prevent use of medical devices and operations or medical/senior center facilities

From [Ready LA County](#)

A spike in generator purchases and rentals by people unfamiliar with their safe operation is likely and may result in carbon monoxide poisoning.

7.13 Wildfire – The County should adopt reach codes for fire.

Although Santa Anas have decreased in frequency and severity of extreme wind events, the Santa Ana window or primary season is moving to Nov-Jan. This could result in more fires in this period, particularly in dry years¹.

7.13 P – Should also include infrastructure at risk that the County does not control but relies on.

7.13 Does not include anything related to the more intense rains and flooding expected from less frequent, but more intense storms.

In addition, wildfire has profound effects on storm runoff, erosion, and sedimentation in the complex terrain within Ventura County. For several years following a fire, runoff rates can more than double due to fire-driven changes in soil properties that render it water-repellant and reduce infiltration rates (USGS 2005; USGS 2019). Short-duration, high-intensity precipitation under these conditions increases surface runoff that can cause movement of ash, burned vegetation, soil, rocks, and other debris. This material is scoured from steep channels and moved downslope where it may impact communities or infrastructure below as a debris flow.

9.8 G – The County should adopt a policy to establish parcel-based water budgets to prepare for the implementation of the state water efficiency mandates “Making Water Conservation a Way of Life”. This will ensure that parcels that use more than their fair share are targeted for outreach and punitive measures as necessary to comply with the state law.

10 Economic Vitality

EV-4.2 Economic Development Opportunity

California and Ventura County are well-positioned to be leaders in the development and deployment of greenhouse gas (GHG) reduction solutions that will assist in the transition to a low-carbon economy. Because of California’s size and early adoption of significant environmental controls, Cap & Trade, AB 32, and mandatory organics recycling, the state is already a key player in finding sustainable solutions that include cleaner emission vehicles, energy efficient appliances, and green chemistry requirements. These are also the types of jobs and opportunities we need to develop locally to provide opportunities for our youth and to sustain our region.

The aerospace sector was a huge boost to the Southern California region in the 70s. The Bay area has developed the Silicon Valley, and North Carolina has the Research Triangle. What were the key components that enabled these areas to develop into such well-known powerhouses? How can we leverage the transition to a green economy and position Ventura County as a regional Green Innovation Hub?

[Next 10](#) in November 2014, published the [Regional Clean Economy Series](#) of five reports highlighting five sectors of the state that are forming and nurturing regional clean economy sectors focused on the “core clean economy.” Next 10 is an independent, nonpartisan organization that focuses on the environment, the economy, and the quality of life for all Californians.

¹ Ventura_Climatechange_Review_Oakley.pdf slide 28

They define the core clean economy as, *“businesses that provide the cutting-edge products and services that allow the entire economy to transition away from fossil fuels and use natural resources more efficiently.”*

The regions and core clean economy focus for their reports include:

1. Los Angeles and Orange – advanced transportation
2. Sacramento – electric vehicles, building energy efficiency and solar, waste-to-energy
3. San Diego and Imperial – smart grid and biorenewables
4. San Francisco Bay Area – advanced transportation, energy storage, building energy efficiency
5. San Joaquin Valley – water-agriculture, renewable energy

General Comments

Requested Policy – Each County department should prepare a Climate Action Plan that evaluates their footprint, mitigation measures, risks to their clientele and mitigation or outreach measures that they will adopt. A substantial portion of this may be done by centralized staff. However, the department staff need to understand the issues and incorporate mitigation measures into their routine activities. This could be the Public Works department, the County Health Department. Climate changes will impact their day-to-day operations and they need to start recognizing, planning for and accommodating those changes.

Economic Related issues

Requested Policy - The Pacific Coast Highway in the Malibu region and the 101 between Ventura and Santa Barbara are both vulnerable. Short-term shutdowns would be disruptive. However, if the corridor was closed for multiple months this would significantly impact traffic and may result in substantial economic impacts. Critical infrastructure should be evaluated regardless of ownership and mitigation plans prepared as warranted.

Article related to Ventura County

[Fires, floods and free parking: California's unending fight against climate change](#) – Scott Wilson, Washington Post December 5, 2019

Since 1895, the average temperature in Santa Barbara County has warmed by 4.1 degrees Fahrenheit, according to The Post's analysis. Neighboring Ventura County has heated up even more rapidly. With an average temperature increase of 4.7 degrees Fahrenheit since preindustrial times, Ventura County ranks as the fastest-warming county in the Lower 48 states. [Some climate scientists believe that there is an error in the Post's projections].

Public Health

Climate change has been called “the biggest global health threat of the 21st century” (Costello et al. 2009). In the LA region, the health impacts of climate change are far-reaching, including direct and indirect impacts related to extreme heat, poor air quality, wildfires, infectious diseases, floods and mudslides, mental health concerns, and increasing disparities caused by disproportionate impacts to vulnerable populations. (NOTE: LA Region includes Ventura County in the analysis) ...

The number of extreme heat days in southern California is expected to increase considerably by the middle of the century as a result of climate change (pp. 11–12). Extreme heat is one of the most significant health impacts of climate change and already causes more deaths each year in the United States than floods, storms, and lightning combined (Berko et al. 2014). Exposure to extreme heat can cause direct heat-related illness (heat cramps, heat exhaustion, and heat stroke) and death, and can also exacerbate certain existing medical conditions. Heat waves are associated with increases in the number of people seeking emergency medical care for a variety of health conditions, though the magnitude of this effect depends on many factors, including geographic location, demographics, and availability of adaptive strategies such as air conditioning. During California's 2006 heat wave, there were 16,166

excess emergency department visits and 1,182 excess hospitalizations across the state, with increases in visits for kidney related diseases, diabetes, and cardiovascular disease (Knowlton et al. 2009)².

While all residents are affected to some extent by extreme heat, certain populations are more vulnerable to severe impacts. These include (a) low-income communities and communities of color, which often experience a greater urban heat island effect due to a lack of trees and other vegetation, and which have lower access to air conditioning (Reid et al. 2009a); (b) older adults, young children, people with chronic medical conditions, and people taking certain medications, who are physiologically vulnerable to the effects of heat (Kenny et al. 2010; Reid et al. 2009a; Tsuzuki-Hayakawa, Tochiara, and Ohnaka 1995); and (c) outdoor workers (Bethel and Harger 2014), people experiencing homelessness (Harlan et al. 2013), and others who spend a significant amount of time outside and are more exposed to extreme heat. Unlike cities that have consistently experienced extreme heat in the past, the housing stock in LA is not designed for extreme heat. Approximately 51% of households in the LA-Long Beach area have central air conditioning (American Housing Survey 2015). While California code requires that landlords provide adequate heating facilities in homes, air conditioning is not a requirement. Moreover, the LA region's affordable housing crisis may prevent many renters from being able to move to air-conditioned homes where they would be less impacted by heat. Access to air-conditioned spaces may be additionally limited by factors such as mobility, vehicle ownership, perceptions of neighborhood safety, and distance to transit. These factors can prevent vulnerable populations from implementing adaptive and health protective strategies, such as getting to cooling centers or other air-conditioned locations.³

Do we know the percentage of our houses without AC? Although many resident's dependent on social security or other limited income may not turn on the AC even if they have it in their homes due to financial concerns it would be a starting point.

Climate change may impact mental health through various pathways, including but by no means limited to (a) increases in the frequency and severity of extreme weather events; (b) increasing economic instability; and (c) uncertainty about the future of the planet. Extreme weather events such as fires and floods can have acute mental health impacts. Clear links exist between extreme weather events and anxiety and depression (Kar and Bastia 2006), post-traumatic stress disorder (Neria, Nandi, and Galea 2008; Kar and Bastia 2006), and suicide (Krug et al. 1999).⁴

Public transit infrastructure - *Transit design can mitigate human exposure to extreme heat (p. 44). Exposure to extreme heat can result in heat-related illnesses such as heat cramps, heat stroke, and heat exhaustion, and can also exacerbate pre-existing conditions. Further, extreme heat may discourage transit use altogether. Environmental exposure results from access and waiting. Transit users from areas with low residential density, limited high capacity roadways, and irregular street networks not located along direct paths between major activity centers, are likely to experience prolonged access and/or waiting times (Fraser and Chester 2017a).... The placement of transit stops impacts how long passengers are exposed to the environment, and, coupled with walking, may leave them at risk for negative heat-*

² Fourth Climate Change Assessment – LA Region pg 21

³ Fourth Climate Change Assessment – LA Region pg 22

⁴ Fourth Climate Change Assessment – LA Region pg 24

*related outcomes. Walking times can vary significantly by age and physical condition. They can increase by up to 30% for the slowest age group (Bohannon and Williams Andrews 2011).*⁵

Human health effects of extreme heat

Climate change poses a threat to public health. Heat causes more reported deaths per year on average in the United States than any other weather hazard (NOAA, 2017). In addition to the long-recognized health impacts of extreme heat, hospital admissions and emergency room visits, deaths and other adverse health outcomes have been associated with the warm season in California.

In 2006, dramatic increases in many heat-related illnesses and deaths were reported in California following a record-breaking heat wave. During the summer months, large urbanized areas can experience higher temperatures compared to nonurban outlying regions. "Urban heat islands" create health risks both because of the increased temperatures and because of the enhanced formation of air pollutants. Warming temperatures can amplify the transmission of mosquito-borne diseases (such as West Nile Virus) and make conditions more hospitable for invasive species that may transmit diseases.

While difficult to track using indicators, climate change can impact human well-being in many ways, including injuries and fatalities from extreme events, and respiratory stress from poor air quality (Mellilo et al., 2014).⁶

[Climate Change is a Health Emergency](#) – Coalition of health organizations

[Yale Climate Connections on Health](#)

Information on the health effects of climate change from the [Third National Climate Assessment's Health Chapter](#).

Mental Health

People's anxiety and distress about the implications of climate change are undermining mental health and well-being, according to a new federal report reviewing existing research on the topic. Issued by the U.S. Global Change Research Program, the report is the first time the federally mandated group has published an assessment solely focused on climate change and health.

The report is notable for another reason, too: It contains a chapter devoted to mental health and well-being, a significant step forward for an assessment of this type, says lead author Daniel Dodgen, PhD, a clinical psychologist at the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response. "I think people realize that if you're going to talk about health, you have to talk about mental health," he says.

The report also found that:

Exposure to climate- and weather-related natural disasters can result in mental health consequences such as anxiety, depression and post-traumatic stress disorder. A significant proportion of people affected by those events develop chronic psychological dysfunction.

⁵ Fourth Climate Change Assessment – LA Region pg 50

⁶ Indicators of Climate Change in California pg 161

Some people are at higher risk for mental health consequences from weather-related disasters. Among them are children, pregnant and postpartum women, people with pre-existing mental illness, people who are economically disadvantaged, those who are homeless and first responders to the disaster.

Representations of climate change in the media and popular culture can also influence a person's stress response and mental well-being.

[Climate change is threatening mental health](#) -- American Psychological Association

1. Target populations of Concern
2. Outside workers (including County staff)
3. Children
4. Medically fragile, asthmatics, etc.
5. Pregnant women

[Pregnancy effects](#) According to [research published](#) in *Nature Climate Change*, birth rates were 5% higher on days when the temperature exceeded 90 degrees Fahrenheit. And, perhaps more concerning, births on those days occurred up to two weeks earlier — and 6.1 days earlier on average — than they would have otherwise.

“That’s enough to take somebody from what’s considered to be a pretty healthy pregnancy into a ‘we are somewhat worried’ pregnancy,” said Alan Barreca, a UCLA professor of environment and human health and lead author of the study.... Early delivery could cause long-term harm to the affected infants. Previous research has shown that early deliveries are linked to cognitive differences later in childhood, though it’s unclear whether this applies to heat-related early deliveries specifically. Another study found a direct link between mothers experiencing extreme heat during their third trimester of pregnancy and reduced income for their offspring once they reach adulthood. That might be due in part to earlier deliveries, too.

Air Quality - Hotter future temperatures (Section 2.2) will act to increase surface ozone concentrations both due to chemistry producing more ozone and higher rates of biogenic emissions, while increases of water vapor also influence chemistry by increasing ozone production in already polluted areas (Steiner et al. 2006). It’s been estimated that ozone could increase up to 5-10 parts per billion (ppb) by 2050 in LA (Jacobson 2008; Pfister et al. 2014), and the number of days with ozone over 90 ppb could increase between 22-33 days (Abdullah Mahmud et al. 2008).⁷

Water

Drought

Anticipate a 64% decrease in snowpack by end of century⁸

By virtue of its Mediterranean climate and location along the periphery of the Pacific subtropical high, California experiences warm and dry summers with wet winters. During the wet winter months, which in Southern California typically begin in November and terminate in March, the bulk of precipitation arrives in a few, large storms (Dettinger et al. 2011; Oakley et al. 2018b). Should these storms not arrive due to

⁷ Fourth Climate Change Assessment – LA Region pg 20

⁸ Ventura_Climatechange_Review_Oakley.pdf slide 20

*the presence of a persistent blocking ridge of high pressure in the North Pacific Ocean, precipitation deficits will be large (Cook et al. 2018). These deficits will be superimposed with climatologically high evaporative demands and may be exacerbated by above-normal winter season temperatures. Such dry years occur commonly in California, and multi-year periods of severe drought are not uncommon. However, evidence from various locations in California and throughout the southwestern United States indicates that extreme droughts lasting decades to several centuries have occurred numerous times since the end of the last ice age (e.g., Stine 1994; Benson et al. 2002; Woodhouse et al. 2010; Dingemans et al. 2014). The most recent extreme and persistent droughts occurred during the Medieval period, approximately 800-1000 years ago, with locally warm and dry conditions inferred from paleoproxy evidence provided by sedimentary cores taken from Zaca Lake in the San Rafael Mountains of Santa Barbara County (Dingemans et al. 2014). These droughts indicate that such extreme periods of aridity can occur under natural conditions (i.e., independent of human-driven changes in greenhouse gas concentrations) implying consideration of extended drought is prudent to sustainable water resource management, especially if projected warming increases drought risk Hatchett et al. 2015). Modeling studies of the Central Sierra Nevada have shown these droughts to be of comparable precipitation deficits to the most recent California Statewide drought that began in winter 2012 and ended in January of 2017 (Hatchett et al. 2015). The severity of the recent drought was exacerbated by anomalously warm temperatures driving a surplus in atmospheric evaporative demand and reducing the fraction of precipitation falling as snow in mountain regions (Williams et al. 2015b; Hatchett et al. 2017). The duration and severity of the recent drought varied statewide, with Ventura County being one of the first regions to go into drought conditions and one of the last to emerge (U.S. Drought Monitor 2019).*⁹

Rain

4.2 Implications of Changes in Precipitation

- *The number of dry days increases in the spring and fall (Fig. 4.6); however, there is little change projected in precipitation totals for these seasons (Fig. 4.2), implying some intensification of precipitation in these seasons, although these increases grow with time (Appendix A). Prolonged dry periods are associated with wildfire activity (e.g., Nauslar et al. 2018). With more dry days there may be potential for a longer wildfire season due to additional opportunities for persistence of dry conditions.*
- *Groundwater recharge is projected to decrease in the Southwest in a warming climate (Niraula et al. 2017) and may in part be related to increasing rainfall intensities (Dettinger and Earman 2007). Precipitation intensification at the seasonal to sub-daily timescales may have implications for the methods by which groundwater recharge occurs or how surface water is conveyed, captured, and stored.*
- *Roughly half of models project more frequent days exceeding historic 85th percentile daily precipitation totals (Fig. 4.7), resulting in more days with storm water management concerns if these outcomes are realized.*
- *Intensification of sub-daily precipitation (Figs. 4.8-16) raises concerns for increased flash flooding (Modrick and Georgakakos 2015), landslides, and debris flows (e.g., Oakley et al. 2018a) in a warming climate. In addition to the potential for increased threats to life and property, this may have impacts on infrastructure design and water resource management.*

⁹ Ventura Climate 2019_Bookmarked.pdf pg 51-52

- *Potential for storms with similar atmospheric characteristics to historic events to produce greater event total precipitation due to warming and ability for greater amounts of water vapor to be present in the atmosphere (Figs. 4.17-18; Prein et al. 2017).*

- *With uncertainty in annual precipitation changes, potential for increasing dry days, and increased temperatures (Section 3) and evapotranspiration (Section 5), diversified water supply portfolios will likely allow for more resilient water management (Sterle et al. 2019).¹⁰*

Atmospheric rivers (ARs) show a 20-50% increase in frequency of ARs along west coast and studies suggest fewer, but stronger and longer duration ARs in SoCal.¹¹ ARs can transport ten times the volume of the Mississippi River in water vapor and release a significant amount of the water when they rise over the coastal mountains.

Moreover, the peak season of atmospheric rivers may also lengthen, which could extend the flood-hazard season in California. The current generation of GCMs project a nearly 40% increase in precipitation during atmospheric river events over southern California by the late-21st century under RCP8.5. The number of atmospheric river events is also projected to increase in the future, possibly around a doubling of days by the end of the century (Warner et al. 2015; Hagos et al. 2016; Gao et al. 2015¹²).

Short-duration, high intensity rainfall

Because of their ability to trigger flash floods and mass movements, short duration, high intensity precipitation events pose a major threat to life and property in Ventura County.¹³

Floods 1.5-2x more likely to exceed top 0.05% of historic hourly precipitation¹⁴.

If these rains occur after a significant fire then widespread flooding, mud flows and/or slope failure could result.

Evaporative Demand

Evapotranspiration represents the fluxes, or transfer, of moisture from open water and soil moisture (evaporation), and plant transpiration of water to the atmosphere under ambient conditions....

Historically, positive changes in ETO have been associated with increased water demand (Hobbins and Huntington 2017), increased wildfire activity (Abatzoglou and Williams 2016), and ecosystem impacts (Schwinning and Sala 2004). Thus, with projected ETO increases, the following impacts may be anticipated:

- *All seven models project county-wide increases in annual ETO, with minimum increases of at least 2 in. and maximum increases of approximately 6.5 in, which may impact water demand for crops (Hall et al. 2018), ecosystems, and municipal water use.*

¹⁰ VenturaClimate2019_Bookmarked.pdf pg 31

¹¹ Ventura_Climatechange_Review_Oakley.pdf slide 19

¹² Fourth Climate Change Assessment – LA Region pg 14

¹³ VenturaClimate2019_Bookmarked.pdf pg 6

¹⁴ Ventura_Climate_Projections_Hatchett.pdf slide 35

- *The greater thirst of the atmosphere will deplete soil and plant moisture leading to faster rates of fuel moisture decline and longer periods of dry vegetation. This will increase the susceptibility of landscapes to wildfire and drought, as there is the potential for vegetation to dry more quickly and for longer periods of time.*
- *Reductions in soil moisture associated with increased ETO may reduce runoff production in some areas. The greatest increases in ETO (and thus reductions in soil moisture) are projected to occur in inland elevated terrain.¹⁵*

Although the greatest changes in absolute ETO occur during summer (Fig. 5.2c), percentage-wise, the largest increases (between 4–8%) are observed during fall in terms of spatial extent and magnitude (Fig. 5.3d). This will add stress to vegetation, decrease fuel moisture, and increase fire risk. Dry conditions extending into the late fall and early winter have a greater chance to coincide with Santa Ana winds. These conditions can lead to destructive wildfires such as the December 2017 Thomas Fire (Nauslar et al. 2018) and the November 2018 Woolsey Fire. Spring and summer show similar magnitudes of change and are consistent in the locations of change, though the core regions of greatest percentage increases shift westward from the Santa Clara River watershed (Fig. 5.3b) to the Ventura River watershed (Fig. 5.3c) during summer¹⁶.

Beyond Los Angeles: Imported Water Availability

The LA region is intimately connected to other Western U.S. watersheds. Water supply agencies rely on imported water for a majority of regional water supply (Gold et al 2015; Porse et al. 2017). Three main water sources supply metropolitan LA water agencies: the California Aqueduct as part of the State Water Project, the Colorado River Aqueduct that supplies southern California’s allocation of Colorado River water, and the LA Aqueduct that imports water from the Owens Valley. Imported sources comprise a majority of water demands. For instance, in LA County, imported sources meet 55-60% of annual urban water demands, with the remaining amount supplied by groundwater (35-40%) and recycled water for nonpotable uses such as irrigation. From 2000-2010, these water agencies received an annual average of 810,000 acre-ft from MWD’s imported sources, through in recent years averaging closer to 700,000 acre-ft. The entire American Southwest is expected to see increased drought and reduced availability of future water for agriculture and growth (MacDonald 2010). Such large-scale changes across a broad geography, which includes California, will pose unique risks for each of the massive infrastructure systems that import water to LA.

A substantial portion of Ventura County’s water comes from the State Water Project through MWD.

The State Water Project of California brings water from the northern and western Sierra Nevada mountains south through the Sacramento-San Joaquin Delta to urban and agricultural users in southern California. Historically, the State Water Project contributed the majority of water supply to MWD’s sources (53% from 1976-2010). Numerous studies have documented the likely shifts in precipitation regimes that will result from climate change in California, including reductions in snowpack, advances in the timing of runoff leading to reduced seasonal capture and storage capacity, and hotter coastal and

¹⁵ VenturaClimate2019_Bookmarked.pdf pg 45-46

¹⁶ VenturaClimate2019_Bookmarked.pdf pg 48

inland temperatures increasing demand (Anderson et al. 2007; Brekke et al. 2004; N. L. Miller, Bashford, and Strem 2003; Tanaka et al. 2006; Vicuna and Dracup 2007; Dracup and Vicuna 2005). Additionally, the system of reservoirs will face increasing operational risks in managing more extreme rainfall events and preventing floods (Brekke et al. 2009). Applying such projections in planning can be challenging, given longterm uncertainties and sunk costs in current infrastructure (Groves, Yates, and Tebaldi 2008). Given these long-term likelihoods, the reliability of water deliveries from northern California will likely stir significant continued political debate and uncertainties, especially regarding future management alternatives for critical habitat and conveyance areas of the California Delta (Madani and Lund 2010).¹⁷

CASE STUDY | MANAGING FOR SCARCITY TO WEATHER THE DROUGHT Caryn Mandelbaum

The Inland Empire Utilities Agency (IEUA) water and energy optimization is a great example of climate resiliency in one of the hottest areas of southern California. The IEUA's service area covers 242 square miles where Riverside and San Bernardino Counties meet and where summer temperatures soar to over 110°F (43°C). The IEUA distributes imported and regionally-produced water and provides industrial/municipal wastewater collection and treatment services to more than 830,000 people throughout its nine member agencies.

How, you might ask, did they manage to have surplus water during the state's worst-ever drought? The short answer is they had been managing for scarcity for the past 20 years. Leadership had the foresight to establish a grant writing department that matched every dollar spent with grants for efficiency projects. They invested nearly \$500 million in developing regional water supplies, including state-of-the-art recycled water and groundwater recharge facilities, water use efficiency programs, and infrastructure improvements that avoided leaks.

They also developed close ties with their customers through public affairs staff and communications campaigns. This allowed the water agencies to enforce water budgets for each ratepayer. The budget provided a specific monthly allowance of water, depending on the number of occupants and outdoor footprint. The outdoor space was measured aerially to the square foot. They learned about how their consumption patterns measured up to prior use and that of their neighbors. When customers exceeded their budget, they were penalized and provided with tools for conservation. Armed with information and tools, ratepayers were able to better control their water consumption.

Remarkably, while the IEUA developed surplus water during California's historic drought, they were also becoming one of the most energy-efficient utilities in the state. In 2010, the agency installed the world's largest fuel cell system powered by renewable biogas and reduced energy consumption by nearly 25% upgrading operations. In 2017, they launched an advanced energy storage system designed by Tesla that integrates solar, wind, biogas, and grid resources to optimize renewable generation, reduce demand, and lower energy costs. Together with dynamically controlling consumption, IEUA is on track to go gridless by 2020 with almost no capital investment by the Agency.

¹⁷ Fourth Climate Change Assessment – LA Region pg 62-63

Earthquake/levee collapse threats to water supply

“The problem becomes almost intractable,” he continued. “Keep in mind, one failure took \$100 million to fix, and now we’re looking at scores of failures, so the water managers for the state are petrified of this. They are not sure they can ever get this system up and running, or at the very least, it’s going to take multiple years. So this is pretty serious.”

“The [State Water Project](#) is essential, both from the volume standpoint as it provides a lot of our water, and from a water quality perspective, as the water quality is quite good from it. As currently configured, the levees are highly vulnerable, not necessarily for San Andreas events but for the local events directly beneath. The repair time is uncertain; it’s almost certainly very long. They don’t even know how long it would take, and I think by any measure, it is not resilient, and this is the problem.”

<https://mavensnotebook.com/2018/01/03/earthquake-resilience-southern-californias-water-distribution-systems/>

Making Water Conservation a California Way of Life

“Making Water Conservation a California Way of Life” (Governor’s Executive Order B-37-16) replaces and increases water conservation requirements. AB 1668 (Friedman, 2018) and SB 606 (Hertzberg, 2018) implement various provisions of the Governor’s Executive Order including the establishment of long-term urban water use efficiency standards, an indoor water budget of 55 gpcd which decrease over time, and outdoor allocations based on irrigated or irrigable landscaped area.

Based on industry recommendations the state set a provisional standard for indoor water use of 55 gallons per person, per day. This standard was based on a report produced by the Water Research Foundation. To ensure that this standard is reasonable the state will be funding a research study to determine an appropriate budget.

Also, the state is developing an outdoor water usage standard based on irrigated area and other factors like local climate conditions.

Based on these standards, all water districts will be given a maximum water budget for their agency. The budgets are being developed currently, with a draft budget expected January 2021, and the final budget at the end of 2021. While the state is developing the standards, we will be developing the tools and processes necessary to track and stay within the budget.

Proposals also include a requirement for each agency to develop a five-year drought plan, including conservation strategies necessary to achieve conservation levels that range from ten percent up to, and beyond, fifty percent reduction in water usage.

Each agency must document the steps to be taken in the event of a water conservation reduction of:

- 10%
- 20%
- 30%
- 40%
- 50%
- Beyond 50%

How climate change could threaten our water supply

Published 11:00 a.m. PT July 8, 2017 |

Gov. Jerry Brown announces that California will host a global climate summit.

SACRAMENTO - When it comes to California and climate change, the predictions are staggering: coastal airports besieged by floodwaters, entire beaches disappearing as sea levels rise.

Another disturbing scenario is brewing inland, in the sleepy backwaters of the Sacramento-San Joaquin Delta. It's a threat to the Delta's ecosystem that could swallow up a significant portion of California's water supply.

Scientists from government and academia say rising sea levels caused by climate change will bring more saltwater into the Delta, the hub of California's water-delivery network. As a result, millions of gallons of fresh water will have to be flushed through the Delta, and out into the ocean, to keep salinity from inundating the massive pumping stations near Tracy. **That will leave less water available for San Joaquin Valley farmers and the 19 million Southern Californians and Bay Area residents who depend on Delta water — eventually as much as 475,000 acre-feet of water each year, enough to fill Folsom Lake halfway, according to one study by the Public Policy Institute of California.**

"With rising sea levels, with climate change, that creates additional pressure coming in from the ocean," said Michael Anderson, the state's climatologist, in a recent interview. "Sea level rise is going to become more of an influence."

It figures to become a pocketbook issue for practically any Californian who drinks water that runs through the Delta. A 2010 study by scientists from the University of California, Davis said rising seas, coupled with the inundation of some islands in the western Delta, will translate into higher costs for purifying water for human use. The additional cost could go as high as \$1 billion a year, "making the Delta less desirable as a conventional water source," the study said.

That cost doesn't include the \$17.1 billion Gov. Jerry Brown proposes to spend on the Delta tunnels, his controversial plan for reshaping the estuary's plumbing system.

Brown's administration is heralding the threat from climate change as one of the reasons for building the tunnels, which would increase water bills for urban Southern Californians and San Joaquin Valley farmers. An environmental impact statement released by state and federal officials in December said the tunnels are needed to prevent a significant cutback in water deliveries from the Delta.

Without the tunnels, the ability to pump water south "will be reduced under future climate and sea level rise conditions," state and federal officials wrote. "Delta exports would be reduced by as much as 25 percent by the end of the century."

Complicating the issue, climate scientists also agree a warmer climate will mean more rain and less snow. The Sierra snowpack serves as a giant reservoir that naturally releases water long after the rainy season ends. If more of California's precipitation falls as rain instead of snow, much of that water will flow to the ocean in winter and spring, while it's still raining. That will leave less water available in summer to satisfy human needs and to offset salinity in the Delta.

Saltwater is already a problem at the Contra Costa Water District, which serves 500,000 residents in eastern and central Contra Costa County. Its location near the spot where water becomes brackish in the Delta puts Contra Costa on the front lines of the battle against salinity from the ocean. One of its four main intake pipes at the western edge of the Delta is precariously close to the point where water becomes too salty to drink without substantial treatment.

The agency has invested millions on intake pipes that are further and further away from the ocean. In 1997 it opened an intake along the Old River closer to the heart of the Delta. In 2010 it spent \$80 million building another intake a few miles east of the Old River facility. It considered building a desalination plant a few years ago, but the project, estimated to cost \$175 million, has been tabled.

Contra Costa's main weapon against salinity is Los Vaqueros Reservoir, a 19-year-old man-made lake. Though it's in the southwest Delta, it feeds off a pipeline from a San Joaquin River tributary from the east. Its purpose is to hold 160,000 acre-feet of fresh water that Contra Costa uses to dilute the supply that washes in from the Pacific.

"Things can get very salty for prolonged periods of time," said Maureen Martin, the agency's senior water resources specialist, during a recent tour of Los Vaqueros.

Contra Costa has spent nearly \$560 million on Los Vaqueros, and it isn't done yet. Working with 11 other Bay Area agencies, it's developing a plan to expand Los Vaqueros' capacity by two-thirds, an \$800 million project.

Martin said her agency doesn't consider sea-level rise "an imminent threat to Delta water quality." But the scientific projections are influencing Contra Costa's long-term planning on Los Vaqueros and other facilities.

Climate change "would probably cause the Delta to become saltier," she said. If climatologists are correct, the just-ended drought gave Delta residents a taste of things to come. In 2015, when the drought was at its worst and relatively little fresh water was trickling through the estuary, state officials worried about a surge of saltwater gushing in. The Department of Water Resources built a temporary rock barrier on the West False River, near the heart of the Delta, to hold back the salty ocean water.

The price was \$37 million, including the expense of removing the 150,000 tons of rocks when the rainy season started. State officials declared it a successful investment. The barrier helped the state avoid releasing 90,000 acre-feet of water from upstream reservoirs to flush out the salinity.

Over the long haul, state officials believe keeping the salt at bay will be crucial to the viability of the State Water Project and the federal government's Central Valley Project, the delivery networks that move much of Northern California's water through the Delta to the water agencies of Southern California and the San Joaquin Valley.

It's a task that could become increasingly difficult as sea levels rise. Not only will higher waters bring a generally higher volume of salt into the estuary, they will put more stress on the 1,100 miles of levees protecting Delta farms and homes. A levee breach could inundate the SWP and CVP pumping stations with saltwater, forcing them to shut down and reduce operations.

It represents one of the state's arguments for the tunnels project: By diverting a portion of the Sacramento River's flow at Courtland, at the northern fringe of the Delta, and piping it directly to the

Tracy pumps, the state and federal water projects can sidestep much of the saltwater and keep pumping water more reliably.

“The location of the north Delta diversion facility is further inland, making it less vulnerable to salinity intrusion,” officials wrote in the environmental report last December.

Tunnels opponents aren’t swayed by that argument.

They don’t dispute that rising seas will bring more salt to the Delta. But they say the tunnels would actually worsen the problem and make Delta water dangerously salty for farming and drinking water needs. By pulling some of the fresh water out of the Sacramento at the upstream location, opponents fear it will increase the salt concentration in the remaining water flowing through the Delta. In that respect, they’re insulted that the threat from global warming is being used to justify the project.

“Whatever the truth might be about the extent or arrival of (climate) changes, the theory is being used as one more arrow shot at us,” said John Herrick, attorney for the South Delta Water Agency.

“There isn’t a shadow of a doubt in our minds that once they’re able to take water from up north, they’d doom us,” he added.

Distributed by Tribune Content Agency

Simmons, Carrie

From: Jenn Foster <jenniferfoster7317@yahoo.com>
Sent: Thursday, February 27, 2020 12:45 PM
To: General Plan Update
Subject: General Plan 2020 Updates

Follow Up Flag: Follow up
Flag Status: Completed

Hello,

I would urge the County to include how the agency would establish a "preponderance of evidence that the resource is not archaeologically or culturally significant." How would this be done, by whom would it be done, and could any decisions be appealed?

The number of archaeological sites in Ventura County is decreasing at a rapid rate and the definition of archaeological significance should be revised, "that all Native American archaeological sites, should be considered significant since the prehistoric identity of the Indigenous groups is tied solely to archaeological evidence." Loss of any sites would irrevocably result in loss of significant portions of their culture.

Thank you for your consideration.

Simmons, Carrie

From: Jen Hernandez-Munoz <jhernandez@cecmail.org>
Sent: Thursday, February 27, 2020 12:48 PM
To: General Plan Update; Bennett, Steve; Parks, Linda; Long, Kelly; Supervisor Huber; Zaragoza, John
Cc: Sigrid Wright; Michael Chiacos; Cameron Gray; Allegra Roth
Subject: Comments - Ventura County 2040 General Plan - Draft Environmental Impact Report
Attachments: CEC-SB VC2040 DEIR Comments to the Board.docx

Follow Up Flag: Follow up
Flag Status: Completed

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Chair Bennett and Supervisors,

Please find attached Community Environmental Council's comments regarding the Ventura County General Plan Draft Environmental Impact Report. We appreciate your efforts in this endeavor and the opportunity to share our feedback with you.

Sincerely,

Jennifer Hernández-Muñoz
she/her/hers | they/them/theirs
Energy & Climate Program Associate

[Community Environmental Council](#)

O: (805) 963-0583 x102

C: (805) 402-7302 (preferred)

Community Environmental Council creates regional solutions to climate change.

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February 27, 2020

Board of Supervisors, Ventura County
Ventura County Government Center
Hall of Administration
800 S. Victoria Avenue
Ventura, CA 93009

Re: Ventura County 2040 General Plan: Draft Environmental Impact Report

Dear Chair Bennett and Supervisors,

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Ventura County General Plan Update. The Community Environmental Council (CEC) is working with dozens of partners on many climate solution projects throughout Ventura County, including electric vehicle readiness, energy efficiency planning, renewable energy and energy storage development, food waste reduction, and carbon farming and sequestration activities.

Ventura County is the fastest warming county in the lower 48 United States, and is already experiencing a range of devastating and expensive impacts¹. While language in the DEIR is careful to point out that federal policy lacks support for strong emissions regulation and that most local GHG emissions will come from current development, the State of California is leading with innovative programs to drive down emissions and the County should implement the most effective local policies that will curb emissions, mitigate impacts, and build community resilience in the current climate crisis.

CEC strongly urges the County to set higher carbon reduction goals, as well as incorporate a carbon neutrality goal at or before 2045, as guided by Executive Order B-55-18, mandating that California reaches carbon neutrality by 2045. CEC suggests the County of Ventura adopt a similar goal as the County of Santa Barbara, planning for a 50% reduction of greenhouse gas emissions from 1990 levels by 2030. CEC also encourages the County to set aggressive carbon neutrality goals, such as the City of San Luis Obispo's current Climate Action Plan seeking carbon neutrality by 2035.

¹ <https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-california/>

As acknowledged in the draft General Plan (page 4.8-40), the County will not reach the goal of reducing emissions to 41.3% of 2015 baseline levels by 2030 through the policies outlined. Although the County's goal is to reach the 2030 goals for GHG emissions reductions, the DEIR only quantifies approximately 30% of those emissions reductions and leaves the rest to mostly voluntary actions. Further, the DEIR indicates that the climate impacts of GHG emissions resulting from growth over the next 20 years will be "significant and unavoidable", yet presents very few quantifiable mitigation actions to reduce them. As a result, the County is at a very high risk for failing to meet its own GHG emissions reduction goals, the state's goals of Carbon Neutrality by 2045, and for experiencing increased climate impacts.

In response, CEC suggests modifying existing policies or creating new policies to include more quantifiable targets to support the following:

- An oil and gas tax on new and existing operations that seeks to slowly phase out oil and gas production by 2045, in line with State carbon neutrality goals, while creating revenue to fund climate action programs
- Parking and pricing policies that disincentivize driving
- Electrification of light duty and medium-heavy duty vehicles
- Increased zero-emissions vehicle miles traveled
- Electrification of the county fleet
- An actionable food waste reduction plan that supports SB 1383
- An unincorporated county zero waste goal
- Restrictions on new oil and gas development
- Elimination of existing oil and gas operations within environmental justice communities
- Programs to sequester carbon in our natural and working lands

Adopting these enforceable policies will have a measurable impact that can be accurately assessed in the EIR.

In 2019, CEC partnered with the Ventura County Regional Energy Alliance and the Ventura County Air Pollution Control District to develop an Electric Vehicle Readiness Blueprint² that outlined targets and strategies for a county-wide transition to zero emissions vehicles in-line with State mandates. We suggest that the County refer to this document as a reasonable guide for setting policy goals with quantifiable impacts. The County can leverage its role as an employer of approximately 8,000 people to enact measures such as building charging stations at all county facilities and establishing programs to help employees adopt EVs at a faster rate than the general population.

The County can lead by example by emulating the State's mandates for zero emissions vehicles in its general services department³. The County can also look to the City of San Luis Obispo's goal of replacing

² <https://www.vcenergy.org/electric-vehicle-blueprint/>

³ <https://green.ca.gov/fleet/about/initiatives/>



26 West Anapamu St., 2nd Floor, Santa Barbara, CA 93101
tel: 805.963.0583 fax: 805.962.9080 • www.cecsb.org

40% of VMT with electric miles by 2030 for setting its own similar target in the unincorporated County areas.

As it stands, Appendix B is not an actionable climate action plan. It kicks the can down the road by proposing a Climate Emergency Council (CEC), established under COS-CC, to consider future policies. Instead, actionable policies should be included by the County through this planning process.

CEC would like to recognize the efforts of the general plan team to incorporate Environmental Justice themes throughout the draft General Plan; however, there is a glaring lack of accountability to Ventura County's environmental justice and frontline communities in the DEIR as well as a lack of prioritizing projects that would correct these historic injustices. Specifically, there is no analysis or mitigation strategy to support the plan's Environmental Justice guiding principle to "...protect disadvantaged communities from a disproportionate burden posed by toxic exposure and risk...". Failure to deeply analyze which communities face disproportionate impacts, beyond the SB 244 definition of a "disadvantaged unincorporated community" creates a gap in addressing their needs outside of the parameters of basic environmental protection outlined in LU-17.3.

CEC recommends that the County establish a more substantial, locally relevant definition of an Environmental Justice Community with both qualitative and quantitative elements. The County should also prioritize specific mitigation measures for disproportionately impacted communities, or set enhanced mitigated measures for growth in those communities, and incorporate them into the EIR.

While the draft plan and draft EIR are stated to be in line with state mandates for GHG emissions reductions, they fall short of meeting the bold and drastic changes needed to help our communities be truly adaptive and resilient. The draft General Plan fails to adequately mitigate for climate change impacts, finding a significant and avoidable impact. Other communities have adopted more complete Climate Action Plans that calculate mitigation measure that allow these agencies to reduce their emissions in line with State goals. The County of Ventura's planning fails in these areas and needs significant revision before the EIR can be certified and the General Plan adopted.

Sincerely,

A handwritten signature in black ink, appearing to read "Sigrid Wright", written over a faint dotted line.

Sigrid Wright

Executive Director, Community Environmental Council

Simmons, Carrie

From: Ventura County Archaeological <vcas.arch@gmail.com>
Sent: Thursday, February 27, 2020 1:26 PM
To: General Plan Update
Cc: Curtis, Susan; julie swift
Subject: VC2050 General Plan

Follow Up Flag: Follow up
Flag Status: Flagged

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Dear Ms. Curtis:

Regarding the proposed VC2040 General Plan, we request the County to include how the agency would establish a preponderance of evidence that the resource is not archaeologically or culturally significant. How would this be done and could it be appealed?

The number of archaeological sites in Ventura County is decreasing at a rapid rate and the definition of archaeological significance should be revised, "that all Native American archaeological sites, should be considered significant since the prehistoric identity of the Indigenous groups is tied solely to archaeological evidence." Loss of any sites would irrevocably result in loss of significant portions of their culture.

Thank you for your consideration.

Respectfully,

Julie Swift
President-Elect
Ventura County Archaeological Society
VCAS.arch@gmail.com or julie_swift@ymail.com <https://www.venturacountyarchaeologicalsociety.com>

Simmons, Carrie

From: bev <bevg@hvwnonline.com>
Sent: Thursday, February 27, 2020 1:26 PM
To: Curtis, Susan; General Plan Update
Subject: Letter
Attachments: doc02310820200227132001.pdf; doc02310920200227132011.pdf

Follow Up Flag: Follow up
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[Please see attached letter.](#)

[Thank you.](#)

[Bill Kendall](#)

VIA ELECTRONIC MAIL: GeneralPlanUpdate@ventura.org

February 25, 2020

Ventura County Board of Supervisors
Attn: RMA Planning Division
General Plan Update
800 Victoria Avenue L#1740
Ventura, California 93009-1740

Dear Board of Supervisors and Staff:

We are writing this letter to urge the Board of Supervisors to reconsider moving forward with the Draft General Plan EIR. The draft EIR has been accelerated to the point that too many issues and impacts have not been properly addressed or studied. These impacts and the corresponding mitigation measures will have severe impacts to land owners and especially those, like us in the agricultural industry and other productive economic segments.

Our family has been involved in the agricultural industry for more than 100 years in Ventura County. We have owned numerous land holdings that remain in the family to this date. We have farmed throughout Ventura County and hope to continue to do so in the future.

The Draft EIR is deficient on many levels. CEQA requires that all mitigation measures must be technically and economically feasible. Numerous proposed mitigation measures are neither. We have in the past attempted to identify land and any owners that would be open to sell their development rights for land that was converting from agricultural to commercial use. Not only did we not find anyone that would do so, no one would even quote a price. The only positive response from numerous land owners were that you can buy my property for full market value and then you can do what you want. There is not a project that can be built by adding double land cost to the equation. This was very recently experienced based on proposed policies at LAFCo. These policies were eventually not enacted due to the inability to purchase development rights in an economical feasible manner. This was when LAFCo was contemplating an acre for acre ag preserve. The new policy that is proposed in the 2040 General Plan is requiring 2 acres for every 1 acre of land converted from ag to any other use. This will eliminate the ability to add any new required ag buildings or even farm worker housing. The Draft EIR must study these impacts, since they are not feasible.

The Draft EIR also deals with water in a manner that is not properly studied. There is no analysis on increased water costs and diminishing availability of water. Without reasonable water costs and supply, there is no agricultural industry.

The General Plan indicates that agriculture is a high priority in the County. However, new policies and requirements in the General Plan add additional mitigation measures that will make ag virtually

impossible. These include new setbacks, limiting types of fumigants pesticides and fertilizers. The General Plan also requires the conversion of all farm equipment to be all electric. Again, not feasible. The costs to purchase new pumps, farm equipment and other existing fuel using equipment will increase operational costs to a point that the County crops will not be competitive in the open market. These new mitigation measures are not sufficiently studied and again are not economically feasible.

The Draft EIR is extremely difficult to read and understand. The background reports are lacking in depth of what has been studied other than numerous general statements and very poor mapping. Detailed studies must be added to sufficiently identify impacts and the related mitigation measures for both direct and indirect impacts on the agricultural industry. It is our understanding that reports and studies need to be timely prepared. However numerous studies are older than 5 years. Not timely.

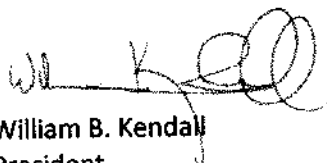
After numerous devastating wildfires over the last few years, which significantly impacted ag, the General Plan continues to lay out limiting mitigation measures for fire prevention. The Wildlife corridor eliminates any ag operation or fire prevention in the proposed corridor areas. This is also a major concern not studied in the Draft EIR.

The Draft EIR for the 2040 General plan does not provide adequate analysis for the expansion of permanent bike paths and pedestrian walking trails throughout the County. These impacts are very severe due to constant conflicts from trail users and ag operations. Spraying, dust, odors from ag operations, along with impacts created by the trail users. These are usually theft, vandalism, litter and pet waste. The proposed mitigation measures require additional setbacks from these trails which renders additional land unusable for ag operations.

In addition to the above comments on the agricultural aspects and related land use concerns of the DEIR, the undersigned is also a mineral owner directly interested in the impacts on oil and gas production of the DEIR and related General Plan 2040 proposed provisions. In these documents there is a total failure to address the economic impacts of the various policies proposed in violation of the requirements for this process, including but not limited to the loss of royalty income to a large group of County residents. I join in the detailed comments on the various deficiencies and concerns identified in the DEIR as described in the concurrent submissions on behalf of Aera Energy and other operators delivered this week to the County.

Please look at the long-term consequences of these General Plan policies and mitigation measures. We formally request additional studies and a revised Draft EIR that will properly look at these and many more issues. The DEIR must be corrected with details of the revisions. Then it can be recirculated.

Sincerely,



William B. Kendall
President
Epic Group

Simmons, Carrie

From: Chad Christensen <chad.christensen@mrca.ca.gov>
Sent: Thursday, February 27, 2020 1:37 PM
To: General Plan Update; Curtis, Susan
Cc: Paul Edelman
Subject: SMMC comment letter regarding VC General Plan update
Attachments: SMMC 02-24-20 Item 10(b) Com Ltr VC GenPlan.pdf

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Good afternoon,

Please find attached a comment letter from the Santa Monica Mountains Conservancy regarding the County of Ventura's Draft 2040 General Plan update.

Best regards,
Chad

Chad Christensen
Project Analyst
Mountains Recreation and Conservation Authority
26800 Mulholland Highway
Calabasas, California 91302
310-589-3230, ext.121

SANTA MONICA MOUNTAINS CONSERVANCY

Los Angeles River Center & Gardens
570 West Avenue Twenty-six, Suite 100
Los Angeles, California 90065
(323) 221-8900



February 24, 2020

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L #1740
Ventura, California 93009-1740

**Draft Programmatic Environmental Impact Report for the Ventura
County Draft 2040 General Plan (PL17-0141)**

Dear Ms. Curtis:

The Santa Monica Mountains Conservancy (Conservancy) supports much of the Ventura County (County) proposed Draft 2040 General Plan Update as analyzed in the Draft Environmental Impact Report (draft EIR).

Specifically, the Conservancy supports the County's inclusion of new policies established by the County's Wildlife Corridor Policy as related to Conservation and Open Space Elements COS-1.3 *Wildlife Corridor Crossing Structures*, COS-1.4 *Consideration of Impacts to Wildlife Movement*, and COS-1.5 *Development Within Habitat Connectivity and Wildlife Corridors*.

The Conservancy also commends the County for proposing COS-1.6 *Discretionary Development on Hillsides and Slopes* that would require development on slopes greater than 20-percent to be sited and designed in a manner to avoid significant impacts to sensitive biological resources to the extent feasible and COS-1.8 *Bridge Crossing Design* to require new or modified road crossings over streams, wetlands, and/or riparian habitat to site bridge columns outside the riparian habitat areas, when feasible.

The inclusion of COS-1.15 *Countywide Tree Planting* to establish and support a countywide target to plan two million trees throughout the County by 2040 is commendable and an opportunity for community engagement and cooperation among public agencies, private organizations, and local businesses to help mitigate against concurrent impacts of climate change.

Further, the Conservancy fully supports the Public Facilities, Services, and Infrastructure Element PFS-10: To develop and maintain a comprehensive system of parklands and recreational facilities that meet the active and passive recreational needs of residents and visitors, as funding is available. The Conservancy has been dedicated to this goal since its

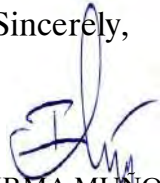
Ventura County Resource Management Agency, Planning Division
Draft Programmatic Environmental Impact Report for the Ventura County Draft 2040
General Plan (PL17-0141)
February 24, 2020
Page 2

inception in 1980 and looks forward to coordinating with the County to help expand trails, parklands, and accessible amenities in the western Santa Monica Mountains and within the Rim of the Valley Trail Corridor.

The Conservancy also recognizes the constraints that specific zoning classifications impose on “using” open space lands as parks and recreational opportunities. Thus, the Conservancy also supports the proposed *Implementation Program N* to establish a new Open Space zone for public lands that will be limited to parks and recreational uses.

Thank you for your consideration. Should you have any questions, please contact Paul Edelman, Deputy Director Natural Resources and Planning, at (310) 589-3200 ext. 128, edelman@smmc.ca.gov, or at the above letterhead address.

Sincerely,

A handwritten signature in blue ink, appearing to read 'IRMA MUNOZ', with a large, stylized flourish above the name.

IRMA MUNOZ
Chairperson

#



Tina Rasnow (805) 236-0266

February 26, 2020

Ventura County Board of Supervisors
Hall of Administration
800 South Victoria Ave.
Ventura, CA 93009

Re: General Plan Amendment Environmental Impact Report

Dear Honorable Members of the Board of Supervisors:

We are heartened to see more comprehensive environmental protection measures included the General Plan objectives, as outlined in the Environmental Impact Report, but disappointed that so much focus is still placed on aesthetics as opposed to true health and safety concerns. We also feel that the General Plan Amendment falls short of tackling the full extent of the climate crisis and its likely impact on Ventura County. The new General Plan should provide a blueprint to guide us into the future, but in elevating aesthetics to equal standing with true health and safety issues, it fails as a roadmap to navigate the growing environmental and social challenges of the future.

1. For example, when it comes to telecommunications towers, the emphasis on disguising or hiding them, including protecting the view of the ridgelines, does a great disservice to community health, because cell towers are safest when located away from people. Ridgelines that provide excellent coverage, but are not located near schools, businesses or homes are an ideal location for telecommunications towers, far safer than flagpoles, church steeples, and strip mall facades. This is particularly true as the cell phone carriers migrate to 5G which emits far more EMF and RF than the earlier versions of transmission.

2. While maintaining open space is important, the SOAR initiative allows those with existing homes to veto new development, particularly low income and affordable housing, which is desperately needed to provide shelter for our service worker sector. If lower wage earners cannot afford to live near where they work, the commute required increases congestion and air pollution, deteriorating the quality of life for the whole community.

3. Given that the General Plan is projected to take us to 2040, and the existential threat the climate crises poses, we think far more needs to be done to cease fossil fuel extraction and transition to 100% renewables in the short term. We need to have a comprehensive public transit system based on renewable energy, methods for harvesting rain water so

less storm water runoff goes to the sea, and planning on what portions of our coast line we may have to abandon to sea level rise.

4. The book, *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*, edited by Paul Hawken (Penguin Books, 2017), compiles the results of research from hundreds of the world's top scientists and climate experts, and identifies specific actions that governments and local communities can take to reverse global warming. Our General Plan should incorporate those drawdown solutions that can be undertaken on a local level, many of which are surprisingly simple. For example, reduced food waste and encouraging people to adopt a more plant-rich diet can have a profound effect on reducing green house gasses. So can good family planning clinics and incentives to reduce procreation rates. A most effective and inexpensive drawdown action would be to implement regenerative agricultural methods here in Ventura County. By transitioning away from chemical fertilizer and pesticide use, no-till land management, and building soil with organic material, including biochar, we can sequester carbon in the soil while building its quality and productivity, eliminating contamination of ground and surface water, and improving air quality.

5. We do not have to invent solutions to address the current and growing environmental and social challenges. Other forward thinking regions are tackling these challenges and can provide us with a template that can be tailored to our own local conditions. For example, on Salt Spring Island in British Columbia, the community is faced with a housing crisis similar to our own in Ventura County. Strict development restrictions and limited residential units have priced housing beyond the reach of many residents. Meror Krayenhoff, a global consultant on rammed earth building methods and featured on *The Nature of Things* with David Suzuki, suggested that a compliance driven, as opposed to vision driven, policy paradigm can result in anarchic, subversive response when the populace thumbs their noses at regulations that don't represent the will and needs of the population. He proposes a number of innovative solutions, including encouraging the use of local, renewable materials in building. Ventura County, with access to rock, sand, straw bales and other renewables, can become a beacon for permitted home building solutions for the rest of California, and the nation. Green projects could get reduced permitting fees and priority in the permit queue, with a single point advisor. For example, composting toilets should not only be permitted, but encouraged, as it is wasteful in the extreme to use precious potable water to flush away human waste.

6. We suggest Ventura County consider concepts implemented elsewhere, such as Seattle granting a 25-30% increase in allowable floor area and increased height limits for Living Building Challenge ("LBC") projects (See <https://living-future.org/lbc/>); or New Zealand's SIREWALL community center project, which made approval contingent upon demonstrating reconciliation with Maoris, training opportunities for youth, a high environmental standard that the community (of all ages) supported, that it would elevate the well-being of the community, and encourage responsible tourism. (See https://www.nzherald.co.nz/northern-advocate/news/article.cfm?c_id=1503450&objectid=12076863)

7. Ventura County can embrace LBC requirements that buildings be net positive in terms of water, energy, sewage and liquid waste, and contain no red-listed toxic materials, express beauty in terms of spirit, inspiration, and education, create health and happiness through such things as biophilia, among other inspiring attributes.

8. While the General Plan is intended to cover the length of a generation, it would not be at all unsound to at least contemplate the next seven generations, consistent with indigenous cultural tradition. Measuring progress with such a long term view will require a different framework than juggling one climate or housing emergency after another. Priorities and decision-making can be measured in a rational and holistic manner, with careful thought for the generations yet to come.

9. The General Plan should explicitly reflect the County's Climate Action Plan and its evolution. Achieving net zero CO2 emissions (and sequestration) will require a rapid ending to oil and natural gas extraction (and certainly no expansion, no granting new leases, new pipeline permits, etc. It should encourage green energy generation and storage in both distributed and centralized manners.

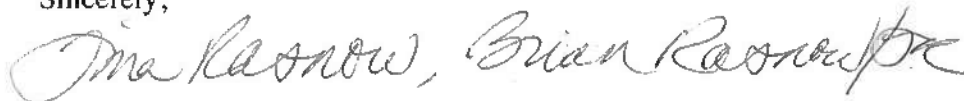
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11. Our General Plan needs to steer our county toward good land and resource stewardship. To recap, aesthetics play far too important a role in our land use planning, particularly because “beauty is in the eye of the beholder,” and what one person sees as creative genius, another sees as a monstrosity. Land use regulations should be focused on environmental safeguards that protect air, water, and soil while at the same time meeting the food and shelter needs of our communities.

12. As Meror Krayenhoff has stated, “We are in a time when the scale of the emergencies we face need to be addressed with solutions of a corresponding scale. These emergencies also have urgency. . . . [W]ithout governance that can act with pace, boldness, courage and the power to implement, we are wasting our time.” We hope that Ventura County acts with such pace and boldness to adopt a General Plan that guides us in a new direction of carbon drawdown, while promoting innovation in design, building, and conservation for generations to come.

Thank you for your kind consideration.

Sincerely,



Tina Rasnow and Dr. Brian Rasnow on behalf of the
Rasnow Family

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 8:36 AM
To: Simmons, Carrie
Subject: FW: 2040 General Plan Draft EIR Comment
Attachments: Ag13-Ag conversion.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740 Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org For online permits and property information,
visit VC Citizen Access

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subject to disclosure.

-----Original Message-----

From: Toril Raymond <toril.raymond@yahoo.com>
Sent: Thursday, February 27, 2020 8:30 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 General Plan Draft EIR Comment

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Sent from my iPhone

The County did not conduct a complete analysis of impacts in regard to conversion of farmland.

The EIR erroneously and without supporting evidence states "the General Plan would not result in any other changes that due to location and nature would result in conversion of farmland."

This statement is simply not true and the EIR itself contradicts this statement.

The EIR acknowledges the impacts of both economic burdens and decrease in water supply for irrigation (page 4.2-3). As water supplies decrease and costs to obtain that water increase, land will be removed from agricultural use. This is a direct significant impact that will convert ag land.

Actual issues impacting agriculture in Ventura County that contribute to the conversion of ag land are:

- 1) water
- 2) economics (extremely expensive area to do ag)
- 3) lack of farmworker supply and housing
- 4) increased regulatory burden from increasing compatibility issues from urban/ag interface.

County analyzed NONE of these issues. And proposed no mitigation to address any of these issues.

The EIR needs to be corrected and recirculated.

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 9:16 AM
To: Simmons, Carrie
Subject: FW: 2040 Ventura County General Plan
Attachments: County GP Comment Letter - McLoughlin Family Committee.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division P. (805) 654-2497 | F. (805) 654-2509
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-----Original Message-----

From: Toril Raymond <p_raymond@sbcglobal.net>
Sent: Thursday, February 27, 2020 9:14 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: 2040 Ventura County General Plan

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Please see attached Letter.

Sincerely,
Pat Peters

Sent from my iPhone

Ventura County Resource Management Agency, Planning Division
Attn: Susan Curtis, Manager, General Plan Update Section
800 South Victoria Avenue, L#1740
Ventura, CA 93009-1740

Re: Comments on Ventura County General Plan DEIR

Dear Ms. Curtis:

I represent and serve on the McLoughlin Family Committee, a group of family members that own approximately 300 acres of agricultural property off of Olivas Park Road in the County of Ventura, in proximity to the City of Ventura.

The McLoughlin family has farmed this land for generations. It remains our desire to continue this legacy. However, in the face of never-ending changes to the regulatory environment, we again find ourselves attempting to ascertain how new policies and programs as proposed in the draft 2040 General Plan will impact and challenge our ability to serve as stewards of this heritage.

It had been our hope that the DEIR would provide some clarity and insight into how the new policies and programs within the revised General Plan would impact our farming operation. However, that is not the case. Simply said, we believe the General Plan Update and subsequent Environmental Impact Report fail to adequately analyze or study impacts on the farming industry.

With that said, we would like to specifically present the following:

- The Background report Table 6-26: Transportation Department Planned Capital Projects lists sections of roadways the County plans for expanded capacity or widening, along with the scope of those enhancements. It also covers in length the plan to add bike paths and bike lanes in accordance with existing County wayfarer plans. However, the DEIR never analyzes the loss of farmland resulting from these changes in infrastructure – it's not even mentioned as a possibility in the DEIR.

Olivas Park Road between Victoria and Harbor is listed as one of the areas planned for road widening, a stretch of roadway that borders the entire eastern portion of our farmland and property. While the impact on our farming operation and financial losses due to property loss are clearly quantifiable, the report fails to list or quantify these impacts.

- In Section 3-8, The DEIR states that because there will be no “substantive” change to the agricultural, open space, or rural designations, the General Plan Update (GPU) will be consistent with SOAR. However, no further details beyond this conclusory statement is provided. There is no way for the reader to come to his or her own conclusion on whether the GPU will result in inconsistencies with SOAR that might lead to physical environmental impacts. There is no description of the changes to the Agriculture, Open Space, and Rural policies to determine whether they are in fact non-substantive.

Given the length and breath of the Draft General Plan update and CEQA analysis, we made an attempt to focus our initial review and subsequent comments to issues specific to agriculture and farming. However, it's clear that the 2040 General Plan will impact the Ventura County local economy across

sectors – all of which influence the ability to live and work in this region. The DEIR's lack of analysis of those economic impacts, calls into question the legitimacy of both the draft General Plan update, and the CEQA analysis. As such, we respectfully request that the DEIR be recirculated in the hopes that further study will resolve these shortcomings.

I appreciate your consideration.

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 9:33 AM
To: Simmons, Carrie
Subject: FW: Board of Supervisor EIR Report Letter
Attachments: 20200227091711646.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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From: Johnny Lopez <jclopez@vertical-wellness.com>
Sent: Thursday, February 27, 2020 9:26 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Cc: Elyse Kaplan <ekaplan@vertical-wellness.com>
Subject: Board of Supervisor EIR Report Letter

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Goodmorning,

Elyse asked me to send this to you,

Attached is the letter to the Ventura County Board of Supervisors on behalf of Vertical Wellness. Please let us know if you have any questions, comments, concerns.

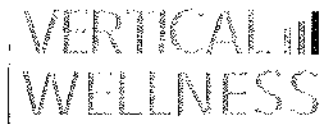
Thank you,
Johnny

--

Johnny Lopez



29800 Agoura Road, Suite 108 | Agoura Hills, CA 91301
Office 888.600.3146



Unleashing Nature's Potential

Friday, February 21, 2020.

RMA Planning Division
800 Victoria Avenue, L #1740
Ventura CA 93009-1740

RE: Flawed General Plan Environmental Impact Report (EIR)

To Whom It May Concern:

Vertical Wellness, a California-based farming operation, would like to formally submit our position that as written, the 2040 General Plan Environmental Impact Report (EIR) was a rushed job that is severely flawed and inadequate, and must be corrected and recirculated to protect a fair and compliant planning process for Ventura County.

There are several issues with the General Plan that Vertical Wellness believes severely and negatively impacts the welfare of local agriculture here in Ventura County, including our own operations.

The California Environmental Quality Control Act (CEQA) requires that all proposed mitigation be technically and economically feasible. **The EIR does not meet this standard.** For example, AG-2 proposes that any project that either directly or indirectly results in the loss of farmland must obtain and place into perpetual agricultural preservation twice the total of the farmland loss. The county has not conducted any sort of feasibility report, which if conducted, would likely show that this standard is unrealistic in terms of economic feasibility for farmers. Furthermore, there are no details on how the county will implement or monitor this program, especially taking into account they are not the local experts in agriculture. You can be certain, however, that if this mitigation measure is put into effect, Vertical Wellness will likely find it economically infeasible to operate in Ventura County.

CEQA also requires that the mitigation not make the impacts worse. **The EIR does not meet this standard.** For example, shortage of farm worker housing was identified as one of the biggest issues facing ag in Ventura County. However, farm operators like Vertical Wellness will have no incentive to build more farm housing and alleviate the shortage if we are forced to purchase considerable additional land for preservation on top of the house building costs. You are essentially punishing responsible operators who are trying in good faith to help mitigate the problem.

CEQA requires that the EIR contain enough detailed information to allow the reader to understand and evaluate the County's impact analysis. **The EIR does not meet this standard.** The EIR and accompanying background report are filled with errors, vague statements, outdated information and conflicting ideas. As written, Vertical Wellness would be utterly lost and confused with how to comply with issues that should be clear to follow like water supply for irrigation.

Most recently, Vertical Wellness has been dealing with the financial loss associated with the new Hemp Ordinance that impedes our ability to grow Hemp this upcoming season. The County's own Right to Farm Ordinance has carried absolutely no weight with the County. Instead, it has been completely dismissed. Thus, the County's assumption in the EIR that the Right to Farm Ordinance would reduce impacts to Ag to "less than significant" and will suddenly prevent the County from creating or expanding more setbacks and operational restrictions on agriculture is completely unsupported. In light of the current actions of the County and the Board of Supervisors to place severe set-backs on hemp cultivation and create economic injury to farmers, for the EIR to assert that the County will utilize the Right to Farm Ordinance to protect agricultural operations from nuisance complaints is misguided and inappropriate, at best. All analysis flowing from the County's erroneous assumption are flawed. The analysis of impacts to Ag from nuisance complaints must be corrected and the EIR recirculated.

The EIR is a flawed document that has failed to achieve its primary purpose. In no way is it a tool of disclosure of all impacts caused by the 2040 General Plan. Vertical Wellness urges the County to take the time to correct and re-circulate the EIR instead of continuing to shortcut the process to the detriment of the community members.

Thank you,

A handwritten signature in black ink, appearing to read "Elyse Kaplan". The signature is fluid and cursive, with a long, sweeping tail that extends to the right.

Elyse Kaplan
Corporate Counsel

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 11:39 AM
To: Simmons, Carrie
Subject: FW: Amendment to Ventura County General Plan Environmental Impact Report
Attachments: 2020_02_26_22_37_09.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
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800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
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From: ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>
Sent: Thursday, February 27, 2020 9:44 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: FW: Amendment to Ventura County General Plan Environmental Impact Report

Received by the Clerk of the Board.

Lori

From: Tina Rasnow [<mailto:tina@rasnowpeak.com>]
Sent: Wednesday, February 26, 2020 10:49 PM
To: ClerkoftheBoard, ClerkoftheBoard <ClerkoftheBoard@ventura.org>; Bennett, Steve <Steve.Bennett@ventura.org>; Parks, Linda <Linda.Parks@ventura.org>; Zaragoza, John <John.Zaragoza@ventura.org>; Long, Kelly <kelly.long@ventura.org>; Supervisor Huber <Supervisor.Huber@ventura.org>
Cc: brian rasnow <brian@rasnowpeak.com>
Subject: Amendment to Ventura County General Plan Environmental Impact Report

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Dear Clerk of the Board and Honorable Members of the Board of Supervisors,

Attached please find the letter from our family regarding the proposed amendment to the Ventura County General Plan and EIR relative thereto. Our family recently completed the donation of almost half of our ranch in the Santa Monica Mountains to the Conejo Open Space Conservation Agency, so we hope that our actions provide credibility to our words. Respectfully,

Tina Rasnow



Tina Rasnow
1000 So. Ventu Park Rd.
Newbury Park, CA 91320
cell: 805-236-0266

tina@rasnowpeak.com
www.rasnowpeak.com



Tina Rasnow (805) 236-0266

February 26, 2020

Ventura County Board of Supervisors
Hall of Administration
800 South Victoria Ave.
Ventura, CA 93009

Re: General Plan Amendment Environmental Impact Report

Dear Honorable Members of the Board of Supervisors:

We are heartened to see more comprehensive environmental protection measures included in the General Plan objectives, as outlined in the Environmental Impact Report, but disappointed that so much focus is still placed on aesthetics as opposed to true health and safety concerns. We also feel that the General Plan Amendment falls short of tackling the full extent of the climate crisis and its likely impact on Ventura County. The new General Plan should provide a blueprint to guide us into the future, but in elevating aesthetics to equal standing with true health and safety issues, it fails as a roadmap to navigate the growing environmental and social challenges of the future.

1. For example, when it comes to telecommunications towers, the emphasis on disguising or hiding them, including protecting the view of the ridgelines, does a great disservice to community health, because cell towers are safest when located away from people. Ridgelines that provide excellent coverage, but are not located near schools, businesses or homes are an ideal location for telecommunications towers, far safer than flagpoles, church steeples, and strip mall facades. This is particularly true as the cell phone carriers migrate to 5G which emits far more EMF and RF than the earlier versions of transmission.

2. While maintaining open space is important, the SOAR initiative allows those with existing homes to veto new development, particularly low income and affordable housing, which is desperately needed to provide shelter for our service worker sector. If lower wage earners cannot afford to live near where they work, the commute required increases congestion and air pollution, deteriorating the quality of life for the whole community.

3. Given that the General Plan is projected to take us to 2040, and the existential threat the climate crisis poses, we think far more needs to be done to cease fossil fuel extraction and transition to 100% renewables in the short term. We need to have a comprehensive public transit system based on renewable energy, methods for harvesting rain water so

less storm water runoff goes to the sea, and planning on what portions of our coast line we may have to abandon to sea level rise.

4. The book, *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*, edited by Paul Hawken (Penguin Books, 2017), compiles the results of research from hundreds of the world's top scientists and climate experts, and identifies specific actions that governments and local communities can take to reverse global warming. Our General Plan should incorporate those drawdown solutions that can be undertaken on a local level, many of which are surprisingly simple. For example, reduced food waste and encouraging people to adopt a more plant-rich diet can have a profound effect on reducing green house gasses. So can good family planning clinics and incentives to reduce procreation rates. A most effective and inexpensive drawdown action would be to implement regenerative agricultural methods here in Ventura County. By transitioning away from chemical fertilizer and pesticide use, no-till land management, and building soil with organic material, including biochar, we can sequester carbon in the soil while building its quality and productivity, eliminating contamination of ground and surface water, and improving air quality.

5. We do not have to invent solutions to address the current and growing environmental and social challenges. Other forward thinking regions are tackling these challenges and can provide us with a template that can be tailored to our own local conditions. For example, on Salt Spring Island in British Columbia, the community is faced with a housing crisis similar to our own in Ventura County. Strict development restrictions and limited residential units have priced housing beyond the reach of many residents. Meror Krayenhoff, a global consultant on rammed earth building methods and featured on *The Nature of Things* with David Suzuki, suggested that a compliance driven, as opposed to vision driven, policy paradigm can result in anarchic, subversive response when the populace thumbs their noses at regulations that don't represent the will and needs of the population. He proposes a number of innovative solutions, including encouraging the use of local, renewable materials in building. Ventura County, with access to rock, sand, straw bales and other renewables, can become a beacon for permitted home building solutions for the rest of California, and the nation. Green projects could get reduced permitting fees and priority in the permit queue, with a single point advisor. For example, composting toilets should not only be permitted, but encouraged, as it is wasteful in the extreme to use precious potable water to flush away human waste.

6. We suggest Ventura County consider concepts implemented elsewhere, such as Seattle granting a 25-30% increase in allowable floor area and increased height limits for Living Building Challenge ("LBC") projects (See <https://living-future.org/lbc/>); or New Zealand's SIREWALL community center project, which made approval contingent upon demonstrating reconciliation with Maoris, training opportunities for youth, a high environmental standard that the community (of all ages) supported, that it would elevate the well-being of the community, and encourage responsible tourism. (See https://www.nzherald.co.nz/northern-advocate/news/article.cfm?c_id=1503450&objectid=12076863)

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9. The General Plan should explicitly reflect the County's Climate Action Plan and its evolution. Achieving net zero CO2 emissions (and sequestration) will require a rapid ending to oil and natural gas extraction (and certainly no expansion, no granting new leases, new pipeline permits, etc. It should encourage green energy generation and storage in both distributed and centralized manners.

10. Wildfires are clearly changing in their severity and nature. The County should lead in research and experimentation with methods of fire protection and damage mitigation, such as (un)controlled small burns, and unconventional methods advocated by <http://californiachaparral.com> – including ember barriers and sprinklers, which are more effective and ecologically sound than enormous denuded hillsides.

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12. As Meror Krayenhoff has stated, “We are in a time when the scale of the emergencies we face need to be addressed with solutions of a corresponding scale. These emergencies also have urgency. . . . [W]ithout governance that can act with pace, boldness, courage and the power to implement, we are wasting our time.” We hope that Ventura County acts with such pace and boldness to adopt a General Plan that guides us in a new direction of carbon drawdown, while promoting innovation in design, building, and conservation for generations to come.

Thank you for your kind consideration.

Sincerely,

Handwritten signatures of Tina Rasnow and Brian Rasnow in cursive script.

Tina Rasnow and Dr. Brian Rasnow on behalf of the
Rasnow Family

Simmons, Carrie

From: Curtis, Susan
Sent: Thursday, February 27, 2020 11:39 AM
To: Simmons, Carrie
Subject: FW: Climate change has environmental impacts!

Follow Up Flag: Follow up
Flag Status: Flagged

Susan Curtis | Manager
General Plan Update Section
susan.curtis@ventura.org

Ventura County Resource Management Agency | Planning Division
P. (805) 654-2497 | F. (805) 654-2509
800 S. Victoria Ave., L #1740 | Ventura, CA 93009-1740
Visit the Planning Division website at vcrma.org/planning
Ventura County General Plan Update. Join the conversation at VC2040.org
For online permits and property information, visit [VC Citizen Access](#)



Pursuant to the California Public Records Act, email messages retained by the County may constitute public records subject to disclosure.

From: Paul Aist <info@email.actionnetwork.org>
Sent: Thursday, February 27, 2020 9:53 AM
To: Curtis, Susan <Susan.Curtis@ventura.org>
Subject: Climate change has environmental impacts!

CAUTION: If this email looks suspicious, DO NOT click. Forward to Spam.Manager@ventura.org

Susan Curtis,

Dear Ventura County Board of Supervisors and Planning Department,

Climate issues are something I feel worried about. Ventura County is warming as fast or faster than any county in the nation. Our ocean is acidifying faster. Drought, fire and floods have hit us worse, and we can expect more extreme weather.

My family and community are counting on you to assure analysis of the full scope of environmental impacts and mitigations in the Draft EIR.

First, it is necessary that all greenhouse gas emissions be counted based on the most current science.

There are many ways to mitigate climate impacts, like a sunset plan for oil and gas production, decarbonization of transportation and buildings, zero waste, incentives for regenerative agriculture and water management, and reducing emissions from tailpipes.

I want an EIR that covers major climate impacts via a systematic plan.

Thank you—

Paul Aist

Ventura

Paul Aist

paulaist@gmail.com

8892 Tacoma Street

Ventura , California 93004

Appendix D

Revised Draft EIR Appendix D
GHG Calculations

The following discussion is a supplement to the Master Response MR-1 to public comments made on the draft EIR.

Discussion of Revisions to the GHG Emission Calculations in the Draft EIR

This appendix has been revised pursuant to comments made on the draft EIR. These comments expressed concern over the methodology used to quantify and forecast stationary source emissions and solid waste emissions, indicating that estimates were not consistent with relative trends in oil production and landfill operations (Comments O6-27, O6-29, O6-30, O20-4, O20-7, O37-16, O37-17). Commenters also expressed a desire to see more explicit explanations of the calculation methodologies (Comments O37-15, O20-4). These comments are summarized in Table 1.

Table 1 Summary of Comments Made Concerning the GHG Emissions Calculations in the Draft EIR

| Comment Number | Comment Summary Warranting Changes to the Draft EIR |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| O6-27 | Noted that oil and gas emissions, associated with the stationary source sector, are inconsistent with California Air Resources Board's Mandatory Reporting Rule reports |
| O6-29 | Noted inconsistent forecasts in solid waste emissions from Simi Valley Landfill and Toland Road Landfill relative to their anticipated landfill closure dates. |
| O6-30, O37-16, O37-17, O20-7 | Expressed concern regarding the methodology used to forecast stationary source emissions. Noted inconsistency of oil and gas forecasts through the draft EIR's use of historical oil production back through 2008 compared with historical oil production back through 1980. Expressed concern over using top-down method to estimate county's share of emissions from state level data. |
| O20-4 | Requested methodology discussion for all sectors |
| O37-15 | Requested clarification of emission inventory and forecast methodology. |

In response to these comments, two major changes were made to the emissions inventory and forecast estimates. Solid waste emissions forecasts were adjusted to account for corrections to scaling factors used for two major landfills. The stationary source emissions inventory and forecast were also revised following concerns over the original methodology used in the draft EIR that was based on a top-down method that scaled state-level emissions to the county level using the county's proportion of oil production in the state. In this final EIR, stationary source emissions have been revised to account for county-specific emissions from the California Air Resources Board (CARB) and oil production data from the California Department of Conservation.

These changes resulted in an overall reduction in emissions estimates compared to the total GHG emissions calculated in the draft EIR and in the emissions gap needed to be closed to meet the county's mass GHG emissions targets. Table 2 summarizes the differences between the draft EIR and final EIR versions of the GHG inventory and forecasts. A more detailed version of Table 2 showing emissions broken down by sector is provided in the modeling data that follows.

Table 2 Comparison of Total Greenhouse Gas Emissions Estimates between the Draft EIR and Final EIR (MT CO₂e).

| | 2015 | 2020 | 2030 | 2040 |
|----------------------------------------------------------|-----------|-----------|-----------|-----------|
| Business As Usual Forecast | | | | |
| Draft EIR | 1,897,112 | 1,902,823 | 1,934,846 | 1,980,736 |
| Final EIR | 1,939,238 | 1,881,423 | 1,857,220 | 1,815,904 |
| Difference from Draft EIR | 42,126 | -21,400 | -77,627 | -164,832 |
| Percent Change from Draft EIR | 2% | -1% | -4% | -8% |
| Legislatively-Adjusted Business As Usual Forecast | | | | |
| Draft EIR | 1,897,112 | 1,793,971 | 1,627,124 | 1,540,630 |
| Final EIR | 1,939,238 | 1,772,537 | 1,549,522 | 1,375,898 |
| Difference from Draft EIR | 42,126 | -21,434 | -77,603 | -164,732 |
| Percent Change from Draft EIR | 2% | -1% | -5% | -11% |

Source: Ascent Environmental 2020

Most of the changes shown in Table 2 were due to changes in the methodology and data used to calculate emissions from the stationary source sector, namely from oil and gas production. Corrections made to the solid waste forecasts accounted for these changes to a lesser extent. Minor corrections were made to the off-road and water and wastewater emissions forecasts to adjust forecasts by the correct scaling factors. In the draft EIR, off-road and water and wastewater emissions were incorrectly calculated to be constant into the future. These factors have been corrected in the final EIR to account for the anticipated growth in the county. The changes made to the off-road and water and wastewater emissions were made following a review of the calculations of the draft EIR and were not related to comments on the draft EIR.

The overall reduction in emissions forecasts, shown in Table 3, decreases the emissions gap needed to close for the county to reach its GHG targets. Table 3 presents the comparison between the gap analyses in the draft EIR and this final EIR.

Table 3 Comparison of GHG Reductions Needed to meet Targets between Draft EIR and Final EIR

| | 2020 | 2030 | 2040 |
|---------------------------------------------------------------------------|-----------|-----------|-----------|
| Target Percent Reduction from 2015 Values ¹ | 2.1% | 41.3% | 60.9% |
| Draft EIR BAU Emissions with Legislative Reductions (MTCO ₂ e) | 1,793,971 | 1,627,124 | 1,540,630 |
| Draft EIR Mass Emission Targets (MTCO ₂ e) | 1,856,620 | 1,113,972 | 742,648 |
| Draft EIR Reductions Needed to Meet Targets (MTCO ₂ e) | -62,649 | 513,153 | 797,982 |
| Final EIR BAU Emissions with Legislative Reductions (MTCO ₂ e) | 1,772,537 | 1,549,522 | 1,375,898 |
| Final EIR Mass Emission Targets (MTCO ₂ e) | 1,897,847 | 1,138,708 | 759,139 |
| Final EIR Reductions Needed to Meet Targets (MTCO ₂ e) | -125,310 | 410,813 | 616,760 |
| Change in Reductions Needed (MTCO ₂ e) | -62,661 | -102,339 | -181,223 |

Note: Negative reductions needed indicate that anticipated. BAU = business-as-usual

¹ Calculated from the statewide reduction targets to achieve 1990 levels by 2020, 40 percent below 1990 levels by 2030, and 60 percent below 1990 levels by 2040 and adjusting these targets relative to 2015 based on the state's emissions in 1990 and 2015.

Although the revised inventory would reduce the amount of emissions needed to meet the County’s GHG targets, which would result in minor modifications to the draft EIR analysis (as provided in Chapter 3, “Revisions to the Draft EIR”). These revisions clarify and support the analysis and conclusions in the draft EIR, they would not result in new or more severe significant impacts. The GHG reduction policies and programs of the 2040 General Plan identified in the draft EIR analysis would not be affected and forecasted GHG emissions would still result in significant and unavoidable impacts.

Summary of Changes Made to the Draft EIR

Table 4 lists the changes made to the Ventura County 2015 GHG Inventory and Forecast that follows. The tab titles are shown at the top of each page starting on Page 15. A detailed explanation of the changes made to the solid waste and stationary source emissions calculations are included after Table 4.

Note that no changes were made to the proposed GHG reduction measure calculations, because those measures did not overlap with the sectors revised in the final EIR.

Table 4 Summary of Changes Made to the Ventura County 2015 GHG Inventory and Forecast in Appendix D of the Draft EIR

| Tab Title | Changes Made to Appendix D of the Draft EIR |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| All Tabs | Made formatting more consistent and easier to read. Added notes describing scaling factors and calculation methods for each of the calculation tabs |
| Summary | No change |
| Targets | This tab was removed because its contents are already included in the gap |
| Forecast-Leg Adjusted | Revised all stationary source emissions, solid waste forecasts, water and wastewater forecasts, off-road forecasts, and emissions totals. |
| Forecast-BAU | Revised all stationary source emissions, solid waste forecasts, water and wastewater forecasts, off-road forecasts, and emissions totals. |
| Demographics | Added 2050 estimates that were not included in this tab in the draft EIR. 2050 estimates are shown in other tabs. Some 2050 calculations are used to interpolate 2040 estimates. |
| Building Energy | Formatted table headers and descriptions to clarify contents |
| Transportation | Formatted table headers and descriptions to clarify contents |
| Off-Road Equipment | Corrected forecast calculations to account for population and employment scaling factors. Previously, calculations were incorrectly scaled, resulting in no change from 2015 emissions. |
| Solid Waste | Added another table set for legislatively adjusted business as usual results Edited headers and descriptions Revised calculation of Waste-in-Place emissions for Toland Road Landfill and Simi Valley Landfill, such that each landfill’s waste-in-place emissions were individually modeled in CARB’s Landfill Emissions Tool and the resulting forecasts were adjusted by the 2015 waste-in-place emissions reported by EPA’s FLIGHT database. Previous estimates for Toland Landfill and Simi Valley Landfill were using incorrect tonnage data and landfill history data. See added footnotes. Removed diversion rate table that was not used for calculation. |
| Imported Water | Corrected calculations to link to the demographics table to scale forecasts by population. Previous calculations were incorrectly linked, resulting in no forecasted growth. |
| Wastewater | Corrected forecast calculations to account for population scaling factors. Previously, calculations were incorrectly scaled. |
| Agriculture | Added scaling factor notes. |
| Stationary Source | Moved forecast table to the top of the sheet to be consistent with the formatting of the other sectors. |

| Tab Title | Changes Made to Appendix D of the Draft EIR |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>Removed irrelevant oil and production numbers from non-Ventura counties.</p> <p>Removed top-down scaled county emissions from statewide oil and gas emissions.</p> <p>Revised 2015 oil and gas emissions to be consistent with Ventura County-specific reports in a 2013 CARB oil and gas industry survey report for 2007 data. 2015 values were scaled from 2007 based on the relative change in oil production in the county.</p> <p>Revised forecasts for oil and gas emissions based on oil production. Based the forecast on historical data from 1980 to 2018. Trends seemed to indicate the declining end of the Hubbert curve, which is used in predicting resource extraction trends. The set of data could be represented by an exponential curve. Added the anticipated production numbers.</p> |
| Assumptions Tab | Removed extraneous rows under GWP that were not being used for calculation. |
| EMFAC | No changes |

GHG Inventory and Forecasting Methodology for Solid Waste and Stationary Source Emissions

Solid Waste

Multiple comments received during the public review of the draft EIR addressed the transparency of the methodology used to quantify emissions from the solid waste sector. Solid waste emissions consist of methane (CH₄) emissions generated by the anaerobic decay of organic material within a landfill. This sector consists of two types of emissions sources: waste generation and waste-in-place. The comments on the solid waste emissions methodology for the GHG inventory and GHG forecast are discussed further below.

Waste generation emissions refer to CH₄ related to the waste disposed in open landfills during the baseline year of emissions inventory. Using Equation SW.4.1 from the ICLEI U.S. Communities Protocol, an emissions factor of 0.041 metric tons of CH₄ per ton is used to quantify emissions from the disposal tonnage rates for each landfill in the county, which were available from CalRecycle. This formula also accounts landfills that have systems to capture fugitive methane emissions in place. Information on which landfills have landfill gas capture systems were available from the Landfill Gas Energy Project Data from U.S. Environmental Protection Agency's (EPA) Landfill Methane Outreach Program (LMOP) database (EPA 2016a). Forecasted waste generation emissions were scaled from 2015 based on the anticipated change in the county's population.

Waste-in-place emissions refer to CH₄ emissions from waste stored in place at a landfill since the landfill first accepted waste, excluding waste deposited in its first year. Emissions generated by a landfill rise over time as more waste is deposited into the landfill. Once that landfill reaches its maximum capacity and closes to additional disposal, the rate of methane emissions from the waste-in-place at landfills reaches its peak then declines over time as the organic material left to decay is exhausted. Emissions from "waste-in-place" can occur from both open and closed landfills, depending on how recently the landfills were closed.

In the draft EIR, the 2015 waste-in-place emissions for two of the largest landfills in Ventura County (Simi Valley Landfill and Toland Road Landfill) were available from the U.S. Environmental Protection Agency's (EPA) Facility Level Information on Greenhouse Gases Tool (FLIGHT) database (EPA 2016b). The 2015 waste-in-place emissions inventory for other smaller landfills and forecasts of all waste-in-place emissions were based on landfill total tonnages and landfill open and past or anticipated closure dates. This information was input into CARB's Landfill Emissions Tool (LET) (November 2011 Version), assuming a constant rate of annual disposal, in order to estimate 2015 and post-2015 emissions. For Simi Valley Landfill and Toland Road Landfill, waste-in-place emission forecasts were scaled from their

FLIGHT 2015 emissions by the relative decay anticipated in CARB’s LET based on the disposal rates and open and closure dates for those landfills. This was done to ensure consistency with landfill-specific emissions calculations from FLIGHT, which accounts for any landfill gas capture systems, and the anticipated decay rates in the LET model.

Comments correctly pointed out inconsistencies for the GHG emission forecasts for Simi Valley Landfill and Toland Road Landfill in the solid waste emission calculations in Appendix D of the draft EIR. This inconsistency was due to the following errors. For Toland Road Landfill, the draft EIR incorrectly forecasted methane emissions by scaling the landfill’s 2015 emissions by waste-in-place emissions for a landfill outside the county. For Simi Valley Landfill, forecasts were based on an annual decay rate of 0.059 percent per year which was incorrectly calculated from the LET. This low decay rate resulted in a much slower decay forecast for Simi Valley Landfill than Toland Road Landfill.

The methodology intended for forecasting waste-in-place emissions in the draft EIR and recalculated in the final EIR is as follows. For Simi Valley Landfill and Toland Road Landfill, waste-in-place emission forecasts were scaled from their FLIGHT 2015 emissions by the relative decay anticipated in CARB’s LET based on the disposal rates and open and closure dates for those landfills. This method was used for consistency with landfill-specific emissions calculations from FLIGHT, which accounts for any landfill gas capture systems, and the anticipated decay rates in the LET model.

Table 5 compares the results for these two landfills between the draft EIR and final EIR. The revised forecast shows much lower emissions, consistent with the anticipated decay in organic waste at each landfill.

Table 5 Draft EIR and Final EIR GHG Emissions Forecasts for Toland Road Landfill and Simi Valley Landfill (Business-as-Usual Scenario) (Metric Tons of Carbon Dioxide Equivalent [MTCO2e])

| | 2020 | 2030 | 2035 | 2040 | 2050 |
|-----------------------------|-------|-------|-------|-------|--------|
| Toland Road Landfill | | | | | |
| Draft EIR | 2,366 | 1,937 | 1,777 | 1,618 | 1,244 |
| Final EIR | 2,794 | 2,842 | 2,572 | 2,327 | 1,905 |
| Difference | 428 | 905 | 795 | 709 | 661 |
| % Difference | 18% | 47% | 45% | 44% | 53% |
| Simi Valley Landfill | | | | | |
| Draft EIR | 6,127 | 6,091 | 6,073 | 6,055 | 6,019 |
| Final EIR | 6,437 | 6,548 | 5,925 | 5,361 | 4,389 |
| Difference | 310 | 457 | -148 | -694 | -1,630 |
| % Difference | 5% | 8% | -2% | -11% | -27% |

Source: Ascent Environmental 2020

Stationary Sources

The stationary sources sector is represented by emissions generated from fixed applications that are not related to electricity generation or consumer natural gas combustion, which are already accounted for in the building energy sector of the inventory. In the county, the major stationary sources are related to oil and gas production and processing. Emissions from oil and gas, accounted for in this inventory, include emissions from on-site combustion (e.g.,

flaring) of oil and associated gas (natural gas produced as a by-product from the processing of oil) as well as fugitive emissions from the processing and extraction of oil and gas. According to CARB, combustion sources are equipment burning fuel for energy, vented emissions are intentional releases of vapors to the atmosphere, and fugitive emissions are unintentional releases of vapors to the atmosphere (CARB 2013). Further description of the types of emissions generated by oil and gas production can be found in CARB's oil and gas survey report, which is cited in CARB's California GHG inventory documentation (CARB 2013).

This inventory does not include emissions related to the combustion of products sold by the oil and gas producers, such as vehicular fuels or other petroleum products, nor does the inventory include supply chain-related emissions, such as the transport of oil via rail or maritime tankers. Emissions from combustion of vehicular fuels and rail and maritime activity are already captured in the transportation and off-road sectors, as they pertain to activity within the jurisdictional boundary of the County. The process of organizing emissions this way is recommended by the ICLEI U.S. Communities Protocol (ICLEI 2013:12). Emissions occurring outside of the county's jurisdictional boundary are subject to inclusion in the emissions inventory of the respective jurisdiction(s).

Previous estimates of GHG emissions from oil and gas production were based on scaling state-level emissions to Ventura County based on the county's respective production of oil and gas. However, commenters have raised concerns about using this method in terms of how the county's emissions could be reflective of statewide emission rates.

Emissions Inventory

The estimates of the County's 2015 GHG emissions from stationary sources included in the draft EIR were based on scaling State-level emissions to the county based on the county's respective production of oil and gas. However, comments on the draft EIR raised concerns about the appropriateness of using this method to estimate GHG emissions associated with oil and gas production in the county. In response to these comments, both the 2015 inventory and forecasted oil and gas emissions have been recalculated in the final EIR to reflect county-specific emissions. The methods used to recalculate GHG emissions from oil and gas production in the GHG inventory and forecast are described below.

In 2013, CARB published a report that measured the GHG emissions from "upstream crude oil and natural gas production, processing, and storage operations" based on survey results that captured 97 percent of the crude oil and natural gas production in the state (CARB 2013). According to this report, in 2007, 276,793 MTCO_{2e} (adjusted for the Intergovernmental Panel on Climate Change's Fifth Assessment Report's global warming potential factors) were emitted within the jurisdiction of the Ventura County Air Pollution Control District (VCAPCD), which has the same geographic boundaries as Ventura County. For the purposes of this calculation the County has assumed that all oil and gas extraction within VCAPCD jurisdiction occurs in the unincorporated county. These emissions resulted from on-site combustion of fuels and fugitive (including vented) emissions generated during crude oil and gas production and processing. These 2007 emissions were scaled to 2015 levels based on the change in oil and gas production in the county between 2007 and 2015 according to the California Department of Conservation (California Department of Conservation 2020). From 2007 to 2015, oil production in the county increased slightly from 7.3 to 8.4 million barrels, a 14.6 percent increase. Based on this change, the emissions were estimated to increase from 276,793 MTCO_{2e} in 2007 to 317,222 MTCO_{2e} in 2015. This scaling method is supported by CARB's documentation of California's GHG Inventory, where the emission factors for the oil and gas sector remained constant between 2007 and 2015, suggesting that emissions would change in

proportion to oil production. See the Revised Appendix D, Attachment to the final EIR for additional calculation details.

Note that gas production is excluded from scaling of emissions because there is no reported natural gas production in the county. Additionally, associated gas production is gas produced as a byproduct of oil production.

Forecasts

Commenters also raised concerns that the historical oil and gas production data in the county used in the draft EIR to forecast GHG emissions did not reflect the overall trends in production in the county and cited the county’s historical production data dating back to 1980. In the draft EIR, the county’s historical production data starting from 2008 were originally intended to determine production trends for GHG forecasting. However, the formulas in the calculation spreadsheet were not tied to the calculated average annual growth rate from 2008 and, instead, forecasts for years after 2020 were incorrectly linked to other growth rates.

Notwithstanding the errors associated with the incorrectly linked growth rates, the County has reviewed the county’s historical oil and gas production data from the California Department of Conservation starting from 1980, and noted an anomalous spike in oil and gas production occurred between 2008 and 2018, likely due to the effects of the global recession at the start of that period. This spike occurred in contrast to the overall decline in oil and gas production in the county. Since 1980, oil and gas production in the county has decreased by approximately 60 percent, following an inverted growth curve pattern characteristic of oil production decline similar to that of the Hubbert Curve. The Hubbert Curve, which is similar to a bell curve, approximates the rate of production over time of finite resources, like fossil fuels. To forecast how this trend in production would continue through 2050, these historical production values were plotted and fitted based on an exponential function for the period between 1980 and 2018. The “Oil Production in Ventura County (1980-2050)” graph in the attached shows this trend through 2018 and the anticipated production through 2050, based an exponential regression calculator (CASIO Computer 2020). The forecasted oil production values were then used as scaling factors to scale the county’s 2007 oil and gas emission from CARB’s 2013 oil and gas survey report to future years.

Table 6 shows the difference in the 2015 inventory and forecasts for emissions from stationary sources between the draft EIR and final EIR. The revised emissions show higher estimates for 2015, but substantially lower forecasts through 2050 compared to the draft EIR estimates.

Table 6 Draft EIR and Final EIR GHG Emissions Inventory and Forecast for Stationary Source Emissions (Business-as-Usual Scenario) (MTCO_{2e})

| | 2015 | 2020 | 2030 | 2040 | 2050 |
|-------------|---------|---------|----------|----------|----------|
| Draft EIR | 275,096 | 287,845 | 314,526 | 343,679 | 375,535 |
| Final EIR | 317,222 | 245,340 | 198,432 | 160,660 | 130,212 |
| Difference | 42,126 | -42,505 | -116,094 | -183,019 | -245,323 |
| %Difference | 15% | -15% | -37% | -53% | -65% |

References

California Air Resources Board. 2013 (October). *2007 Oil and Gas Industry Survey Results*. Final Report (Revised). Available: https://ww2.arb.ca.gov/sites/default/files/2020-04/FinalReportRevised_4.pdf. Accessed June 15, 2020.

CARB. See California Air Resources Board.

EPA. See U.S. Environmental Protection Agency.

ICLEI. See ICLEI – Local Governments for Sustainability USA.

ICLEI – Local Governments for Sustainability USA. 2013 (July). *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions*. Version 1.1.

U.S. Environmental Protection Agency. 2016a. Landfill Gas Energy Project Data. Available: <https://www.epa.gov/lmop/landfill-gas-energy-project-data>. Accessed December 13, 2016.

-----, 2016b. Facility Level Information on GreenHouse gases Tool (FLIGHT). Available: https://ghgdata.epa.gov/ghgp/main.do?site_preference=normal. Accessed December 2016.

The following summarizes the changes made to the GHG forecasts and calculations shown in Appendix D. Additions and changes to the draft EIR version of Appendix D are shown in green font (or yellow font where the background is green).

| GHG Gap Analysis (MT CO₂e / YEAR) | | |
|---------------------------------------------------------|------------------|------------------|
| SECTOR | 2030 | 2040 |
| Building Energy Total | 285,079 | 225,567 |
| Transportation Total | 487,058 | 446,355 |
| Solid Waste Total | 316,441 | 288,020 |
| Water and Wastewater Total | 13,576 | 13,699 |
| Off Road Equipment Total | 54 | 56 |
| Agriculture Total | 248,882 | 241,541 |
| Stationary Source Total | 198,432 | 160,660 |
| Legislatively Adjusted GHG Emissions Total | 1,549,522 | 1,375,898 |
| Target for Consistency with State Climate Policies | 1,138,708 | 759,139 |
| | | |
| Reductions Needed to meet GPU Targets | 410,813 | 616,760 |
| CTM-B | -3,454 | -5,111 |
| CTM-C | -47,231 | -78,405 |
| COS-S | -2,019 | -3,367 |
| COS-8.4 | -59,972 | -20,445 |
| COS-W | -5,042 | -6,677 |
| COS-H | -354 | -708 |
| AG-H | -33,830 | -39,236 |
| Quantified Reductions | -151,903 | -153,950 |
| Gap Remaining | 258,911 | 462,810 |

CTM-B

| | 2030 | 2040 |
|-------------------------------------------------------------------------------------------------|---------------|---------------|
| New VMT from 2015 baseline | 90,240,682 | 150,401,136 |
| Light Duty | 84,189,124 | 140,315,481 |
| Heavy Duty | 6,045,830 | 10,076,404 |
| Buses | 5,727 | 9,252 |
| Percent reduction target for VMT in new growth (relative to business as usual in 2030 and 2040) | 15% | 15% |
| Post program VMT | 76,704,579 | 127,840,966 |
| Light Duty | 71,560,756 | 119,268,158 |
| Heavy Duty | 5,138,956 | 8,564,943 |
| Buses | 4,868 | 7,864 |
| Pre-Program GHG Emissions (CO2e) | 23,029.31 | 34,072.49 |
| Post-Program GHG Emissions (CO2e) | 19,574.92 | 28,961.61 |
| GHG Savings | -3,454 | -5,111 |

| gCO2e/mi | 2030 | 2040 |
|------------|-------------|-------------|
| Light Duty | 235.9523762 | 209.2510967 |
| Heavy Duty | 522.1202114 | 466.3473808 |
| Buses | 1403.489593 | 1320.060821 |

| CTM-C | | |
|--------------------------------------------------------|---------------|---------------|
| | 2030 | 2040 |
| Forecast VMT from heavy duty vehicles | 1,770,625,968 | 1,826,755,613 |
| Forecast VMT from light duty vehicles | 127,153,053 | 131,183,863 |
| % attributed to new growth | 4.8% | 7.7% |
| Percent VMT Reduction Goal from program implementation | 5% | 10% |
| Adjusted VMT light duty | 1,597,900,202 | 1,503,755,939 |
| Adjusted VMT heavy duty | 114,749,187 | 107,988,453 |
| Pre Program GHG Emissions | 484,173 | 443,428 |
| Post Program GHG Emissions | 436,941 | 365,023 |
| GHG reductions from Countywide VMT Reduction Program | -47,231 | -78,405 |

| gCO2e/mi | 2030 | 2040 |
|---------------------------------------------------------------------------------|-------------|-------------|
| Light Duty | 235.9523762 | 209.2510967 |
| Heavy Duty | 522.1202114 | 466.3473808 |
| Source: Ascent Environmental GHG Forecasting using 2017 EMFAC emissions factors | | |

COS-S

Residential Green Building Ordinance

| | | |
|-----------------------------------------------|----------|----------|
| Mixed-Fuel, Code Compliant Single Family Home | 2030 | 2040 |
| Annual kWh consumption DU - 2019 Title 24 | 5,007 | 5,007 |
| Annual therms demand/DU - 2019 Title 24 | 381.7 | 381.7 |
| Annual PV/storage kWh/DU - 2019 Title 24 | 5,007 | 5,007 |
| Net kWh demand/DU - 2019 Title 24 | 0 | 0 |
| All-Electric Residential | | |
| Annual kWh demand/DU | 7,745 | 7,745 |
| Annual therms demand/DU | 0 | 0 |
| Annual PV/storage kWh/DU | 7,745 | 7,745 |
| Net kWh demand/DU | 0 | 0 |
| Difference in kWh demand/DU | 0 | 0 |
| Difference in therms demand/DU | -381.7 | -381.7 |
| Forecasted Housing Units in Ventura County | 32,959 | 33,472 |
| New Dwelling Units in Ventura County | 768 | 1281 |
| Total kWh reduction | 0 | 0 |
| Total therms reduced | -293,146 | -488,958 |
| MT CO2e Reduced | -2,019 | -3,367 |

COS-8.4

CCA Enrollment

Clean Power Alliance City or County **Default Tier**
Ventura County **100% Green Power**

| | Residential | | Non-Residential | |
|--------------------------------------------|-------------|--------|-----------------|--------|
| Total Eligible Accounts | 100% | 31,214 | 100% | 7,110 |
| | % | Number | % | Number |
| Opt Up (Ineligible due to default tier) | 0.00% | 0 | 0.00% | 0 |
| Opt Mid (Green --> Clean) | 0.84% | 262 | 1.34% | 95 |
| Opt Down (Green --> Lean) | 4.31% | 1,345 | 3.05% | 217 |
| Opt Out (CPA --> SCE) | 10.73% | 3,349 | 17.05% | 1,212 |
| | | | | |
| Enrollments | Residential | | Non-Residential | |
| Total Remaining Enrollments | 100.00% | 27,865 | 100.00% | 5,898 |
| 100% Green Power | 94.23% | 26,257 | 94.71% | 5,586 |
| Clean Power | 0.94% | 262 | 1.62% | 95 |
| Lean Power | 4.83% | 1,345 | 3.68% | 217 |

| | 2015 | 2020 | 2030 | 2040 |
|-------------------------------------------|-------------|-------------|-------------|-------------|
| Residential electricity consumption (kWh) | 262,750,031 | 264,831,397 | 269,018,616 | 273,205,835 |
| Commercial electricity consumption (kWh) | 118,867,785 | 119,225,592 | 124,892,675 | 129,659,819 |
| Number of DU | 32,191 | 32,446 | 32,959 | 33,472 |
| kWh/DU | 8,162.22 | 8,162.22 | 8,162.22 | 8,162.22 |

| | | | |
|----------------------------------------------------|-------------|-------------|-------------|
| Business Accounts | 7,110 | 7,466 | 7,839 |
| Residential Units on CPA | 28,965 | 29,422 | 29,880 |
| Res 100 % Green Power (Current) | 27,293 | 27,725 | 28,156 |
| Res 100 % Green Power (97 percent target) | 32,446 | 31,311 | 31,798 |
| *Target Rate for 100% Green enrollment 95% by 2030 | | | |
| Commercial on CPA | 5,898 | 6,193 | 6,502 |
| Com 100 % Green Power (Target) | 5,586 | 5,865 | 6,158 |
| Com 100 % Green Power (Current) | | 7,092 | 7,447 |
| kWh from CPA 100% Green Power (Residential) | 222,773,843 | 255,567,685 | 259,545,543 |
| kWh from CPA 100% Green Power (Commercial) | 93,665,944 | 118,648,041 | 123,176,828 |
| Total kWh switched | 316,439,787 | 374,215,726 | 382,722,371 |
| CO2e Reduced under BAU Target | -67,955 | -59,972 | -20,445 |

COS-W

| | 2030 | 2040 |
|----------------------------------------------------------------|-------------|-------------|
| Residential electricity consumption (kWh) - existing buildings | 269,018,616 | 273,205,835 |
| Residential natural gas consumption (therms) | 14,392,361 | 14,616,375 |
| Commercial electricity consumption (kWh) - existing buildings | 124,892,675 | 129,659,819 |
| Commercial natural gas consumption | 10,452,853 | 10,851,838 |
| | | |
| Number of Res DU | 32,959 | 33,472 |
| kWh/DU | 8,162.22 | 8,162.22 |
| therms/DU | 436.67 | 436.67 |
| | | |
| Commercial Accounts | 7,466 | 7,839 |
| | | |
| Target DU participation in outreach program | 20% | 25% |
| Target DU participation in monitoring program | 20% | 25% |
| | | |
| Percent savings per DU from aggressive outreach | 1% | 1% |
| Percent savings per DU from in-home monitoring | 4% | 4% |
| | | |
| Energy Savings | | |
| Outreach - Electricity (kWh) | 81.62 | 81.62 |
| Outreach - Natural Gas (therms) | 4.37 | 4.37 |
| Monitoring - Electricity (kWh) | 326.49 | 326.49 |
| Monitoring - Natural Gas (therms) | 17.47 | 17.47 |
| | | |
| Outreach - Total electricity savings (kWh) | 538,037 | 683,015 |
| Outreach - Total natural gas savings (therms) | 28,785 | 36,541 |
| Monitoring - Total electricity savings (kWh) | 107,607 | 109,282 |
| Monitoring - Total natural gas savings (therms) | 23,028 | 23,028 |
| | | |
| Total electricity savings (kWh) | 645,645 | 792,297 |
| Total natural gas savings (therms) | 51,813 | 59,569 |

| | | |
|--------------------------------------------------|------|------|
| GHG Reductions from electricity savings (MTCO2e) | -103 | -85 |
| GHG Reductions from natural gas savings (MTCO2e) | -357 | -410 |

| | | |
|--------------------------------------------------|-------------|-------------|
| Total Residential GHG Reductions (MTCO2e) | -460 | -495 |
|--------------------------------------------------|-------------|-------------|

| | 2030 | 2040 |
|---------------------------------------------|-------------|-------------|
| Commercial electricity consumption (kWh) | 124,892,675 | 129,659,819 |
| Commercial natural gas consumption (therms) | 10,452,853 | 10,851,838 |

| | | |
|------------------------------------------------------------|------------|------------|
| Target Reductions | 5% | 7% |
| Reduction in energy consumption from behavior mod programs | | |
| | kWh | |
| | -6,244,634 | -9,076,187 |
| | Therms | |
| | -522,643 | -759,629 |

| | | |
|-------------------------------------------------|---------------|---------------|
| Total Commercial GHG Reductions (MTCO2e) | -4,582 | -6,182 |
|-------------------------------------------------|---------------|---------------|

| COS-H | | |
|------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
| Urban Forest | | |
| | 2030 | 2040 |
| Total trees planted | 10000 | 20000 |
| Default Annual CO2 accumulation per tree for Miscellaneous Trees (MT CO2e/tree/year) (From Appendix A of CalEEMod v2016.3.1) | 0.0354 | -0.0354 |
| GHG Reduction from Measure (MTCO2e/year) | -354 | -708 |

AG-H**Reduced Inorganic Nitrogen Fertilizer**

| | 2015 | 2030 | 2040 |
|-----------------------------------------------------------------------------------------------|---------|----------------|----------------|
| Existing N2O Emissions from Nitrogen Fertilizer Use (MTCO2e) | 146,983 | 144,068 | 142,124 |
| Tons Applied | 43,631 | 42,766 | 42,189 |
| Percent substitution w/organic fertilizer from locally sourced organic waste from 2015 levels | | 25% | 30% |
| Forecasted N2O tons of inorganic nitrogen fertilizer applied after reduction (MTCO2e) | | 32,723 | 30,542 |
| N2O Emissions from Inorganic Nitrogen Fertilizer Use (MTCO2e) | | 110,237 | 102,888 |
| Net GHG Reduction from AG-4 (MTCO2e) | | -33,830 | -39,236 |



Ventura County 2015 GHG Inventory Update and 2040 Forecast



Updated 6/11/2020

Workbook Description

This workbook contains the calculations for Ventura County's 2015 Greenhouse Gas (GHG) inventory and forecast through 2040.

Tab Descriptions and Update Instructions

| Tab Name | Description | Category |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Inventory and Forecast | This tab consolidates and summarizes the results from all emissions sectors for the business-as-usual (BAU) and Adjusted BAU (ABAU), or legislative adjusted, scenarios. Charts and inventory summaries are located further down on the sheet. This tab also calculates emissions forecasts for some sources (e.g., septic systems). | Summary |
| Demographics | This tab houses the population, housing, and employment data and forecasts from 2015 through 2040. This tab also calculates the unincorporated County's portion of this data by subtracting out Vandenberg Air Force Base and UC Ventura values. | Demographics |
| Transportation | This tab calculates on-road transportation based on Vehicle Travelled. | Calculations |
| Building Energy | This tab calculates the emissions from residential, commercial, industrial, and agricultural energy use. | Calculations |
| Offroad | This tab calculates the emissions from off-road equipment. | Calculations |
| Solid Waste | This tab calculates the emissions from waste generation and waste-in-place. | Calculations |
| Imported Water | This tab calculates emissions from water imported to the unincorporated County. | Calculations |
| Wastewater | This tab calculates the emissions from wastewater treatment processes from centralized wastewater treatment facilities and septic systems. | Calculations |
| Agriculture | This tab summarizes the emissions from agricultural sources. | Calculations |
| Stationary Source | This tab calculates provides the data for major stationary sources in the County. | Calculations |
| Assumptions | Includes reference material necessary for GHG calculations, including: Conversion factors, mode split, global warming potential (GWP) factors, electricity emission factors (provided by EPA eGRID), electricity emission factors as-calculated for each utility, natural gas emission factors, and more. | Background Data and Calculations |
| EMFAC | Includes emission factor outputs and calculations for on-road vehicles from CARB's Emissions FACTors model. | Background Data and Calculations |

Targets

| GHG Reduction Targets | | | |
|-----------------------|---------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------|
| Milestone Year | Statewide Existing and Target Emissions (MMTCO2e) | Statewide Target Percent Reduction below 1990 levels by Target Years | Adjusted Target Percent Reduction below 2015 levels by Target Years |
| 1990 (Historical) | 431 | NA | NA |
| 2015 (Historical) | 440 | NA | NA |
| 2020 (Target) | 431 | 0% | 2.1% |
| 2030 (Target)* | 258.60 | 40.0% | 41.3% |
| 2040 (Target) | 172.40 | 60.0% | 60.9% |

Source: https://www.arb.ca.gov/cc/inventory/pubs/reports/appendix_a1_inventory_ipcc_sum_1990.pdf

Source: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

AB 32

SB 32

* State emissions calculated from ARB's scoping plan
Source: California GHG Inventory. ARB 2014 and 2016

Ventura County

| Community Inventory | 2015 | 2020 | 2030 | 2040 | 2050 |
|------------------------------------------|-----------|-----------|-----------|-----------|-----------|
| Population | 97,733 | 99,755 | 100,918 | 101,832 | 102,490 |
| BAU Emissions (MTCO2e) | 1,939,238 | 1,881,423 | 1,857,220 | 1,815,904 | 1,787,089 |
| BAU with Legislative Reductions (MTCO2e) | 1,939,238 | 1,772,537 | 1,549,522 | 1,375,898 | 1,288,892 |

Community Targets

| | 2020 | 2030 | 2040 | 2050 |
|-------------------|-----------|-----------|-----------|-----------|
| Mass Emissions | 1,897,847 | 1,138,708 | 759,139 | 379,569 |
| Needed Reductions | 125,310 | (410,813) | (616,760) | (909,323) |

Forecast- Leg Adjusted

FEIR

| DETAIL (MT CO2e / YEAR) | Inventory | Legislative Adjustment Scenario | | | | |
|----------------------------|------------------|---------------------------------|------------------|------------------|------------------|------|
| | | 2015 | 2020 | 2030 | 2040 | 2050 |
| SECTOR | | | | | | |
| Building Energy | 322,048 | 308,629 | 285,079 | 225,567 | 197,996 | |
| Transportation | 692,753 | 625,263 | 487,058 | 446,355 | 450,232 | |
| Solid Waste | 333,167 | 323,611 | 316,441 | 288,020 | 262,405 | |
| Water and Wastewater | 13,148 | 13,420 | 13,576 | 13,699 | 13,788 | |
| Off Road Equipment | 52 | 52 | 54 | 56 | 59 | |
| Agriculture | 260,849 | 256,223 | 248,882 | 241,541 | 234,200 | |
| Stationary Source | 317,222 | 245,340 | 198,432 | 160,660 | 130,212 | |
| TOTAL | 1,939,238 | 1,772,537 | 1,549,522 | 1,375,898 | 1,288,892 | |

DEIR

| TOTAL UNINCORPORATED EMISSIONS | Inventory | Legislative Adjustment Scenario | | | | |
|--------------------------------|------------------|---------------------------------|------------------|------------------|------------------|------|
| | | 2015 | 2020 | 2030 | 2040 | 2050 |
| SECTOR | | | | | | |
| Building Energy | 322,048 | 308,629 | 285,079 | 225,567 | 197,996 | |
| Transportation | 692,753 | 625,263 | 487,058 | 446,355 | 450,232 | |
| Solid Waste | 333,167 | 302,811 | 278,381 | 270,289 | 262,560 | |
| Water and Wastewater | 13,148 | 13,148 | 13,148 | 13,148 | 13,148 | |
| Off Road Equipment | 52 | 52 | 52 | 52 | 52 | |
| Agriculture | 260,849 | 256,223 | 248,882 | 241,541 | 234,200 | |
| Stationary Source | 275,096 | 287,845 | 314,526 | 343,679 | 375,535 | |
| TOTAL | 1,897,112 | 1,793,971 | 1,627,124 | 1,540,630 | 1,533,723 | |

Difference

| TOTAL UNINCORPORATED EMISSIONS | Inventory | Legislative Adjustment Scenario | | | |
|--------------------------------|---------------|---------------------------------|----------------|-----------------|-----------------|
| SECTOR | 2015 | 2020 | 2030 | 2040 | 2050 |
| Building Energy | 0 | 0 | 0 | 0 | 0 |
| Transportation | 0 | 0 | 0 | 0 | 0 |
| Solid Waste | 0 | 20,800 | 38,060 | 17,731 | -155 |
| Water and Wastewater | 0 | 272 | 428 | 551 | 640 |
| Off Road Equipment | 0 | 0 | 3 | 5 | 8 |
| Agriculture | 0 | 0 | 0 | 0 | 0 |
| Stationary Source | 42,126 | -42,505 | -116,094 | -183,019 | -245,323 |
| TOTAL | 42,126 | -21,434 | -77,603 | -164,732 | -244,831 |

| | | | | | |
|------------------------------|----|-----|-----|------|------|
| Percent Difference from DEIR | 2% | -1% | -5% | -11% | -16% |
|------------------------------|----|-----|-----|------|------|

FEIR

| DETAIL (MT CO ₂ e / YEAR) | Inventory | Business As Usual Scenario | | | |
|-----------------------------------------|-----------|----------------------------|------------------|------------------|------------------|
| | | 2015 | 2020 | 2030 | 2040 |
| SECTOR | | | | | |
| Building Energy | | 322,048 | 323,803 | 334,079 | 343,129 |
| Transportation | | 692,753 | 704,364 | 727,433 | 750,452 |
| Solid Waste | | 333,167 | 338,221 | 334,763 | 306,366 |
| Water and Wastewater | | 13,148 | 13,420 | 13,576 | 13,699 |
| Off Road Equipment | | 52 | 52 | 54 | 56 |
| Agriculture | | 260,849 | 256,223 | 248,882 | 241,541 |
| Stationary Source | | 317,222 | 245,340 | 198,432 | 160,660 |
| TOTAL | | 1,939,238 | 1,881,423 | 1,857,220 | 1,815,904 |

DEIR

| TOTAL UNINCORPORATED EMISSIONS DETAIL | Inventory | Business As Usual Scenario | | | |
|------------------------------------------|-----------|----------------------------|------------------|------------------|------------------|
| | | 2015 | 2020 | 2030 | 2040 |
| SECTOR | | | | | |
| Building Energy | | 322,048 | 323,803 | 334,079 | 343,129 |
| Transportation | | 692,753 | 704,364 | 727,433 | 750,452 |
| Solid Waste | | 333,167 | 317,388 | 296,727 | 288,735 |
| Water and Wastewater | | 13,148 | 13,148 | 13,148 | 13,148 |
| Off Road Equipment | | 52 | 52 | 52 | 52 |
| Agriculture | | 260,849 | 256,223 | 248,882 | 241,541 |
| Stationary Source | | 275,096 | 287,845 | 314,526 | 343,679 |
| TOTAL | | 1,897,112 | 1,902,823 | 1,934,846 | 1,980,736 |

Difference

| TOTAL UNINCORPORATED EMISSIONS | Inventory | Business As Usual Scenario | | | |
|--------------------------------|---------------|----------------------------|----------------|-----------------|-----------------|
| SECTOR | 2015 | 2020 | 2030 | 2040 | 2050 |
| Building Energy | 0 | 0 | 0 | 0 | 0 |
| Transportation | 0 | 0 | 0 | 0 | 0 |
| Solid Waste | 0 | 20,833 | 38,036 | 17,631 | -308 |
| Water and Wastewater | 0 | 272 | 428 | 551 | 640 |
| Off Road Equipment | 0 | 0 | 3 | 5 | 8 |
| Agriculture | 0 | 0 | 0 | 0 | 0 |
| Stationary Source | 42,126 | -42,505 | -116,094 | -183,019 | -245,323 |
| TOTAL | 42,126 | -21,400 | -77,627 | -164,832 | -244,983 |

| | | | | | |
|------------------------------|----|-----|-----|-----|------|
| Percent Difference from DEIR | 2% | -1% | -4% | -8% | -12% |
|------------------------------|----|-----|-----|-----|------|

Demographics

Demographics

Ventura County Greenhouse Gas Emissions Inventory - Unincorporated County Population, Employment, Housing Forecast

| | Inventory | Forecast | | | | | Sources: |
|-------------------------|-----------|----------|---------|---------|---------|---------|-------------------------------------------------------|
| | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | |
| Population | | | | | | | |
| County | 850,491 | 894,000 | 928,339 | 946,000 | 961,867 | 994,133 | Inventory: Department of Finance |
| Incorporated | 752,758 | 794,245 | 827,421 | 844,496 | 860,035 | 891,643 | Forecast: See Growth Forecast Spreadsheet |
| Population | 97,733 | 99,755 | 100,918 | 101,504 | 101,832 | 102,490 | |
| Percent Unincorporated | 0 | 0 | 0 | 0 | 0 | 0 | |
| Employment | | | | | | | |
| County | 319,588 | 371,841 | 394,040 | 406,068 | 416,239 | 436,580 | Inventory: Ventura County Background Report (p. 2-37) |
| Incorporated | 286,699 | 338,853 | 359,484 | 371,226 | 380,364 | 398,639 | Forecast: See Growth Forecast Spreadsheet |
| Persons employed | 32,889 | 32,988 | 34,556 | 34,842 | 35,875 | 37,941 | |
| Percent Unincorporated | 0 | 0 | 0 | 0 | 0 | 0 | |
| Housing Units | | | | | | | |
| County | 273,286 | 283,000 | 300,250 | 311,000 | 317,500 | 330,500 | Inventory: Ventura County Background Report (p. 2-37) |
| Incorporated | 241,095 | 250,554 | 267,291 | 277,655 | 284,028 | 296,776 | Forecast: See Growth Forecast Spreadsheet |
| Housing Units | 32,191 | 32,446 | 32,959 | 33,345 | 33,472 | 33,725 | |
| Percent Unincorporated | 11.78% | 11.47% | 10.98% | 10.72% | 10.54% | 10.20% | |

Building Energy

Ventura County Greenhouse Gas Emissions Inventory and Forecast - 2015 - 2050

Emissions Summary (MTCO2e)

| Legislatively Adjusted | | | | | | | Scaling Factor |
|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------------------------------------------|
| | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | |
| Residential | 159,973 | 154,449 | 142,233 | 129,360 | 115,258 | 101,422 | Annual Energy Usage and Legislatively-Adjusted Emission Factors |
| Commercial | 97,091 | 94,326 | 92,004 | 86,039 | 81,663 | 79,041 | Annual Energy Usage and Legislatively-Adjusted Emission Factors |
| Industrial | 15,198 | 15,244 | 15,969 | 16,101 | 16,578 | 17,533 | Annual Energy Usage and Legislatively-Adjusted Emission Factors |
| Agricultural | 49,786 | 44,610 | 34,873 | 23,441 | 12,068 | - | Annual Energy Usage and Legislatively-Adjusted Emission Factors |
| Total | 322,048 | 308,629 | 285,079 | 254,940 | 225,567 | 197,996 | |

| BAU | | | | | | | Scaling Factor |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------------------------|
| | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | |
| Residential | 159,973 | 161,240 | 163,789 | 165,708 | 166,339 | 167,594 | Annual Energy Usage and 2015 Emission Factors |
| Commercial | 97,091 | 97,383 | 102,012 | 102,856 | 105,905 | 112,004 | Annual Energy Usage and 2015 Emission Factors |
| Industrial | 15,198 | 15,244 | 15,969 | 16,101 | 16,578 | 17,533 | Annual Energy Usage and 2015 Emission Factors |
| Agricultural | 49,786 | 49,936 | 52,310 | 52,743 | 54,306 | 57,434 | Annual Energy Usage and 2015 Emission Factors |
| Total | 322,048 | 323,803 | 334,079 | 337,407 | 343,129 | 354,565 | |

Building Energy Emissions in 2015

| Energy Type (and Utility) | Energy Unit | Emission Factor per Energy Unit | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 |
|----------------------------------------------|-------------|---------------------------------|---------------|---------------|---------------|---------------|--------------|-------------|
| | | | MT CO2e | MT CO2e | MT CO2e | MT CO2e | MT CO2e | MT CO2e |
| Electricity - SCE | kWh | MT CO2e/MWh | 0.240 | 0.215 | 0.160 | 0.107 | 0.053 | 0.000 |
| Natural Gas - So Cal Gas | Therm | MT CO2e/Therm | 0.006887 | 0.006887 | 0.006887 | 0.006887 | 0.006887 | 0.006887 |
| County Average Electricity EF (g/kWh) | | | 240.39 | 214.75 | 160.26 | 106.84 | 53.42 | 0.00 |

| Annual Energy Usage | | | | | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | Scaling Factor |
|--------------------------|---------------|-------------|----------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------|
| Sector | Customer Type | Energy Type | Utility/Source | Energy Unit | Annual Usage | Annual Usage | Annual Usage | Annual Usage | Annual Usage | Annual Usage | |
| Residential Energy | Residential | Electricity | SCE | kWh | 262,750,031 | 264,831,397 | 269,018,616 | 272,169,233 | 273,205,835 | 275,266,796 | Housing Units |
| Commercial Energy | Commercial | Electricity | SCE | kWh | 118,867,785 | 119,225,592 | 124,892,675 | 125,926,339 | 129,659,819 | 137,126,779 | Employment |
| Industrial Energy* | Industrial | Electricity | SCE | kWh | - | - | - | - | - | - | None |
| Agricultural Energy | Agricultural | Electricity | SCE | kWh | 207,106,250 | 207,729,666 | 217,603,563 | 219,404,541 | 225,909,475 | 238,919,342 | Employment |
| Residential Energy | Residential | Natural Gas | SoCal Gas | Therms | 14,056,995 | 14,168,347 | 14,392,361 | 14,560,918 | 14,616,375 | 14,726,636 | Housing Units |
| Commercial Energy | Commercial | Natural Gas | SoCal Gas | Therms | 9,948,602 | 9,978,549 | 10,452,853 | 10,539,365 | 10,851,838 | 11,476,783 | Employment |
| Industrial Energy | Industrial | Natural Gas | SoCal Gas | Therms | 2,206,808 | 2,213,451 | 2,318,661 | 2,337,852 | 2,407,165 | 2,545,790 | None |
| Total Electricity | | | | kWh | 588,724,066 | 591,786,655 | 611,514,854 | 617,500,114 | 628,775,129 | 651,312,916 | |
| Total Natural Gas | | | | Therms | 26,212,405 | 26,360,346 | 27,163,876 | 27,438,135 | 27,875,378 | 28,749,209 | |

| Annual Emissions | | | | | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | Scaling Factor |
|------------------------------------|---------------|-------------|----------------|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Sector | Customer Type | Energy Type | Utility/Source | Scenario | MT CO2e | MT CO2e | MT CO2e | MT CO2e | MT CO2e | MT CO2e | |
| Residential Energy | Residential | Electricity | SCE | Legislative Adjusted | 63,162 | 56,872 | 43,113 | 29,078 | 14,595 | - | Housing Units |
| Commercial Energy | Commercial | Electricity | SCE | Legislative Adjusted | 28,575 | 25,603 | 20,015 | 13,454 | 6,926 | - | Employment |
| Industrial Energy* | Industrial | Electricity | SCE | Legislative Adjusted | - | - | - | - | - | - | None |
| Agricultural Energy | Agricultural | Electricity | SCE | Legislative Adjusted | 49,786 | 44,610 | 34,873 | 23,441 | 12,068 | - | Employment |
| Residential Energy | Residential | Natural Gas | SoCal Gas | Legislative Adjusted/BAU | 96,811 | 97,577 | 99,120 | 100,281 | 100,663 | 101,422 | Housing Units |
| Commercial Energy | Commercial | Natural Gas | SoCal Gas | Legislative Adjusted/BAU | 68,516 | 68,722 | 71,989 | 72,585 | 74,737 | 79,041 | Employment |
| Industrial Energy | Industrial | Natural Gas | SoCal Gas | Legislative Adjusted/BAU | 15,198 | 15,244 | 15,969 | 16,101 | 16,578 | 17,533 | None |
| Total Electricity Emissions | | | | | 141,523 | 127,085 | 98,001 | 65,974 | 33,589 | 0 | |
| Total Natural Gas Emissions | | | | | 180,525 | 181,544 | 187,078 | 188,966 | 191,978 | 197,996 | |
| TOTAL | | | | | 322,048 | 308,629 | 285,079 | 254,940 | 225,567 | 197,996 | |

Building Energy

| Annual Emissions | | | | | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | |
|------------------------------------|---------------|-------------|----------------|----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Sector | Customer Type | Energy Type | Utility/Source | Scenario | MT CO2e | MT CO2e | MT CO2e | MT CO2e | MT CO2e | MT CO2e | Scaling Factor |
| Residential Energy | Residential | Electricity | SCE | BAU | 63,162 | 63,663 | 64,669 | 65,427 | 65,676 | 66,171 | Housing Units |
| Commercial Energy | Commercial | Electricity | SCE | BAU | 28,575 | 28,661 | 30,023 | 30,271 | 31,169 | 32,964 | Employment |
| Industrial Energy* | Industrial | Electricity | SCE | BAU | - | - | - | - | - | - | None |
| Agricultural Energy | Agricultural | Electricity | SCE | BAU | 49,786 | 49,936 | 52,310 | 52,743 | 54,306 | 57,434 | Employment |
| Total Electricity Emissions | | | | | 141,523 | 142,259 | 147,002 | 148,441 | 151,151 | 156,569 | |

Note: No propane usage is assumed because the number of SoCal Gas residential customers in 2015 (32,717) is more than the number of households in the unincorporated area according to the County's background report (32,191). This means there could be more than one natural gas bill sent to a household considered by the County (See the Demographics tab).

Source: Data requests from SoCal Gas and Southern California Edison for customers in the unincorporated County.

* Industrial electricity use was not available due to CPUC 15/15 rule that states that any data provided by a utility must have more than 15 customers and no single customer's data accounts for more than 15 percent of total aggregated data.

Transportation

Ventura County Greenhouse Gas Emissions Inventory and Forecast - 2015 - 2050

Emissions Summary (MTCO2e)

| BAU Forecast | 2015 | 2020 | 2030 | 2040 | 2050 | Scaling Factor |
|------------------------|----------------|----------------|----------------|----------------|----------------|-------------------------------------------|
| On-Road Transportation | 690,265 | 701,749 | 724,717 | 747,685 | 770,653 | Forecasted VMT and EMFAC Emission Factors |
| Rail | 2,488 | 2,616 | 2,716 | 2,768 | 2,814 | Countywide population |
| Total | 692,753 | 704,364 | 727,433 | 750,452 | 773,467 | |

| Adjusted Forecast | 2015 | 2020 | 2030 | 2040 | 2050 | Scaling Factor |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|-----------------------|
| On-Road Transportation (Leg Adjusted) | 690,265 | 622,647 | 484,342 | 443,587 | 447,418 | Forecasted VMT |
| Rail | 2,488 | 2,616 | 2,716 | 2,768 | 2,814 | Countywide population |
| Total | 692,753 | 625,263 | 487,058 | 446,355 | 450,232 | |

On-Road Transportation Activity in 2015

Unincorporated County VMT

| VMT Calculations | Source | 2015 Annual VMT | 2020 Annual VMT | 2030 Annual VMT | 2035 Annual VMT | 2040 Annual VMT | 2050 Annual VMT |
|--------------------------|------------------------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 100% Internal, 50% I-E * | Adjusted from County-wide based on unincorporated VMT percentage | 1,807,538,340 | 1,837,618,567 | 1,897,779,022 | 1,927,859,249 | 1,957,939,476 | 2,018,099,931 |
| Urban Bus VMT** | | 120,450 | 120,450 | 120,450 | 120,450 | 120,450 | 120,450 |
| Total Annual VMT | | 1,807,658,790 | 1,837,739,017 | 1,897,899,472 | 1,927,979,699 | 1,958,059,926 | 2,018,220,381 |

Scaling Factor: Unincorporated County Population Growth

County-wide VMT

| VMT Calculations | Source | 2012 Average Daily VMT | 2012 Annual VMT | 2040 Average Daily VMT | 2040 Annual VMT | 2015 Annual VMT (Interpolated) | 2020 Annual VMT (Interpolated) | 2030 Annual VMT (Interpolate) | 2035 VMT (Interpolated) | 2050 VMT |
|--------------------------------------------------------------------------------------|---------------------------|------------------------|-----------------|------------------------|-----------------|--------------------------------|--------------------------------|-------------------------------|-------------------------|---------------|
| Internal-Internal | VCTC Model | 10,746,259 | 3,922,384,526 | 11,731,596 | 4,282,032,422 | 3,960,918,229 | 4,025,141,068 | 4,153,586,745 | 4,217,809,584 | 4,410,478,099 |
| Internal-External (unincorporated Ventura to areas south and east of Ventura County) | VCTC Model * | 15,537,451 | 5,671,169,732 | 17,026,660 | 6,214,730,729 | 5,729,408,411 | 5,826,472,874 | 6,020,601,802 | 6,117,666,265 | 6,408,859,656 |
| Internal-External (unincorporated Ventura to north areas of Ventura County) | Calculated | | | | 35,472,890 | 25,050,315 | 27,134,830 | 31,303,860 | 33,388,375 | 39,641,920 |
| 50% Internal-External | Calculation (RTAC Method) | | | | 3,125,101,810 | 2,877,229,363 | 2,926,803,852 | 3,025,952,831 | 3,075,527,320 | 3,224,250,788 |
| 100% Internal, 50% I-E * | Calculation (RTAC Method) | | | | 7,407,134,232 | 6,838,147,592 | 6,951,944,920 | 7,179,539,576 | 7,293,336,904 | 7,634,728,888 |

*Source: Jim Damkowitz 11/7/2018 - Email to Ascent Environmental. Note: This VMT only includes light duty and heavy duty vehicle trips. It is assumed that this VMT does not include bus trips. Bus VMT is added separately.

** There is only one bus route in Ventura County that stops in the unincorporated area: Line 16 of Gold Coast Transit. The distance travelled by that route within the unincorporated area is about 10 miles. It travels along Ventura Ave between Ventura and Ojai, with stops in between. There are 17 northbound trips and 16 southbound trips daily, according to Gold Coast Transit route schedules. This results in an annual VMT of 120,450 VMT per year. This excludes bus VMT not associated with this route.

Note: The Regional Transportation Advisory Committee's recommended approach to calculating VMT is based on CARB's guidance for MPOS (https://www.arb.ca.gov/cc/sb375/staff_report_sb375_targets_update.pdf)

Transportation

Adjustment for I-X trips north of Ventura*

| | Source | 2010 | 2012 | 2020 | 2040 | 2015 (Interpolated) | 2030 | 2035 | 2050 |
|-----------------------------------------------------------------------------|------------|--------|------------|------------|------------|---------------------|------------|------------|---------------|
| Daily VMT I-X/X-I Santa Barbara County - Entire Ventura County (SB/VC)** | SBCAG | 62,920 | | 74,342 | 97,186 | 68,631 | 85,764 | 91,475 | 108,608 |
| Daily VMT I-X/X-I South and East Areas - Entire Ventura County (SE/VC)** | VCTC Model | | 15,537,451 | 15,962,939 | 17,026,660 | 15,697,009 | 16,494,799 | 16,760,729 | 17,558,519.61 |
| Ratio of SB/VC to SE/VC *** | Calculated | | | 0.00466 | 0.00571 | 0.00437 | 0.00520 | 0.00546 | 0.00619 |

*According to Jim Damkowitz, the VCTC model excludes trips north of Ventura County because the VCTC model is based on SCAG's model which does not include Santa Barbara County

** Includes unincorporated areas AND cities

*** This ratio is applied to SB/VC VMT to estimate the VMT between SB County and Unincorporated Ventura County

Unincorporated VMT Adjustment

VMT Split by Boundary Method According to HPMS data

| | | |
|-------------------------------------------------|-------------------|--------------------------------|
| Unincorporated County Local Road VMT (Boundary) | 1,394,030 | HPMS |
| Unincorporated County VMT SHS VMT Boundary | 3,519,851 | GHD via Caltrans Volume Report |
| Other Unincorporated VMT Boundary | 22,950 | HPMS |
| Total Unincorporated VMT (Boundary) | 4,936,831 | |
| Total Incorporated Local Road VMT (Boundary) | 6,689,160 | HPMS |
| Total Incorporated SHS VMT (Boundary) | 7,037,589 | GHD via Caltrans Volume Report |
| Other Incorporated VMT | 13,080 | HPMS |
| Total Incorporated VMT (Boundary) | 13,739,829 | |
| Percent Nonincorporated | 26.4% | |

VMT Distribution in Unincorporated County by vehicle class

| | |
|------------|--------|
| Light Duty | 93% |
| Heavy Duty | 7% |
| Buses | 0.054% |

Source: SCAG 2016 RTP model. Provided by Annabel Drayton VCREA - Email to Ascent Environmental 11/15/2018

On-Road Transportation Emissions Calculations

| Annual VMT | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Light Duty and Heavy Duty VMT | 1,807,538,340 | 1,837,618,567 | 1,897,779,022 | 1,927,859,249 | 1,957,939,476 | 2,018,099,931 |
| Bus VMT | 120,450 | 120,450 | 120,450 | 120,450 | 120,450 | 120,450 |

| VMT Distribution | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 |
|------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Light Duty | 1,686,431,501 | 1,714,496,323 | 1,770,625,968 | 1,798,690,791 | 1,826,755,613 | 1,882,885,258 |
| Heavy Duty | 121,106,839 | 123,122,244 | 127,153,053 | 129,168,458 | 131,183,863 | 135,214,672 |
| Buses | 120,450 | 120,450 | 120,450 | 120,450 | 120,450 | 120,450 |

| EMFAC 2017 Weighted Vehicle Emission Factors for Ventura County | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 |
|-----------------------------------------------------------------|-------|----------|----------|----------|----------|-------------|
| gCO ₂ /mi | | | | | | |
| Light Duty | 360 | 317.047 | 235.859 | 217.894 | 209.180 | 204.4384 |
| Heavy Duty | 677 | 637.628 | 521.578 | 486.947 | 465.748 | 459.3973089 |
| Buses | 1,502 | 1461.054 | 1358.058 | 1305.580 | 1273.023 | 1242.449754 |

| gCH ₄ /mi | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 |
|----------------------|-------|-------|-------|-------|-------|-------------|
| Light Duty | 0.011 | 0.006 | 0.003 | 0.002 | 0.002 | 0.002025088 |
| Heavy Duty | 0.019 | 0.015 | 0.016 | 0.017 | 0.017 | 0.018022341 |
| Buses | 1.622 | 1.584 | 1.563 | 1.580 | 1.602 | 1.620750263 |

| gN ₂ O/mi | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 |
|----------------------|--------|---------|-------|-------|---------|-------------|
| Light Duty | 0.0001 | 0.00008 | 0.000 | 0.000 | 0.00004 | 3.88601E-05 |
| Heavy Duty | 0.0003 | 0.00029 | 0.000 | 0.000 | 0.00044 | 0.000474812 |
| Buses | 0.0039 | 0.00388 | 0.006 | 0.007 | 0.00828 | 0.010049969 |

| gCO _{2e} /mi | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 |
|-----------------------|-------|-------|-------|-------|-------|-------|
| Light Duty | 361 | 317 | 236 | 218 | 209 | 205 |
| Heavy Duty | 677 | 638 | 522 | 488 | 466 | 460 |
| Buses | 1,549 | 1,506 | 1,403 | 1,352 | 1,320 | 1,290 |

TOTAL On-Road Vehicle Emissions (Legislatively Adjusted)

| MTCO _{2e} | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 |
|--------------------|---------|---------|---------|---------|---------|---------|
| Light Duty | 608,051 | 543,897 | 417,783 | 392,066 | 382,251 | 385,060 |
| Heavy Duty | 82,027 | 78,569 | 66,389 | 62,973 | 61,177 | 62,203 |
| Buses | 187 | 181 | 169 | 163 | 159 | 155 |
| TOTAL | 690,265 | 622,647 | 484,342 | 455,201 | 443,587 | 447,418 |

TOTAL On-Road Vehicle Emissions (BAU)

| MTCO _{2e} | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 |
|--------------------|---------|---------|---------|---------|---------|---------|
| Light Duty | 608,051 | 618,170 | 638,408 | 648,527 | 658,646 | 678,884 |
| Heavy Duty | 82,027 | 83,392 | 86,122 | 87,487 | 88,852 | 91,582 |
| Buses | 187 | 187 | 187 | 187 | 187 | 187 |
| TOTAL | 690,265 | 701,749 | 724,717 | 736,201 | 747,685 | 770,653 |

Vehicle Category assignments based on EMFAC 2007 Vehicle Categories used in EMFAC 2017

| SCAG Vehicle Category | EMFAC 2007 Vehicle Category |
|-----------------------|-----------------------------|
| Light Duty | LDA |
| Light Duty | LDT1 |
| Light Duty | LDT2 |
| Light Duty | LHDT1 |
| Light Duty | LHDT2 |
| Light Duty | MCY |
| Heavy Duty | HHDT |
| Heavy Duty | MDV |
| Heavy Duty | MH |
| Heavy Duty | MHDT |
| Buses | OBUS |
| Buses | SBUS |
| Buses | UBUS |

Locomotive Emissions in 2015

| | Track length through the unincorporated Count (mi) | Number of One Way Trips per year | Annual Locomotive Miles Travelled | Emissions per BTU of Diesel | | | | | Locomotive Emissions | | | |
|--------------------------|----------------------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------|-------------|------------|------------|--------------|----------------------|--------------|--------------|--|
| | | | | 2015 BTU per train-mile | g CO2/BTU | g CH4/BTU | g N2O/BTU | MT CO2/BTU | MT CH4/BTU | MT N2O/BTU | MT CO2e | |
| Amtrak Passenger Rail | 27.1 | 3640 | 98,644 | 288,375 | 0.073453237 | 5.7554E-06 | 1.8705E-06 | 2,089 | 0.164 | 0.053 | 2,108 | |
| Metrolink Passenger Rail | 11.4 | 1560 | 17,784 | 288,375 | 0.073453237 | 5.7554E-06 | 1.8705E-06 | 377 | 0.030 | 0.010 | 380 | |
| Total | | | | | | | | 2,466 | 0.193 | 0.063 | 2,488 | |
| Source | GIS | Amtrak schedule, Metrolink schedule | Transportation Energy Data Book 2017 (Table 9.10 - passenger rail, Table 9.8 - freight rail) | | | | | | | | | |

Method: U.S. Community Protocol - Equation TR.5.1.

Off-Road Vehicles and Equipment

Ventura County Greenhouse Gas Emissions Inventory and Forecast - 2015 - 2050

Emissions Summary (MTCO2e) (Legislatively Adjusted BAU and BAU)

| | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | Scaling Factor |
|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------------------------------------------------------|
| ConstMin | 15 | 15 | 16 | 16 | 16 | 17 | Employment |
| Industrial | 8 | 8 | 9 | 9 | 9 | 10 | Employment |
| Light Commercial | 4 | 4 | 4 | 4 | 4 | 4 | Employment |
| Portable Equipment | 4 | 4 | 4 | 4 | 4 | 4 | Population (to represent residential landscaping activity) |
| Oil Drilling | 20 | 21 | 21 | 22 | 22 | 24 | Employment |
| TRU | 1 | 1 | 1 | 1 | 1 | 1 | Employment |
| Offroad Emissions | 52 | 52 | 54 | 55 | 56 | 59 | |

Offroad Emissions in 2015 for Unincorporated Ventura County

| | MT CO2 | MT CH4 | MT N2O | MT CO2e | Scaled to unincorporated area by | % total GHG |
|--------------------------|---------------|--------------|--------------|-----------|----------------------------------|---------------|
| AirGrSupp* | - | 0.000 | 0.000 | 0 | Excluded | 0.0% |
| Commercial Harborcraft | 0.000 | 0.000 | 0.000 | 0 | Excluded | 0.0% |
| Cargo Handling Equipment | 0.000 | 0.000 | 0.000 | 0 | Excluded | 0.0% |
| ConstMin | 14.626 | 0.003 | 0.001 | 15 | Jobs | 28.7% |
| Industrial | 7.929 | 0.001 | 0.001 | 8 | Jobs | 16.0% |
| Light Commercial | 3.298 | 0.004 | 0.001 | 4 | Jobs | 6.9% |
| Locomotive | 0.000 | 0 | - | 0 | Population | 0.0% |
| Military | 0.000 | 0.000 | 0.000 | 0 | Excluded | 0.0% |
| Ocean Going Vessels | 0.000 | 0.000 | 0.000 | 0 | Excluded | 0.0% |
| Oil Drilling | 20.212 | 0.002 | 0.001 | 20 | All in unincorporated | 39.4% |
| Portable Equipment | 3.834 | 0.001 | 0.000 | 4 | Population | 7.5% |
| TRU | 0.728 | 0.001 | 0.000 | 1 | Jobs | 1.4% |
| Total | 50.626 | 0.013 | 0.003 | 52 | | 100.0% |

Note: Off-road Agricultural equipment included under the Agriculture Sector

*Camarillo, Oxnard, and Santa Paula Airports are located in incorporated areas. Other airports are military. Thus, no airport ground support emissions are attributed to unincorporated County

Offroad

OFFROAD 2017 outputs for 2015 for Entire Ventura County

| | Fuel Type | Fuel Use (gal/year) | Tons CO2/day | Tons CH4/day | Tons N2O/day | MT CO2e | Tons NOx/day (to calculate N2O) |
|---------------------------|-----------|---------------------|---------------|--------------|--------------|------------|---------------------------------|
| AirGrSupp | Diesel | 1,874 | 0.06 | 0.00 | 0.00 | 0 | 0.001 |
| AirGrSupp | Gasoline | 11,067 | 0.27 | 0.00 | 0.00 | 0 | 0.001 |
| AirGrSupp | Nat Gas | 1,241 | 0.02 | 0.00 | 0.00 | 0 | 0.000 |
| Commercial Harborcraft | Diesel | 4,874,984 | 21.18 | 0.03 | 0.00 | 26 | 1.951 |
| Cargo Handling Equipment | Diesel | 69,035 | 2.13 | 0.00 | 0.00 | 2 | 0.008 |
| ConstMin | Diesel | 4,022,763 | 123.93 | 0.02 | 0.00 | 138 | 1.235 |
| ConstMin | Gasoline | 309,600 | 5.00 | 0.01 | 0.00 | 6 | 0.042 |
| Industrial | Diesel | 463,136 | 14.27 | 0.00 | 0.00 | 16 | 0.148 |
| Industrial | Gasoline | 1,020,595 | 22.82 | 0.01 | 0.00 | 27 | 0.104 |
| Industrial | Nat Gas | 1,815,674 | 32.81 | 0.00 | 0.01 | 38 | 0.155 |
| Light Commercial | Diesel | 249,415 | 7.42 | 0.00 | 0.00 | 8 | 0.066 |
| Light Commercial | Gasoline | 1,082,860 | 17.29 | 0.03 | 0.01 | 22 | 0.137 |
| Light Commercial | Nat Gas | 239,429 | 4.36 | 0.00 | 0.00 | 5 | 0.014 |
| Locomotive | Diesel | - | 0.00 | 0.00 | 0.00 | 0 | 0.071 |
| Military | Diesel | 66,324 | 2.00 | 0.00 | 0.00 | 2 | 0.015 |
| Ocean Going Vessels | Diesel | 14,249,266 | 451.29 | 0.15 | 0.01 | 506 | 13.513 |
| Oil Drilling | Diesel | 594,860 | 18.34 | 0.00 | 0.00 | 20 | 0.133 |
| Portable Equipment | Diesel | 981,997 | 30.27 | 0.00 | 0.00 | 34 | 0.259 |
| TRU | Diesel | 4,074 | 6.42 | 0.01 | 0.00 | 7 | 0.361 |
| Total | | 30,058,194 | 759.87 | 0.27 | 0.04 | 859 | 18.216 |
| Diesel Only Totals | | 25,577,728 | 677.30 | 0.22 | 0.03 | 761 | 18 |

Source: OFFROAD2017 (<https://www.arb.ca.gov/orion/>)

OFFROAD 2017 outputs for 2015 for Entire Ventura County

| Demographics Category | Percent in Unincorporated Area | Source |
|-----------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Population | 11% | Department of Finance |
| New Housing Units | 34% | DOF 2017/2018 (http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/) |
| Households | 12% | Background Report |
| Jobs | 10% | Background Report |

Solid Waste GHG Emissions

Ventura County Greenhouse Gas Emissions Inventory and Forecast - 2015 - 2050

BAU Emissions Summary (MTCO2e)

| | 2015 | 2020 | 2030 | 2040 | 2050 | Calculation Method |
|------------------|----------------|----------------|----------------|----------------|----------------|--------------------------------------------------------------------|
| Waste Generation | 34,568 | 34,971 | 35,174 | 35,287 | 35,515 | Population |
| Waste in Place | 298,599 | 303,251 | 299,589 | 271,079 | 245,283 | Landfill Tonnages, Landfill open and closure dates, and Decay Rate |
| Total | 333,167 | 338,221 | 334,763 | 306,366 | 280,798 | |

Legislatively Adjusted BAU Emissions Summary (MTCO2e)

| | 2015 | 2020 | 2030 | 2040 | 2050 | Calculation Method |
|------------------|----------------|----------------|----------------|----------------|----------------|----------------------------------------------------------------|
| Waste Generation | 34,568 | 20,360 | 16,851 | 16,941 | 17,122 | Population, AB 341, SB 1383 |
| Waste in Place | 298,599 | 303,251 | 299,589 | 271,079 | 245,283 | Landfill Tonnages, Landfill open and closure dates, Decay Rate |
| Total | 333,167 | 323,611 | 316,441 | 288,020 | 262,405 | |

Solid Waste Emissions in 2015

| Source | MT CO2 | MT CH4 | MT N2O | MT CO2e |
|------------------|----------|---------------|----------|----------------|
| Waste Generation | 0 | 1,235 | 0 | 34,568 |
| Waste-in-Place | 0 | 10,663 | 0 | 298,599 |
| Total | 0 | 11,897 | 0 | 333,167 |

Waste Generation Scaling & Legislative Adjustment

| | 2014 | 2015 | 2020 | 2030 | 2040 | 2050 | Scaling Factor/Calculation Method |
|------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|----------------------------------------------------------------------------------------------------------------------|
| Delivered Tonnage from Unincorporated Ventura Co | 124,057 | 116,403 | 117,760 | 118,444 | 118,827 | 119,594 | Population |
| BAU Waste Generation Emissions MTCO2e | | 34,568 | 34,971 | 35,174 | 35,287 | 35,515 | Delivered Tonnage from Unincorporated Ventura County |
| AB 341 Commercial Recycling - 75% Diversion for Commercial Solid Waste | | | -24,482 | -24,624 | -24,704 | -24,863 | Delivered Tonnage, Percent of commercial waste (w/o organics) out of all waste disposed, and 75% diversion rate |
| SB 1383 Organic Waste Diversion Regs | | | -24,716 | -37,075 | -37,075 | -37,075 | 2015 Tonnage, Percent of organics out of all waste disposed, 50% diversion in 2020, and 75% diversion rate post-2020 |
| Tonnage w/legislative adjustments | | | 68,562 | 56,745 | 57,048 | 57,657 | Calculated from values above |
| GHG Emissions w/Legislative Adjustments | | | 20,360 | 16,851 | 16,941 | 17,122 | 2015 waste emission rate and anticipated tonnage with legislations |

Source: CalRecycle Annual Solid Waste Disposal Reports <https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Statewide/Disposal>

Waste Generation Emissions in 2015

| Receiving Landfill | Tonnage Delivered from Unincorporated Ventura County Only | Total ADC | Percent of Total Tonnage | Percent of year under LFG collection or control in 2016 (%) | Generated Methane Emissions with LFG Capture (MT CH4) | MT CO2 | MT CH4 | MT N2O | MT CO2e | % total |
|-----------------------------------------|-----------------------------------------------------------|---------------|--------------------------|-------------------------------------------------------------|-------------------------------------------------------|--------|--------------|--------|---------------|---------------|
| Antelope Valley Public Landfill | 47 | 3 | 0% | 0% | 2 | | 2 | | 52 | 0.1% |
| Azusa Land Reclamation Co. Landfill | 84 | | 0% | 0% | 3 | | 3 | | 87 | 0.3% |
| Bakersfield Metropolitan (Bena) SLF | 353 | | 0% | 0% | 13 | | 13 | | 364 | 1.1% |
| Calabasas Landfill | 3,160 | 2,597 | 3% | 100% | 53 | | 53 | | 1,483 | 4.3% |
| Chiquita Canyon Sanitary Landfill | 5,954 | | 5% | 100% | 55 | | 55 | | 1,534 | 4.4% |
| Commerce Refuse-To-Energy Facility | | | 0% | 100% | - | | - | | - | 0.0% |
| El Sobrante Landfill | 32 | | 0% | 100% | 0 | | 0 | | 8 | 0.0% |
| Frank R. Bowerman Sanitary LF | 23 | | 0% | 100% | 0 | | 0 | | 6 | 0.0% |
| H.M. Holloway Inc. | 27 | | 0% | 0% | 1 | | 1 | | 28 | 0.1% |
| Lancaster Landfill and Recycling Center | 1 | 2 | 0% | 0% | 0 | | 0 | | 3 | 0.0% |
| Olinda Alpha Sanitary Landfill | 90 | | 0% | 100% | 1 | | 1 | | 23 | 0.1% |
| Simi Valley Landfill & Recycling Center | 27,984 | 4,463 | 24% | 100% | 298 | | 298 | | 8,357 | 24.2% |
| Southeast Resource Recovery Facility | | | 0% | 0% | - | | - | | - | 0.0% |
| Tajiguas Sanitary Landfill | 94 | 34 | 0% | 100% | 1 | | 1 | | 33 | 0.1% |
| Toland Road Landfill | 78,554 | 9,153 | 67% | 100% | 807 | | 807 | | 22,591 | 65.4% |
| Total Ventura Unincorporated | 116,403 | 16,252 | | | 1,235 | | 1,235 | | 34,568 | 100.0% |

Source: CalRecycle, EPA LMOP Database, US Community Protocol Equation SW.4.1

Solid Waste

Landfill Gas Collection Start Dates

| Landfill | LFG Project Start date | |
|-----------------------------------------|------------------------|---------------------------------------------------------------------|
| Antelope Valley Public Landfill | 1/1/2020 | <-indicates planned but no current project. No start date indicated |
| Azusa Land Reclamation Co. Landfill | 1/1/2020 | <-indicates planned but no current project. No start date indicated |
| Bakersfield Metropolitan (Bena) SLF | 6/30/2016 | |
| Calabasas Landfill | 10/1/2002 | |
| Chiquita Canyon Sanitary Landfill | 11/23/2010 | |
| Commerce Refuse-To-Energy Facility | 1/1/1981 | Started in 1981. No date provided. |
| El Sobrante Landfill | 4/1/2004 | |
| Frank R. Bowerman Sanitary LF | 12/8/2007 | |
| H.M. Holloway Inc. | 1/1/2020 | <-supplier of ag gypsum |
| Lancaster Landfill and Recycling Center | 1/1/2020 | <-indicates no current project |
| Olinda Alpha Sanitary Landfill | 6/28/2012 | |
| Simi Valley Landfill & Recycling Center | 4/1/2004 | |
| Southeast Resource Recovery Facility | 1/1/2020 | project shut down in 1993 |
| Tajiguas Sanitary Landfill | 3/31/2000 | |
| Toland Road Landfill | 8/1/2004 | |

Source: EPA's LMOP database

Solid Waste

Waste-in-Place Emissions at Landfills Located in the Unincorporated County in 2015

| Landfill/Disposal Site | Waste-in-Place (Tons) * | Status | Has LFG Capture? | Date Open | Date Closed | Average Tons Disposed Annually | Fugitive Emissions | | | |
|-----------------------------------------|---------------------------------------|--------------------------|-------------------------------------------|-----------|-------------|--------------------------------|--------------------|---------------|----------|----------------|
| | | | | | | | MT CO2 | MT CH4 | MT N2O | MT CO2e |
| Alden V Johnson | ? | Closed | No | ? | 1967 | | | | | |
| Arnaz Road | ? | Closed | No | ? | ? | | | | | |
| Bailard Landfill** | 3,150,000 | Closed | Yes | 1961 | 1996 | 90,000 | | 1,848 | 51,751 | |
| Balcom Canyon II | ? | Closed/unpermitted | No | ? | 1986 | | | | | |
| Balcom Canyon III | ? | Closed/unpermitted | No | ? | 1997 | | | | | |
| BMB Norcom 355 | inert debris/engineered fill | Inactive | No | ? | ? | | | | | |
| Burns Property DS | 400 CY construction/demolition, inert | Closed | No | ? | 2008 | | | | | |
| Elkins Ranch 1980 | ? | Closed/unpermitted | No | ? | ? | | | | | |
| Fishback Illegal Disposal Site (IDS) | ? | Closing | No | ? | ? | | | | | |
| Lagoon Landfill | ? | Closed/Naval with | No | 1952 | 1975 | | | | | |
| Ojai County 1964 | ? | Closed | No | ? | 1964 | | | | | |
| Otto Hopkins | ? | Closed | No | ? | 1996 | | | | | |
| Ozena 1967 Converted | ? | Closed/unpermitted | No | ? | ? | | | | | |
| Ozena Modified Sanitary Landfill** | 3,120 | Closed | No | 1975 | 1986 | 283.64 | | 2 | 55 | |
| Phillip and Alice Lee Property | ? | To Be Determined/ | No | ? | ? | | | | | |
| Piru Dump | ? | Closed/violation | No | ? | 1971 | | | | | |
| Rockwell International - Old Area I LF | ? | Closed (artillery field) | No | 1955 | 2005 | | | | | |
| Rockwell International - Old Area II LF | ? | Closed (artillery field) | No | ? | ? | | | | | |
| Runway Landfill/Pt Mugu | ? | Closed (electroplating) | No | ? | ? | | | | | |
| Saticoy County 1962 | ? | Closed | Facility currently studying LFG potential | 1946 | 1963 | | | | | |
| Somis Dump | ? | Closed/unpermitted | No | ? | ? | | | | | |
| Simi Valley Landfill*** | 19,966,988 | Open | Yes | 1970 | 2024 | 489,107 | | 6,145 | 0.126 | 172,093 |
| Toland Road Landfill*** | 7,046,887 | Active | Yes | 1970 | 2027 | 123,630 | | 2,668 | 0.028 | 74,701 |
| TOTAL | | | | | | | 0 | 10,663 | 0 | 298,599 |
| Total from Closed Landfills | 23,120,108 | | | | | | 0 | 10,663 | 0 | 298,599 |

Average year of closed LFs 1969 2022

* Tonnage data for landfills with "?" were not available. Based on the sparse documentation available for these individual landfills, many of these landfills without tonnage data are small unpermitted sites or military disposal sites. It is assumed that waste-in-place emissions from these landfills are minimal. Thus, calculations exclude landfills without tonnage data.

** GHG emissions calculated from CARB's LET Model based on landfill's open and closure dates and average annual tons disposed. The LET reports emissions in MTCO2e assuming a GWP factor of 21 for CH4. Annual tons disposed were input for each year that the landfill was open. The model calculated the decay after the closure of the landfill. Results were taken for the 2015 output year.

*** GHG emissions from EPA reports in the Facility Level Information on GreenHouse gases Tool (FLIGHT) database (https://ghgdata.epa.gov/ghgp/main.do?site_preference=normal)

Source: CalRecycle, EPA LMOP Database, EPA Greenhouse Gas Emissions from Large Facilities, CARB Landfill Emissions Tool model (<https://www.arb.ca.gov/cc/landfills/tool.htm>)

Note: Excludes composting facilities, transfer stations, inert debris disposal sites, and planned landfills not yet in operation.

Waste In Place Forecast

| Landfill/Disposal Site | 2020 | | 2030 | | 2035 | | 2040 | | 2050 | |
|-----------------------------------|---------------|----------------|---------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|
| | MT CH4 | MT CO2e | MT CH4 | MT CO2e | MT CH4 | MT CO2e | MT CH4 | MT CO2e | MT CH4 | MT CO2e |
| Bailard Landfill* | 1,598 | 44,731 | 1,308 | 36,623 | 1,183 | 33,137 | 1,071 | 29,984 | 808 | 22,611 |
| Ozena Modified Sanitary Landfill* | 2 | 49 | 1 | 40 | 1 | 36 | 1 | 33 | 1 | 25 |
| Toland Road Landfill** | 2,794 | 78,240 | 2,842 | 79,589 | 2,572 | 72,015 | 2,327 | 65,162 | 1,905 | 53,350 |
| Simi Valley Landfill** | 6,437 | 180,230 | 6,548 | 183,337 | 5,925 | 165,890 | 5,361 | 150,104 | 4,389 | 122,895 |
| Total | 10,830 | 303,251 | 10,700 | 299,589 | 9,681 | 271,079 | 8,760 | 245,283 | 7,103 | 198,881 |

*Emission forecasts for these landfills were taken directly from results from CARB's Landfill Emissions Tool (LET) model, given the current disposal tonnage at each landfill and the open and closure dates.

**Emissions forecasts for these landfills are scaled from 2015 levels using results from the LET model. Note that the LET model is used for decay forecast rates only and not used to estimate 2015 emissions. 2015 emissions for Toland and Simi Valley were based on reported fugitive emissions from the EPA. The LET model does not account for any fugitive methane capture or other landfill management methods and, thus, has very different 2015 emissions estimates. Bailard and Ozena results for 2015 and forecasts were taken directly from the LET model due to lack of reported data. This approach assumes that fugitive methane and other landfill management methods will continue in proportion to the on-site waste volume.

Waste in Place Estimates Using CARB's Landfill Emissions Tool

| Landfill/Disposal Site | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 |
|------------------------|--------|--------|--------|--------|--------|--------|
| | MT CH4 | MT CH4 | MT CH4 | MT CH4 | MT CH4 | MT CH4 |
| Toland Road Landfill | 5,332 | 5,585 | 5,682 | 5,141 | 4,652 | 3,808 |
| Simi Valley Landfill | 14,780 | 15,481 | 15,748 | 14,250 | 12,894 | 10,556 |

Additional Background Data and Assumptions

Method for Calculating Solid Waste Generation Emissions

| Equation SW.4.1 Methane Emissions | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------|
| $CH_4 \text{ Emissions} = GWP_{CH_4} * (1 - CE) * (1 - OX) * M + \sum_i P_i * EF_i$ | | |
| Where: | | |
| Term | Description | Value |
| CH ₄ emissions | = Community generated waste emissions from waste M (mtCO ₂ e) | Result |
| GWP _{CH₄} | = CH ₄ global warming potential | |
| M | = Total mass of waste entering landfill (wet short ton) | User Input |
| P _i | = Mass fraction of waste component i | User Input |
| EF _i | = Emission factor for material i (mtCH ₄ /wet short ton) | Table SW.5 |
| CE | = Default LFG Collection Efficiency | No Collection, 0 Collection, 0.75 |
| OX | = Oxidation rate | 0.10 |
| Source: As developed by ICLEI staff and Solid Waste Technical Advisory Committee. Emissions factors from U.S. EPA Municipal Solid Waste Publication (2008) available at http://www.epa.gov/epawaste/nonhaz/municipal/pubs/msw2008data.pdf | | |

| | | |
|---------------------------------------------|-------|------------------------------------------------------------------------------------------------|
| Mixed MSW for Unincorporated Ventura County | 0.041 | CalRecycle Waste Characterization for Unincorporated Ventura County and WARM emission factors. |
|---------------------------------------------|-------|------------------------------------------------------------------------------------------------|

Imported Water

Ventura County Greenhouse Gas Emissions Inventory and Forecast - 2015 - 2050

Emissions Summary (MTCO₂e)

| | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | Calculation Method/Scaling Factor |
|-------------------------------|-------|-------|-------|-------|-------|-------|-----------------------------------|
| Imported Water (BAU) | 5,002 | 5,105 | 5,165 | 5,195 | 5,211 | 5,245 | See below |
| Imported Water (Leg Adjusted) | 5,002 | 4,560 | 3,443 | 2,306 | 1,160 | 0 | See below |

| Imported Water Emissions in 2015 | | | | | |
|----------------------------------|------------------|--------------------------|-----------------------|-----------|---------------|
| Source | MG Supplied/year | Electricity Use (kWh/MG) | Electricity Use (kWh) | EF Source | Percent of MG |
| Groundwater | 73,043 | 240 | 17,558,763 | SCE | 83% |
| SWP | 3,598 | 236 | 848,885 | CA Avg | 4% |
| Surface Water | 7,387 | 240 | 1,775,646 | SCE | 8% |
| Recycled Water | 3,635 | 240 | 873,888 | SCE | 4% |
| TOTAL | 87,663 | | 21,057,182 | | |
| TOTAL Local | 84,065 | | 20,208,297 | | 96% |
| TOTAL Imported | 3,598 | | 848,885 | | 4% |

Note: Private groundwater was not available from the Ventura County Water Agencies

| Electricity Emissions Factors (g/kWh) | | | | | | | |
|---------------------------------------|--------|--------|--------|--------|-------|------|-----------------------------------|
| EF Source | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | Calculation Method/Scaling Factor |
| SCE | 240.39 | 214.75 | 160.26 | 106.84 | 53.42 | 0.00 | See Assumptions Tab |
| CA Avg | 235.94 | 210.77 | 157.29 | 104.76 | 52.54 | 0.00 | See Assumptions Tab |

| Electricity Use (kWh) | | | | | | | |
|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------------------|
| Source | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | Calculation Method/Scaling Factor |
| Groundwater | 118,064,545 | 120,507,185 | 121,912,125 | 122,620,032 | 123,016,266 | 123,811,151 | Population |
| SWP | 21,198,226 | 21,636,797 | 21,889,051 | 22,016,154 | 22,087,297 | 22,230,017 | Population |
| Surface Water | 8,877,349 | 9,061,013 | 9,166,651 | 9,219,879 | 9,249,672 | 9,309,440 | Population |
| Recycled Water | 331,407 | 338,264 | 342,207 | 344,195 | 345,307 | 347,538 | Population |
| Total | 148,471,528 | 151,543,258 | 153,310,035 | 154,200,259 | 154,698,542 | 155,698,146 | |

| GHG Emissions (MTCO ₂ e) (BAU) | | | | | | | | |
|-------------------------------------------|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------------------------------------------|
| Source | EF Source | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | Calculation Method/Scaling Factor |
| Groundwater | SCE | 28,381 | 28,969 | 29,306 | 29,477 | 29,572 | 29,763 | Change in electricity use. 2015 emission factors. |
| SWP | CA Avg | 5,002 | 5,105 | 5,165 | 5,195 | 5,211 | 5,245 | Change in electricity use. 2015 emission factors. |
| Surface Water | SCE | 2,134 | 2,178 | 2,204 | 2,216 | 2,224 | 2,238 | Change in electricity use. 2015 emission factors. |
| Recycled Water | SCE | 80 | 81 | 82 | 83 | 83 | 84 | Change in electricity use. 2015 emission factors. |
| | TOTAL | 35,597 | 36,333 | 36,757 | 36,970 | 37,090 | 37,329 | |
| | TOTAL Local | 30,595 | 31,228 | 31,592 | 31,776 | 31,878 | 32,084 | |
| | TOTAL Imported | 5,002 | 5,105 | 5,165 | 5,195 | 5,211 | 5,245 | |

| GHG Emissions (MTCO ₂ e) (Legislatively Adjusted) | | | | | | | | |
|--------------------------------------------------------------|-----------------------|---------------|---------------|---------------|---------------|--------------|----------|-----------------------------------------------------------------|
| Source | EF Source | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | Calculation Method/Scaling Factor |
| Groundwater | SCE | 28,381 | 25,879 | 19,538 | 13,101 | 6,572 | 0 | Change in electricity use. Emission factors associated by year. |
| SWP | CA Avg | 5,002 | 4,560 | 3,443 | 2,306 | 1,160 | 0 | Change in electricity use. Emission factors associated by year. |
| Surface Water | SCE | 2,134 | 1,946 | 1,469 | 985 | 494 | 0 | Change in electricity use. Emission factors associated by year. |
| Recycled Water | SCE | 80 | 73 | 55 | 37 | 18 | 0 | Change in electricity use. Emission factors associated by year. |
| | TOTAL | 35,597 | 32,458 | 24,505 | 16,429 | 8,244 | 0 | |
| | TOTAL Local | 30,595 | 27,897 | 21,061 | 14,123 | 7,084 | 0 | |
| | TOTAL Imported | 5,002 | 4,560 | 3,443 | 2,306 | 1,160 | 0 | |

Note: Emissions associated with electricity used to power pumps within the unincorporated County are assumed to be captured in the Building Energy sector

Imported Water

| 2015 Water Use | | | | | | | | | | | | | |
|----------------------------|----------------------------------------------------|---------------------------------------------------------|------------------------|----------------|-----------------------------------------------------------------------------|------------------------|----------------|--------------------------------------------------|---------------|------------|----------------|-----------------------|--------------------|
| Water User/Agency | | 2013 Ventura County Water Supply and Demand (Acre-Feet) | | | 2015 Unincorporated County Water Supply and Demand (Acre Feet) (Calculated) | | | 2015 Water-Related Electricity Use and Emissions | | | | | Emissions (MTCO2e) |
| | | Agriculture | Municipal & Industrial | Total | Agriculture | Municipal & Industrial | Total | Electricity Use (MWh) | | | | | |
| | | | | | | | | Supply | Conveyance | Treatment | Distribution | Total Electricity Use | |
| Surface Water | Casitas MWD | 8,305 | 9,990 | 18,295 | 8,023 | 997 | 9,020 | 0 | 0 | 32 | 3,527 | 3,559 | 856 |
| | City of Ventura | 0 | 4,200 | 4,200 | 0 | 582 | 582 | 0 | 0 | 19 | 228 | 247 | 59 |
| | UWCD | 6,257 | 0 | 6,257 | 6,257 | 0 | 6,257 | 0 | 0 | 0 | 2,447 | 2,447 | 588 |
| | Private | 7,974 | 0 | 7,974 | 7,974 | 0 | 7,974 | 0 | 0 | 0 | 3,118 | 3,118 | 750 |
| Surface Water Total | | 22,536 | 14,190 | 36,726 | 22,254 | 414 | 22,668 | 0 | 0 | 14 | 8,864 | 8,877 | 2,134 |
| Imported Water | UWCD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Calleguas MWD | 5,537 | 105,747 | 111,283 | 4,349 | 6,693 | 11,041 | 0 | 21542 | 308 | -651.44 | 21,198 | 5,002 |
| | Imported SWP Total | 5,537 | 105,747 | 111,283 | 4,349 | 6,693 | 11,041 | 0 | 21,542 | 308 | -651 | 21,198 | 4,899 |
| Groundwater | Casitas MWD | | | | 25 | 3 | 28 | 1 | 0 | 0 | 11 | 12 | 3 |
| | Ojai GMA | 3401 | 2,037 | 5,438 | 3,401 | 237 | 3,638 | 1,067 | 0 | 8 | 1,422 | 2,497 | 600 |
| | FCGMA | 105,346 | 44,949 | 150,295 | 105,346 | 5,224 | 110,570 | 13,147 | 0 | 170 | 43,235 | 56,553 | 13,595 |
| | UWCD | 83,243 | 13,115 | 96,358 | 83,243 | 1,524 | 84,767 | 12,304 | 0 | 50 | 33,146 | 45,499 | 10,938 |
| | Private (unreported) | 24,591 | 4,868 | 29,459 | 24,591 | 566 | 25,157 | 3,648 | 0 | 18 | 9,837 | 13,503 | 3,246 |
| | Groundwater Total | 216,581 | 64,969 | 281,550 | 216,606 | 7,554 | 224,160 | 30,167 | 0 | 246 | 87,652 | 118,065 | 28,382 |
| Recycled Water | Oak Park Water Service | 0 | 790 | 790 | 0 | 92 | 92 | 0 | 0 | 63 | | 63 | 15 |
| | Lake Sherwood CSD | 0 | 484 | 484 | 0 | 56 | 56 | 0 | 0 | 38 | | 38 | 9 |
| | California Water Service Co. | 0 | 644 | 644 | 0 | 75 | 75 | 0 | 0 | 51 | | 51 | 12 |
| | City of Simi Valley/ County 0 Waterworks No. 8 | 0 | 56 | 56 | 0 | 7 | 7 | 0 | 0 | 4 | | 4 | 1 |
| | Camarillo San. District | 1,840 | 46 | 1,886 | 1,840 | 5 | 1,845 | 0 | 0 | 4 | | 4 | 1 |
| | Camrosa Water District Non-Potable | 4,687 | 1,372 | 6,059 | 4,687 | 159 | 4,846 | 0 | 0 | 109 | | 109 | 26 |
| | Camrosa Water District Non-Potable to PVCWD | 3,241 | 0 | 3,241 | 3,241 | 0 | 3,241 | 0 | 0 | 0 | | 0 | 0 |
| | Camrosa Water District CWRP Recycled (Title 22) | 901 | 268 | 1,170 | 901 | 31 | 932 | 0 | 0 | 21 | | 21 | 5 |
| | Moorpark WWTP/County Waterworks No. 1 | 3 | 718 | 721 | 3 | 83 | 86 | 0 | 0 | 57 | | 57 | 14 |
| | City of Ventura/Ventura Water Reclamation Facility | 0 | 700 | 700 | 0 | 25 | 25 | 0 | 0 | 17 | | 17 | 4 |
| | Recycled Water Total | 10,672 | 5,078 | 15,751 | 10,672 | 484 | 11,156 | 0 | 0 | 331 | | 331 | 80 |
| TOTAL | 255,325 | 189,984 | 445,310 | 255,325 | 22,082 | 277,407 | 30,167 | 21,542 | 96,763 | | 148,472 | 35,495 | |

Source: Table 8 of the County of Ventura. 2013 Water Supply and Demand. Prepared for: Ventura County Watershed Protection District. January 2015. No updates as of July 2018

Source: Ventura County 2013 Water Supply and Demand Report

Note: Assumes municipal and industrial water use is proportional to population. Assumes all agricultural water use takes place in the unincorporated County. Agricultural water deliveries are assumed to use non-potable, untreated, water.

Note: Calleguas purchases water from the Metropolitan Water District of Southern California, which gets its water from surface water, SWP, CRA, and the LA Aqueduct.

| Urban Water Energy Intensity Matrix in kWh/MG | | | | | | | |
|--------------------------------------------------|--------------|------------------------|-------|------------|-----|---------------------|-------------|
| Supply | | Conveyance | | Treatment | | Distribution | |
| Surface Water | 0 | SWP-L.A. Basin | 8325 | EPRI (Avg) | 100 | EPRI Avg. | 1200 |
| Groundwater | 4.45/MG/Foot | SWP-Bay Area | 3150 | | | Flat Topography | proposed |
| Ocean Desalination | 13800 | SWP-Central Coast | 3150 | | | Moderate Topography | proposed |
| Brackish Water Desal | 1,240- 5,220 | SWP-San Joaquin Valley | 1510 | | | Hilly Topography | proposed |
| Recycled Water | 0 | CRA-L.A. Basin | 6140 | | | Recycled Water | 1,200-3,000 |
| | | Hetch Hetchy- Bay Area | 0 | | | | |
| | | Mokelumne Aqueduct | 160 | | | | |
| | | Local/Intrabasin | 120 | | | | |
| in kWh/AF | | | | | | | |
| Supply | | Conveyance | | Treatment | | Distribution | |
| Surface Water | - | SWP-L.A. Basin | 2,713 | EPRI (Avg) | 33 | EPRI Avg. | 391 |
| Groundwater (AF/MG/Foot) | 1.45 | SWP-Bay Area | 1,026 | | | Flat Topography | proposed |
| Ocean Desalination | 4,497 | SWP-Central Coast | 1,026 | | | Moderate Topography | proposed |
| Brackish Water Desal | 1,053 | SWP-San Joaquin Valley | 492 | | | Hilly Topography | proposed |
| Recycled Water | - | CRA-L.A. Basin | 2,001 | | | Recycled Water | 684 |
| | | Hetch Hetchy- Bay Area | - | | | | |
| | | Mokelumne Aqueduct | 52 | | | | |
| | | Local/Intrabasin | 39 | | | | |
| Source: CEC-500-2006-118 | | | | | | | |

| Additional Background Data and Assumptions | |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Metropolitan Water District of Southern California Energy Intensity for 2014 (used as a proxy for Calleguas water) | |
| | kWh/AF |
| Conveyance | 1,951 |
| Treatment | 46 |
| Distribution | -59 |
| Source: Metropolitan 2015 UWMP | |
| Average Groundwater Depth in Ventura County | |
| | Well Depth (ft) Source |
| Mira Monte Well | 20 Well located in Upper Ventura River Groundwater Basin. This is the average depth of groundwater in that area. CMWD UWMP AND AWMP - 2016 UPDATE |
| Ojai GMA | 202.3 Appendix B of Ventura's 2013 Groundwater Section |
| FCGMA | 82 Appendix B of Ventura's 2013 Groundwater Section Annual Report |
| UWCD | 100.1 Appendix B of Ventura's 2013 Groundwater Section Annual Report |
| Private (unreported) | 100 Assumed |

Wastewater

Wastewater

Ventura County Greenhouse Gas Emissions Inventory and Forecast - 2015 - 2050

The unincorporated area uses a combination of centralized WWTP treatment at fringe communities near cities and on-site septic tank systems.

| BAU and Legislative Adjusted Emissions Summary (MTCO ₂ e) | | | | | | | |
|----------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------------------------|
| Source | 2015 | 2020 | 2030 | 2035 | 2040 | 2050 | Calculation Method/Scaling Factor |
| Septic Methane Emissions | 5,648 | 5,765 | 5,832 | 5,866 | 5,885 | 5,923 | Population |
| WWTP Process Emissions | 2,498 | 2,550 | 2,580 | 2,595 | 2,603 | 2,620 | Population |
| Total | 8,146 | 8,315 | 8,412 | 8,461 | 8,488 | 8,543 | |

| Wastewater Emissions in 2015 | | | | |
|------------------------------|--------------------|-------------------|--------------------|----------------------|
| Source | MT CO ₂ | MTCH ₄ | MTN ₂ O | MT CO ₂ e |
| Septic Methane Emissions | 0 | 202 | 0 | 5,648 |
| WWTP Process Emissions | 0 | 75 | 1 | 2,498 |
| Total | 0 | 277 | 1 | 8,146 |

| Wastewater Emission Calculations | | | | | |
|---------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------|----------------------|---------------------|-------------------------------------------------------------|
| Wastewater Treatment Emissions | | | | | |
| Type of Treatment | WWTP Service by Percent of Unincorporated Population | Served Population | MT CH ₄ * | MT N ₂ O | Total CO ₂ e Emissions (MT CO ₂ e/yr) |
| Septic Tank Treatment | 53% | 51,613 | 202 | 0.00 | 5,648 |
| Centralized Sewer Treatment | 47% | 46,120 | 75.08 | 1.50 | 2,498 |
| <i>Centralized Aerobic Treatment</i> | 41% | 40,500 | | | |
| <i>Process N₂O Emissions from Effluent Discharge (default N load data)</i> | | | | 0.94 | |
| <i>Centralized Anaerobic Treatment with Cogeneration</i> | 6% | 5,620 | | | |
| <i>Process emissions</i> | | | 74.83 | | |
| <i>Stationary CH₄ from Incomplete Combustion of Digester Gas</i> | | | 0.25 | | |
| <i>Process N₂O Emissions from Effluent Discharge (default N load data)</i> | | | | 0.15 | |
| <i>Process N₂O Emissions from WWTP with Nitrification/Denitrification</i> | <i>assume this applies to all WWTPs</i> | | | 0.40 | |
| | | Total Septic | 202 | 0 | 5,648 |
| | | Total Centralized | 75 | 1 | 2,498 |
| | | Total | 277 | 1 | 8,146 |

* See methods below from EPA Inventory of US GHG Emissions and Sinks

Note: Aerobic treatment does not result in CH₄ emissions

| Background Data and Assumptions | | |
|--------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------|
| Demographics Summary | 2015 | Source |
| Unincorporated Population | 97,733 | Background Report |
| Unincorporated Households | 32,191 | Background Report |
| Approximate Number of Private Septic Systems in County | 17,000 | Email from Ventura County (Shelley Sussman) to Ascent Environmental (Brenda Hom/Erik de Kok) (10/17/2018) |
| Number of Unincorporated HH's on Septic | 17,000 | Assumption |
| Number of Unincorporated HH's on Sewer | 15,191 | Calculation |
| Percent of Unincorporated Population on Septic | 53% | Calculation |

Wastewater

| Wastewater Treatment Capacity and Service Ventura County | | | | | | |
|-------------------------------------------------------------|----------------------------------------|----------------------|---------------------------------------------------|------------------------------------------|------------------------|----------------------------------------------|
| Agency | WWTP Name | Rated Capacity (MGD) | Percent of WW treated from Unincorporated County* | Unincorporated WW treated in WWTPs (MGD) | Anaerobic Treatment? | Total Number of Connections** |
| County Service Area No. 29 | treated by City of Ventura | N/A | | | | 317 |
| County Service Area No. 30 | treated by City of Oxnard | N/A | | | | 510 |
| County Service Area No. 32 | countywide individual sewage disposal | N/A | | | | N/A |
| County Service Area No. 34 | treated by City of Oxnard | N/A | | | | N/A |
| Camarillo Utility Enterprise | treated by Camarillo Sanitary District | N/A | 0% | | | 57 |
| Todd Road Jail | On site WWTP | 0.085 | 100% | 0.09 | No | N/A |
| Ventura County Waterworks District No. 1 | Moorpark Wastewater Treatment Plant | 5 | 15% | 0.75 | No | 10,000 (population) |
| Ventura County Waterworks District No. 16 | On site WWTP | 0.5 | 100% | 0.50 | No | 400 (population) |
| Camarillo Sanitary District | Camarillo WRP | 7.25 | 40% | 2.90 | No | 70,000 (population, city and unincorporated) |
| Ojai Valley Sanitary District | Ojai Valley WWTP | 3 | 63% | 1.88 | No | 20,000 (customers) |
| Saticoy Sanitary District | Jose Flores WWTP | 0.25 | 100% | 0.25 | No | 271 |
| Triunfo Sanitation District | Tapia Water Reclamation Facility | 16 | 21% | 3.38 | No | 12,300 |
| Camrosa Water District | Camrosa Water Reclamation Facility | 1.5 | 100% | 1.50 | No | 6,900 |
| City of Oxnard | City of Oxnard WWTP | 32.7 | 1% | 0.48 | Yes, with cogeneration | 40,000 |
| City of Simi Valley | Water Quality Control Plant | 12.5 | 1% | 0.16 | No | 40,000 (527 unincorporated) |
| City of Thousand Oaks | Hill Canyon Wastewater Treatment Plant | 14 | 9% | 1.22 | Yes, with cogeneration | 130,000 (population) |
| City of Ventura | Ventura Water reclamation facility | 9 | 9% | 0.80 | No | N/A |

* Estimates based on population served.

**From Table 7-3 of the background report

Source: Agency websites.

Percent of Unincorporated Centralised WW treated aerobically 88%
 Percent of Unincorporated Centralised WW treated anaerobically 12%

Residential Wastewater Methods

Data Source: Total unincorporated population. Percentage breakdown of population served by Septic and Sewer systems. Percent breakdown of aerobic and anaerobic

Domestic Wastewater CH₄ Emission Estimates from EPA Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2014

$$\begin{aligned} \text{Emissions from Septic Systems} &= A \\ &= US_{POP} \times (\% \text{ onsite}) \times (EF_{SEPTIC}) \times 1/10^9 \times \text{Days} \end{aligned}$$

$$\begin{aligned} \text{Emissions from Centrally Treated Aerobic Systems} &= B \\ &= [(\% \text{ collected}) \times (\text{total BOD}_5 \text{ produced}) \times (\% \text{ aerobic}) \times (\% \text{ aerobic w/out primary}) + (\% \text{ collected}) \times \\ &(\text{total BOD}_5 \text{ produced}) \times (\% \text{ aerobic}) \times (\% \text{ aerobic w/primary}) \times (1 - \% \text{ BOD removed in prim. treat.})] \times (\% \\ &\text{operations not well managed}) \times (B_0) \times (\text{MCF-aerobic_not_well_man}) \end{aligned}$$

$$\begin{aligned} \text{Emissions from Centrally Treated Anaerobic Systems} &= C \\ &= [(\% \text{ collected}) \times (\text{total BOD}_5 \text{ produced}) \times (\% \text{ anaerobic}) \times (\% \text{ anaerobic w/out primary}) + (\% \text{ collected}) \\ &\times (\text{total BOD}_5 \text{ produced}) \times (\% \text{ anaerobic}) \times (\% \text{ anaerobic w/primary}) \times (1 - \% \text{ BOD removed in prim. treat.})] \\ &\times (B_0) \times (\text{MCF-anaerobic}) \end{aligned}$$

$$\begin{aligned} \text{Emissions from Anaerobic Digesters} &= D \\ &= [(\text{POTW_flow_AD}) \times (\text{digester gas}) / (\text{per capita flow})] \times \text{conversion to m}^3 \times (\text{FRAC_CH}_4) \times (365.25) \times \\ &(\text{density of CH}_4) \times (1 - \text{DE}) \times 1/10^9 \end{aligned}$$

$$\text{Total CH}_4 \text{ Emissions (kt)} = A + B + C + D$$

where,

$$US_{POP} = \text{U.S. population}$$

| | |
|---------------------------------|---------------------------------------------------------------------------------------------------------|
| % onsite | = Flow to septic systems / total flow |
| % collected | = Flow to POTWs / total flow |
| % aerobic | = Flow to aerobic systems / total flow to POTWs |
| % anaerobic | = Flow to anaerobic systems / total flow to POTWs |
| % aerobic w/out primary | = Percent of aerobic systems that do not employ primary treatment |
| % aerobic w/primary | = Percent of aerobic systems that employ primary treatment |
| % BOD removed in prim. treat. | = 32.5% |
| % operations not well managed | = Percent of aerobic systems that are not well managed and in which some anaerobic degradation occurs |
| % anaerobic w/out primary | = Percent of anaerobic systems that do not employ primary treatment |
| % anaerobic w/primary | = Percent of anaerobic systems that employ primary treatment |
| EF _{SEPTIC} | = Methane emission factor (10.7 g CH ₄ /capita/day) – septic systems |
| Days | = days per year (365.25) |
| Total BOD ₅ produced | = kg BOD/capita/day × U.S. population × 365.25 days/yr |
| B ₀ | = Maximum CH ₄ -producing capacity for domestic wastewater (0.60 kg CH ₄ /kg BOD) |
| 1/10 ⁶ | = Conversion factor, kg to kt |
| MCF-aerobic_not_well_man. | = CH ₄ correction factor for aerobic systems that are not well managed (0.3) |
| MCF-anaerobic | = CH ₄ correction factor for anaerobic systems (0.8) |
| DE | = CH ₄ destruction efficiency from flaring or burning in engine (0.99 for enclosed flares) |
| POTW_flow_AD | = Wastewater influent flow to POTWs that have anaerobic digesters (MGD) |
| digester gas | = Cubic feet of digester gas produced per person per day (1.0 ft ³ /person/day) |
| per capita flow | = Wastewater flow to POTW per person per day (100 gal/person/day) |
| conversion to m ³ | = Conversion factor, ft ³ to m ³ (0.0283) |
| FRAC_CH ₄ | = Proportion CH ₄ in biogas (0.65) |
| density of CH ₄ | = 662 (g CH ₄ /m ³ CH ₄) |
| 1/10 ⁹ | = Conversion factor, g to kt |

Process CH₄ Emissions from Anaerobic and facultative treatment lagoons

Equation 10.4 from the LGOP

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Equation 10.4 | Process CH ₄ from Wastewater Treatment Lagoons (default values) |
| Annual CH ₄ emissions (metric tons CO ₂ e) = | |
| $((P \times F_{\text{ind-com}}) \times \text{BOD}_5 \text{ load} \times (1-F_p) \times \text{Bo} \times \text{MCF}_{\text{anaerobic}} \times 365.25 \times 10^{-3}) \times \text{GWP}$ | |

Where:

| Term | Description | Value |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------|
| P | = population served by lagoons adjusted for industrial discharge, if applicable [person] | user input |
| F _{ind-com} | = factor for industrial and commercial co-discharge waste into the sewer system | 1.25 |
| BOD ₅ load | = amount of BOD ₅ produced per person per day [kg BOD ₅ /person/day] | 0.090 |
| F _p | = fraction of BOD ₅ removed in primary treatment, if present | 0.325* |
| Bo | = maximum CH ₄ -producing capacity for domestic wastewater [kg CH ₄ /kg BOD ₅ removed] | 0.6 |
| MCF _{anaerobic} | = CH ₄ correction factor for anaerobic systems | 0.8 |
| 365.25 | = conversion factor [day/year] | 365.25 |
| 10 ⁻³ | = conversion from kg to metric ton [metric ton/kg] | 10 ⁻³ |
| GWP | = Global Warming Potential | 21 |

Source: EPA *Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2007*, Chapter 8, 8-9 (2009) except:
 *F_p: Tchobanoglous, G., F.L. Burton, and H.D. Stensel, *Wastewater Engineering: Treatment and Reuse*, p. 396, 4th Edition (2003).

Stationary CH₄ from Incomplete Combustion of Digester Gas (default)

Equation 10.2 from the LGOP

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Equation 10.2 | Stationary CH ₄ from Incomplete Combustion of Digester Gas (default) |
| Annual CH ₄ emissions (metric tons CO ₂ e) = | |
| $(P \times \text{Digester Gas} \times F_{\text{CH}_4} \times \rho(\text{CH}_4) \times (1-\text{DE}) \times 0.0283 \times 365.25 \times 10^{-6}) \times \text{GWP}$ | |

Where:

| Term | Description | Value |
|-----------------------------|----------------------------------------------------------------------------------------|------------------|
| P | = population served by the WWTP with anaerobic digesters | user input |
| Digester Gas | = cubic feet of digester gas produced per person per day [ft ³ /person/day] | 1.0 |
| F _{CH₄} | = fraction of CH ₄ in biogas | 0.65 |
| ρ(CH ₄) | = density of methane [g/m ³] | 662.00 |
| DE | = CH ₄ Destruction Efficiency | .99 |
| 0.0283 | = conversion from ft ³ to m ³ [m ³ /ft ³] | 0.0283 |
| 365.25 | = conversion factor [day/year] | 365.25 |
| 10 ⁻⁶ | = conversion from g to metric ton [metric ton/g] | 10 ⁻⁶ |
| GWP | = Global Warming Potential | 21 |

Source: EPA *Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2007*, Chapter 8, 8-7 (2009).

Process N₂O Emissions from WWTP with Nitrification/Denitrification

Equation 10.7 from the LGOP

| | |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Equation 10.7 | Process N ₂ O Emissions from WWTP with Nitrification/Denitrification |
| Annual N ₂ O emissions (metric tons CO ₂ e) = | |
| $((P_{\text{total}} \times F_{\text{ind-com}}) \times \text{EF nit/denit} \times 10^{-6}) \times \text{GWP}$ | |

Where:

| Term | Description | Value |
|----------------------|---------------------------------------------------------------------------------------------------------------------|------------------|
| P _{total} | = total population that is served by the centralized WWTP adjusted for industrial discharge, if applicable [person] | user input |
| F _{ind-com} | = factor for industrial and commercial co-discharge waste into the sewer system | 1.25 |
| EF nit/denit | = emission factor for a WWTP with nitrification/denitrification [g N ₂ O/person/year] | 7 |
| 10 ⁻⁶ | = conversion from g to metric ton [metric ton/g] | 10 ⁻⁶ |
| GWP | = N ₂ O Global Warming Potential | 310 |

Source: EPA *Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2007*, Chapter 8, 8-13 (2009).Process N₂O Emissions from Effluent Discharge (default N load data)

Equation 10.10 from the LGOP

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Equation 10.10 | Process N ₂ O Emissions from Effluent Discharge (default N load data) |
| Annual N ₂ O emissions (metric tons CO ₂ e) = | |
| $((P_{\text{total}} \times F_{\text{ind-com}}) \times (\text{Total N Load} - \text{N uptake} \times \text{BOD}_5 \text{ load}) \times \text{EF effluent} \times 44/28 \times (1 - F_{\text{plant nit/denit}}) \times 365.25 \times 10^{-3}) \times \text{GWP}$ | |

Where:

| Term | Description | Value |
|----------------------------|--------------------------------------------------------------------------------------------------|--------------------|
| P _{total} | = population served [person] | user input |
| F _{ind-com} | = factor for industrial and commercial co-discharge waste into the sewer system | 1.25 |
| Total N Load ²⁷ | = total nitrogen load [kg N/person/day] | 0.026 |
| N uptake ²⁸ | = nitrogen uptake for cell growth in aerobic system (kg N/kg BOD ₅) | 0.05 ¹ |
| | = nitrogen uptake for cell growth in anaerobic system (e.g., lagoon) (kg N/kg BOD ₅) | 0.005 ¹ |
| BOD ₅ load | = amount of BOD ₅ produced per person per day [kg BOD ₅ /person/day] | 0.090 |
| EF effluent | = emission factor [kg N ₂ O-N/kg sewage-N produced] | 0.005 |
| 44/28 | = molecular weight ratio of N ₂ O to N ₂ | 1.57 |
| F plant nit/denit | = fraction of nitrogen removed for the centralized WWTP with nitrification/denitrification | 0.7 ¹ |
| | = fraction of nitrogen removed for the centralized WWTP w/o nitrification/denitrification | 0.0 ¹ |
| 365.25 | = conversion factor [day/year] | 365.25 |
| 10 ⁻³ | = conversion from kg to metric ton [metric ton/kg] | 10 ⁻³ |
| GWP | = Global Warming Potential | 310 |

Source: EPA *Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2007*, Chapter 8, 8-13 (2009), except:¹ Grady, C. P. L., Jr., G. T. Daigger, and H. C. Lim, *Biological Wastewater Treatment*, p. 108-109, 644 2nd Edition (1999).

Agriculture

Ventura County Greenhouse Gas Emissions Inventory and Forecast - 2015 - 2050

| Agricultural Emissions in 2015 | | | | | | | |
|--------------------------------|----------------|------------|------------|----------------|----------------|---------------|------|
| | MT CO2 | MT CH4 | MT N2O | MT CO2e | Scaled MTCO2e | % of total Ag | Year |
| Residue Burn | 7,928 | 8 | 1 | 8,494 | 8,514 | 3% | 2015 |
| Enteric Fermentation | 0 | 329 | 0 | 9,212 | 8,225 | 4% | 2015 |
| Manure Management | 0 | 16 | 2 | 864 | 869 | 0% | 2015 |
| Farm Equipment | 67,410 | 7 | 1 | 67,829 | 67,834 | 28% | 2015 |
| Agricultural Irrigation Pumps | 22,257 | 0 | 0 | 22,257 | 21,625 | 9% | 2015 |
| Pesticide | 0 | 0 | 0 | 0 | 658 | 0% | 2015 |
| Fertilizer | 0 | 0 | 495 | 131,113 | 146,983 | 54% | 2015 |
| Lime Application | 294 | 0 | 0 | 294 | 291 | 0% | 2015 |
| Urea Fertilization | 4,941 | 0 | 0 | 4,941 | 4,894 | 2% | 2015 |
| Total | 102,830 | 360 | 499 | 245,004 | 259,894 | 54% | |

Source: See separate Agricultural calculation spreadsheet

| Agricultural Emissions Forecasting 2020-2040 | | | | | | |
|----------------------------------------------|----------------|----------------|----------------|----------------|----------------|------------------------------------------------|
| | 2020 | 2030 | 2035 | 2040 | 2050 | Calculation Method/Scaling Factor |
| Residue Burn | 8,298 | 7,864 | 7,647 | 7,430 | 6,996 | Change in important farmland. See Assumptions. |
| Enteric Fermentation | 8,171 | 8,062 | 8,007 | 7,953 | 7,844 | Change in grazing land. See Assumptions. |
| Manure Management | 864 | 852 | 846 | 841 | 829 | Change in grazing land. See Assumptions. |
| Farm Equipment | 66,107 | 62,651 | 60,923 | 59,196 | 55,740 | Change in important farmland. See Assumptions. |
| Agricultural Irrigation Pumps | 21,074 | 19,972 | 19,422 | 18,871 | 17,769 | Change in important farmland. See Assumptions. |
| Pesticide | 641 | 608 | 591 | 574 | 541 | Change in important farmland. See Assumptions. |
| Fertilizer | 146,011 | 144,068 | 143,096 | 142,124 | 140,181 | Change in grazing land. See Assumptions. |
| Lime Application | 289 | 285 | 283 | 282 | 278 | Change in grazing land. See Assumptions. |
| Urea Fertilization | 4,769 | 4,520 | 4,395 | 4,270 | 4,021 | Change in important farmland. See Assumptions. |
| Total | 256,223 | 248,882 | 245,211 | 241,541 | 234,200 | |

Stationary Sources

Stationary Sources

Ventura County Greenhouse Gas Emissions Inventory and Forecast - 2015 - 2050

| Stationary Source Emissions (Oil and Gas Emissions) Forecasts (BAU and Legislatively Adjusted BAU) | | | | | | |
|----------------------------------------------------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|------------------------------------------|
| | 2015 | 2020 | 2030 | 2040 | 2050 | Calculation Method/Scaling Factor |
| Combustion Emissions | 231,487 | 179,032 | 144,802 | 117,239 | 95,020 | Forecasted growth rate in oil production |
| Vented Emissions | 32,523 | 25,153 | 20,344 | 16,472 | 13,350 | Forecasted growth rate in oil production |
| Fugitive Emissions | 53,212 | 41,154 | 33,285 | 26,950 | 21,842 | Forecasted growth rate in oil production |
| Total | 317,222 | 245,340 | 198,432 | 160,660 | 130,212 | |

| Estimating Ventura County Stationary Source Emissions from Oil and Gas Production and Processing in 2015 | | | | |
|----------------------------------------------------------------------------------------------------------|----------------|--------------|----------|----------------|
| | 2007 | | | |
| | MT CO2 | MT CH4 | MT N2O | MT CO2e |
| Combustion Emissions | 189,880 | 385 | 5 | 201,985 |
| Vented Emissions | 25,074 | 118 | - | 28,378 |
| Fugitive Emissions | 11,234 | 1,257 | - | 46,430 |
| Total | 226,188 | 1,760 | 5 | 276,793 |

Source: CARB's 2007 Oil and Gas Industry Survey Results [Final (Revised)] (https://ww2.arb.ca.gov/sites/default/files/2020-04/FinalReportRevised_4.pdf)

| | 2015 | | | |
|----------------------|----------------|--------------|----------|----------------|
| | MT CO2 | MT CH4 | MT N2O | MT CO2e |
| Combustion Emissions | 217,614 | 441 | 6 | 231,487 |
| Vented Emissions | 28,736 | 135 | - | 32,523 |
| Fugitive Emissions | 12,875 | 1,441 | - | 53,212 |
| Total | 259,225 | 2,017 | 6 | 317,222 |

Source: Scaled from 2007 levels based on total oil production in the county. Note: Associated Gas production is natural gas production that is associated with crude oil production. Thus, any emissions related to associated gas production are assumed to be proportional to oil production.

| Estimating Ventura County Stationary Source Emissions from Oil and Gas Production and Processing in 2020-2050 | | | | |
|---------------------------------------------------------------------------------------------------------------|----------------|--------------|----------|----------------|
| | 2020 | | | |
| | MT CO2 | MT CH4 | MT N2O | MT CO2e |
| Combustion Emissions | 168,303 | 341 | 4 | 179,032 |
| Vented Emissions | 22,225 | 105 | - | 25,153 |
| Fugitive Emissions | 9,957 | 1,114 | - | 41,154 |
| Total | 200,485 | 1,560 | 4 | 245,340 |

| | 2030 | | | |
|----------------------|----------------|--------------|----------|----------------|
| | MT CO2 | MT CH4 | MT N2O | MT CO2e |
| Combustion Emissions | 136,124 | 276 | 4 | 144,802 |
| Vented Emissions | 17,975 | 85 | - | 20,344 |
| Fugitive Emissions | 8,054 | 901 | - | 33,285 |
| Total | 162,153 | 1,262 | 4 | 198,432 |

| | 2040 | | | |
|----------------------|----------------|--------------|----------|----------------|
| | MT CO2 | MT CH4 | MT N2O | MT CO2e |
| Combustion Emissions | 110,213 | 223 | 3 | 117,239 |
| Vented Emissions | 14,554 | 68 | - | 16,472 |
| Fugitive Emissions | 6,521 | 730 | - | 26,950 |
| Total | 131,287 | 1,022 | 3 | 160,660 |

| | 2040 | | | |
|----------------------|----------------|------------|----------|----------------|
| | MT CO2 | MT CH4 | MT N2O | MT CO2e |
| Combustion Emissions | 89,326 | 181 | 2 | 95,020 |
| Vented Emissions | 11,796 | 56 | - | 13,350 |
| Fugitive Emissions | 5,285 | 591 | - | 21,842 |
| Total | 106,406 | 828 | 2 | 130,212 |

Source: Scaled from 2007 levels based on forecasted oil production in the county. Note: Associated Gas production is natural gas production that is associated with crude oil production. Thus, any emissions related to associated gas production are assumed to be proportional to oil production.

Stationary Sources

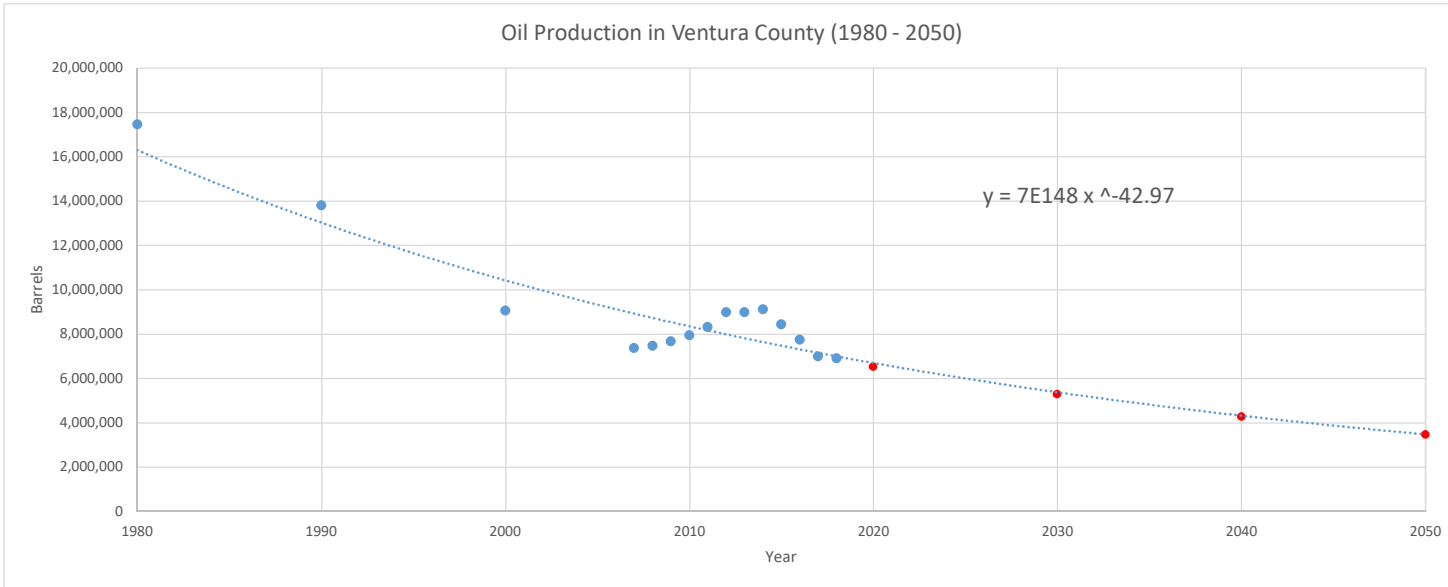
| Oil and Gas Production Trends and Forecasts | | | |
|---------------------------------------------|--------------------------------|--------------------------------|----------------------------------------------------|
| Year | Oil Production - Ventura (bbl) | Associated Gas - Ventura (Mcf) | Source |
| 1980 | 17,458,241 | 25,275,891 | California Department of Conservation |
| 1990 | 13,794,524 | 14,583,052 | California Department of Conservation |
| 2000 | 9,050,774 | 9,593,691 | California Department of Conservation |
| 2007 | 7,354,231 | 7,611,026 | California Department of Conservation |
| 2008 | 7,466,152 | 7,626,361 | California Department of Conservation |
| 2009 | 7,665,283 | 7,799,236 | California Department of Conservation |
| 2010 | 7,944,456 | 7,951,650 | California Department of Conservation |
| 2011 | 8,308,059 | 7,676,656 | California Department of Conservation |
| 2012 | 8,977,459 | 8,411,316 | California Department of Conservation |
| 2013 | 8,973,076 | 8,275,223 | California Department of Conservation |
| 2014 | 9,101,060 | 8,558,641 | California Department of Conservation |
| 2015 | 8,428,402 | 8,231,282 | California Department of Conservation |
| 2016 | 7,729,845 | 4,049,625 | California Department of Conservation |
| 2017 | 6,988,161 | 6,503,659 | California Department of Conservation |
| 2018 | 6,894,516 | 6,239,856 | California Department of Conservation |
| 2020 | 6,518,530 | 5,792,850 | Forecast based on non-linear trends from 1980-2018 |
| 2030 | 5,272,217 | 4,123,990 | Forecast based on non-linear trends from 1980-2018 |
| 2040 | 4,268,642 | 2,940,818 | Forecast based on non-linear trends from 1980-2018 |
| 2050 | 3,459,670 | 2,100,568 | Forecast based on non-linear trends from 1980-2018 |

Source: https://www.conservation.ca.gov/calgem/pubs_stats/annual_reports/Pages/annual_reports.aspx

Note: Trends between 1980 and 2020 are indicative of the declining segment of the Hubbert Curve (similar to a bell curve), which approximates the rate of finite resource production over time. This prediction assumes that production follows the Hubbert Curve post-peak. A linear curve would predict zero barrels of oil produced between 2030 and 2040. Curve fitting for the segment of data analyzed is based on an exponential trend.

Ventura County is not a major producer of non-associated gas.

Stationary Sources



Blue Dots: Data from California Department of Conservation

Red Dots: Forecasted data

Note: The shown forecast equation is based on results from this exponential regression calculator from CASIO: (<https://keisan.casio.com/exec/system/14059931777261>) using data from 1980 through 2018).

Stationary Sources

Assumptions

| Category | |
|-----------------------------|-------------|
| Conversions | |
| g/MT | 1000000 |
| g/lb | 453.592 |
| lb/MT | 2204.622622 |
| kg/MT | 1000 |
| MT/ton | 1.10231 |
| g/ton | 907185 |
| lb/kg | 2.20462 |
| kWh/MWh | 1000 |
| MWh/GWh | 1000 |
| Btu/therm | 100000 |
| BTU/gal diesel | 139000 |
| MMBtu/therm | 0.1 |
| MMBtu/MWh | 3.41214148 |
| MMBtu/barrel of oil | 5.8 |
| MMBtu/Mcf of associated gas | 1 |
| LPG Gallons/GGE | 1.344086022 |
| LNG Gallons/GGE | 1.572327044 |
| gal/cubic foot | 7.480519481 |
| gal/Liter | 3.785411784 |
| gallon/acrefoot | 325851.429 |
| million gal/acre-feet | 0.325851429 |

| GWP | |
|-----------------|----------------------------------------------------------|
| Source (Select) | IPCC Fifth Assessment Report GWP Values 100-year horizon |
| CO2 | 1 |
| CH4 | 28 |
| N2O | 265 |

| Electricity Emission Factors | | | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SCE | 2015 | 2020 | 2030 | 2035 | 2040 | 2045 | Source/Notes |
| RPS Status | 25% | 33% | 50% | 67% | 83% | 100% | |
| SCE Power Mix 2015 | | | | | | | |
| Natural Gas | 26% | | | | | | SCE 2015 Power Content Label (https://www.energy.ca.gov/pcl/labels/2015_index.html) |
| Unspecified Sources | 41% | | | | | | . Forecasts based on SB350 targets for 2030 and SB100 targets for 2045. |
| GHG Free Sources | 33% | | | | | | |
| SCE 2015 Calculated EFs | | | | | | | |
| lb CO2/MWh | 529 | 472.67 | 352.74 | 235.16 | 117.58 | 0.00 | 2016 SCE Corporate Responsibility Report |
| lb CH4/GWh | 14.95 | 13.35 | 9.97 | 6.64 | 3.32 | 0.00 | Calculated from eGrid 2016 NG and Other Efs |
| lb N2O/GWh | 1.66 | 1.48 | 1.11 | 0.74 | 0.37 | 0.00 | Calculated from eGrid 2016 NG and Other Efs |
| MT CO2e/MWh | 0.240 | 0.215 | 0.160 | 0.107 | 0.053 | 0.000 | Calculated |
| California Average | | | | | | | |
| RPS Status | 25% | 33% | 50% | 67% | 83% | 100% | |
| CA Average Power Mix 2015 | | | | | | | |
| Natural Gas | 44% | | | | | | SCE 2015 Power Content Label (https://www.energy.ca.gov/pcl/labels/2015_index.html) |
| Unspecified Sources | 15% | | | | | | . Forecasts based on SB350 targets for 2030 and SB100 targets for 2045. |
| Coal | 6% | | | | | | |
| GHG Free Sources | 41% | | | | | | |
| CA Average 2015 Calculated EFs | | | | | | | |
| lb CO2/MWh | 519.21 | 463.8 | 346.1 | 230.5 | 115.6 | 0.0 | Calculated from eGrid 2016 NG and Other Efs |
| lb CH4/GWh | 11.96 | 10.7 | 8.0 | 5.3 | 2.7 | 0.0 | Calculated from eGrid 2016 NG and Other Efs |
| lb N2O/GWh | 2.32 | 2.1 | 1.5 | 1.0 | 0.5 | 0.0 | Calculated from eGrid 2016 NG and Other Efs |
| MT CO2e/MWh | 0.236 | 0.211 | 0.157 | 0.105 | 0.053 | 0.000 | Calculated |

| eGrid 2016 Emission Factors (For Calculation of California Average EFs) | | Updated February 2017 | |
|-------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <i>Natural Gas EFs: eGRID2016 Average of California Natural Gas Electricity Plant EFs</i> | | https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid | |
| lb CO2/MWh | 867.88 | Weighted average based on annual plant net generation | |
| lb CH4/GWh | 16.50 | Weighted average based on annual plant net generation | |
| lb N2O/GWh | 1.66 | Weighted average based on annual plant net generation | |
| MT CO2e/MWh | 0.3941 | Calculated | |
| <i>Coal EFs: eGRID2016 Average of California Coal Electricity Plant EFs</i> | | https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid | |
| lb CO2/MWh | 1157.82 | Weighted average based on annual plant net generation | |
| lb CH4/GWh | 13.41 | Weighted average based on annual plant net generation | |
| lb N2O/GWh | 18.98 | Weighted average based on annual plant net generation | |
| MT CO2e/MWh | 0.5276 | Calculated | |
| <i>Unspecified EFs: eGRID2016 CAMX Emission Factors</i> | | Assumed to represent unspecified power sources | |
| lb CO2/MWh | 452.50 | CAMX avg | |
| lb CH4/GWh | 26.00 | CAMX avg | |
| lb N2O/GWh | 3.00 | CAMX avg | |
| kg/MWh | 205.25 | Calculated | |
| kg/GWh | 11.79 | Calculated | |
| kg/GWh | 1.36 | Calculated | |
| Utility Natural Gas Emission Factors | | Source/Notes | |
| kg CO ₂ /MMBtu | 53.06 | Natural Gas - US Weighted Average | 2017 Climate Registry Emission Factors. Table 12.1. |
| g CH4/MMBtu | 4.7 | Natural Gas - Residential/Commercial | 2017 Climate Registry Emission Factors. Table 12.9. |
| g N2O/MMBtu | 0.1 | Natural Gas - Residential/Commercial | 2017 Climate Registry Emission Factors. Table 12.9. |
| MT CO2/therm | 0.005306 | Calculated | |
| MT CH4/therm | 0.000047 | Calculated | |
| MT N2O/therm | 0.000001 | Calculated | |
| MT CO2e/therm | 0.0069 | Calculated | |

| The Climate Registry 2017 Default Emission Factors | | |
|----------------------------------------------------|----------------------------------|---------------------------------------|
| Fuel Type | Carbon Content (Per Unit Energy) | CO2 Emission Factor (Per Unit Volume) |
| Fuels Measured in Gallons | kg C / MMBtu | kg CO2 / gallon |
| Gasoline | 19.2 | 8.78 |
| Diesel Fuel | 20.2 | 10.21 |
| Aviation Gasoline | 18.9 | 8.31 |
| Jet Fuel (Jet A or A-1) | 19.7 | 9.75 |
| Kerosene | 20.5 | 10.15 |
| Residual Fuel Oil No. 5 | 19.9 | 10.21 |
| Residual Fuel Oil No. 6 | 20.5 | 11.27 |
| Crude Oil | 20.3 | 10.29 |
| Biodiesel (B100) | 20.1 | 9.45 |
| Ethanol (E100) | 18.7 | 5.75 |
| Methanol | n/a | 4.10 |
| Liquefied Natural Gas (LNG)* | n/a | 4.48 |
| Liquefied Petroleum Gas (LPG) | 17.2 | 5.68 |
| Propane (Liquid) | 16.8 | 5.72 |
| Ethane | 17.1 | 4.11 |
| Isobutane | 17.7 | 6.30 |
| Butane | 17.8 | 6.54 |
| Fuels Measured in Standard Cubic Feet | kg C / MMBtu | kg CO2 / Standard cubic foot |
| Compressed Natural Gas (CNG)* | 14.47 | 0.054 |
| Propane (Gas) | 16.76 | 0.1546 |

Source: Heat content and default emission factors are from EPA Final Mandatory Reporting of Greenhouse Gases Rule Table C-1.
Carbon content derived using the heat content and default emission factor. Except those marked * are from EPA Climate Leaders, Mobile Combustion Guidance, Tables B-4, B-5, (2008). A fraction oxidized value of 1.00 is from the IPCC, *Guidelines for National Greenhouse Gas Inventories* (2006). Methanol emission factor is calculated from the properties of the pure compounds.
Note: Carbon contents are calculated using the following equation: (Emission Factor / (44/12)) / Heat Content x Conversion Factor. Heat content factors are based on higher heating values (HHV). NA = data not available.

| Vehicle Type / Fuel Type | CH4 (g / gallon) | N2O (g / gallon) |
|--------------------------------------|------------------|------------------|
| Ships and Boats | | |
| Residual Fuel Oil | 0.11 | 0.60 |
| Diesel Fuel | 0.74 | 0.45 |
| Gasoline | 0.06 | 0.22 |
| Locomotives | | |
| Diesel Fuel | 0.80 | 0.26 |
| Agricultural Equipment | | |
| Gasoline | 1.26 | 0.22 |
| Diesel Fuel | 1.44 | 0.26 |
| Construction/Mining Equipment | | |
| Gasoline | 0.50 | 0.22 |
| Diesel Fuel | 0.58 | 0.26 |
| Other Non-Highway | | |
| Snowmobiles (Gasoline) | 0.50 | 0.22 |
| Other Recreational (Gasoline) | 0.50 | 0.22 |
| Other Small Utility (Gasoline) | 0.50 | 0.22 |
| Other Large Utility (Gasoline) | 0.50 | 0.22 |
| Other Large Utility (Diesel) | 0.58 | 0.26 |
| Aircraft | | |
| Jet Fuel | 0.00 | 0.31 |
| Aviation Gasoline | 7.05 | 0.11 |

Source: US Inventory of Greenhouse Gas Emissions and Sinks 1990-2011 (April 2013) Annex 3, Table A-106. Original factors converted to g/gallon fuel using fuel density defaults from U.S. EPA Climate Leaders, Mobile Combustion Guidance (2008) Table A-6.

| Vehicle Type / Fuel Type | CH4 (g / L) | N2O (g / L) |
|-----------------------------------------------------------------|-------------|-------------|
| Diesel Passenger Cars | | |
| Advanced | 0.0005 | 0.0010 |
| Moderate | 0.0005 | 0.0010 |
| Uncontrolled | 0.0006 | 0.0012 |
| Diesel Light Trucks | | |
| Advanced | 0.0010 | 0.0015 |
| Moderate | 0.0009 | 0.0014 |
| Uncontrolled | 0.0011 | 0.0017 |
| Diesel Medium and Heavy-Duty Vehicles (Trucks and Buses) | | |
| Aftertreatment | 0.0051 | 0.0048 |
| Advanced | 0.0051 | 0.0048 |
| Moderate | 0.0051 | 0.0048 |
| Uncontrolled | 0.0051 | 0.0048 |
| CNG Medium and Heavy-Duty Vehicles (Trucks and Buses) | | |
| CNG | 1.9660 | 0.1750 |

Assumptions

| Fuel Type | Heat Content | CO2 Emission Factor (Per Unit Energy) | CO2 Emission Factor (Per Unit Mass or Volume) |
|-------------------------|--------------|---------------------------------------|-----------------------------------------------|
| Natural Gas | Btu / scf | kg CO2 / MMBtu | kg CO2 / scf |
| US Weighted Average | 1026.00 | 53.06 | 0.05 |
| Greater than 1,000 Btu* | >1000 | 53.06 | varies |
| 975 to 1,000 Btu* | 975 – 1,000 | 54.01 | varies |

| Fuel Type / End-Use Sector | CH4 (g / MMBtu) | N2O (g / MMBtu) |
|----------------------------|-----------------|-----------------|
| Coal | | |
| Residential | 300.7 | 1.5 |
| Commercial | 10.0 | 1.5 |
| Petroleum Products | | |
| Residential | 10.0 | 0.6 |
| Commercial | 10.0 | 0.6 |
| Natural Gas | | |
| Residential | 4.7 | 0.1 |
| Commercial | 4.7 | 0.1 |
| Wood | | |
| Residential | 253.2 | 3.4 |
| Commercial | 253.2 | 3.4 |

| Population growth | | | | |
|----------------------------------------|---------|---------|------------------|--------------------------------------------------|
| Population | 2013 | 2015 | Growth from 2013 | Source |
| Ventura County | 836,154 | NA | NA | County of Ventura. 2013 Water Supply and Demand. |
| Ventura County | 840,867 | 850,491 | 1% | Department of Finance |
| Unincorporated County | | 97,733 | | Department of Finance |
| City of Ventura Population | | 108,037 | | Department of Finance |
| Population supplied by City of Ventura | | 112,412 | | City of Ventura 2015 UWMP |

Note: Factors used in Imported Water calculations.

| Land Use Trends | | | | | | | |
|--------------------|--------|--------|--------|--------|--------|-------------------|--------|
| | 2015 | 2020 | 2030 | 2035 | 2040 | 2015 - 2040 Trend | Annual |
| Important Farmland | 120923 | 114410 | 109967 | 107745 | 105524 | -12.7% | -0.5% |
| Grazing Land | 192742 | 195394 | 190882 | 188626 | 186370 | -3.3% | -0.1% |

Source: 2020 - 2040 Projections based on 1984-2016 Land Use Data from California Department of Conservation's Farmland Mapping and Monitoring Program. See Land Use Growth Trends Spreadsheet.

Note: Factors used in Agriculture Forecasts.

| Solid Waste Characterization | | | |
|----------------------------------|---------------|------------------|------------------------------------------------------------------|
| | Tons | Percent of total | Source |
| Commercial Waste (w/o) organics | 12,296 | 28% | 2014 Commercial Waste Stream by Material Type in Ventura County |
| Residential Waste (w/o) organics | 14,387 | 32% | 2014 Residential Waste Stream by Material Type in Ventura County |
| Organics - Commercial | 7,936 | 18% | |
| Organics - Residential | 9,739 | 22% | |
| Organics - Combined | 17,675 | 40% | |
| Solid Waste Total | 44,358 | | |

Source: CalRecycle Solid Waste Characterization for Unincorporated Ventura County (<https://www2.calrecycle.ca.gov/WasteCharacterization>)

EMFAC 2017 Emission Factor Summary by SCAG Vehicle Category

| SCAG Vehicle Category | CO2 g/mi | CH4 g/mi | N2O g/mi |
|-----------------------|----------|----------|----------|
| Light Duty | 360.2 | 0.0113 | 0.0001 |
| Heavy Duty | 676.7 | 0.0190 | 0.0003 |
| Buses | 1502.3 | 1.6224 | 0.0039 |

| VMT Test | |
|------------|-------|
| 15,367,891 | 81% |
| 3,498,707 | 18% |
| 51,641 | 0.27% |

g per ton 907185

Output from EMFAC 2017

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: VENTURA

Calendar Year: 2015

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

| Region | Calendar Year | Vehicle Category | SCAG VEH CAT | Model Year | Speed | Fuel | Population | VMT | Trips | CO2 g/mi | CH4 g/mi | N2O g/mi | Weighted by VMT and SCAG Vehicle Category | | |
|---------|---------------|------------------|--------------|------------|------------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------------------|-------------|-------------|
| | | | | | | | | | | | | | CO2 g/mi | CH4 g/mi | N2O g/mi |
| VENTURA | 2015 | HHDT | Heavy Duty | Aggregated | Aggregated | GAS | 10.45531516 | 201.3981635 | 209.1899457 | 2785.411232 | 0.88132186 | 0 | 0.160338293 | 5.07321E-05 | 0 |
| VENTURA | 2015 | HHDT | Heavy Duty | Aggregated | Aggregated | DSL | 2856.269122 | 284092.6478 | 26805.6492 | 1751.784312 | 0.017332984 | 0.002129387 | 142.243705 | 0.001407427 | 0.000172905 |
| VENTURA | 2015 | HHDT | Heavy Duty | Aggregated | Aggregated | NG | 56.59271026 | 2269.639992 | 220.71157 | 3747.758307 | 8.386015072 | 0.05167104 | 2.431201635 | 0.005440077 | 3.35194E-05 |
| VENTURA | 2015 | LDA | Light Duty | Aggregated | Aggregated | GAS | 257764.5357 | 9735876.625 | 1202803.446 | 316.1007037 | 0.00767939 | 0 | 200.256331 | 0.004865052 | 0 |
| VENTURA | 2015 | LDA | Light Duty | Aggregated | Aggregated | DSL | 2796.394678 | 112916.6356 | 13162.62327 | 235.6607335 | 0.001432697 | 0 | 1.731533448 | 1.05268E-05 | 0 |
| VENTURA | 2015 | LDA | Light Duty | Aggregated | Aggregated | ELEC | 1140.433608 | 40720.83903 | 5813.705517 | 0 | 0 | 0 | 0 | 0 | 0 |
| VENTURA | 2015 | LDT1 | Light Duty | Aggregated | Aggregated | GAS | 29792.01842 | 997682.5711 | 132083.258 | 373.7735268 | 0.019870218 | 0 | 24.26535528 | 0.001289973 | 0 |
| VENTURA | 2015 | LDT1 | Light Duty | Aggregated | Aggregated | DSL | 54.68934084 | 1029.5922 | 191.409685 | 436.7623092 | 0.013292069 | 0 | 0.029261469 | 8.9052E-07 | 0 |
| VENTURA | 2015 | LDT1 | Light Duty | Aggregated | Aggregated | ELEC | 32.97445551 | 940.8671739 | 155.8402686 | 0 | 0 | 0 | 0 | 0 | 0 |
| VENTURA | 2015 | LDT2 | Light Duty | Aggregated | Aggregated | GAS | 97569.80534 | 3640831.271 | 453078.5457 | 416.0681671 | 0.010527776 | 0 | 98.57136549 | 0.002494152 | 0 |
| VENTURA | 2015 | LDT2 | Light Duty | Aggregated | Aggregated | DSL | 322.50626 | 14907.63867 | 1592.299453 | 330.0100127 | 0.001342905 | 0 | 0.320126558 | 1.30269E-06 | 0 |
| VENTURA | 2015 | LDT2 | Light Duty | Aggregated | Aggregated | ELEC | 11.25957017 | 370.4753568 | 55.94907764 | 0 | 0 | 0 | 0 | 0 | 0 |
| VENTURA | 2015 | LHDT1 | Light Duty | Aggregated | Aggregated | GAS | 9667.949504 | 322240.2109 | 144038.0424 | 850.1204178 | 0.019494039 | 0.003761232 | 17.82567198 | 0.000408759 | 7.8867E-05 |
| VENTURA | 2015 | LHDT1 | Light Duty | Aggregated | Aggregated | DSL | 7012.299453 | 267489.0214 | 88205.90565 | 518.1401102 | 0.006360813 | 0.000133649 | 9.018595437 | 0.000110714 | 2.32625E-06 |
| VENTURA | 2015 | LHDT2 | Light Duty | Aggregated | Aggregated | GAS | 1520.846228 | 55364.75561 | 22658.34274 | 967.5943347 | 0.010590956 | 0.003614496 | 3.485880016 | 3.81552E-05 | 1.30217E-05 |
| VENTURA | 2015 | LHDT2 | Light Duty | Aggregated | Aggregated | DSL | 2290.518275 | 91034.81066 | 28811.83843 | 569.386227 | 0.005417874 | 0.000128274 | 3.372874496 | 3.20939E-05 | 7.59854E-07 |
| VENTURA | 2015 | MCY | Light Duty | Aggregated | Aggregated | GAS | 16078.66621 | 86485.61503 | 32157.33242 | 237.4705893 | 0.364527719 | 0 | 1.336409144 | 0.002051446 | 0 |
| VENTURA | 2015 | MDV | Heavy Duty | Aggregated | Aggregated | GAS | 80904.03297 | 2792548.29 | 373672.3129 | 495.8915598 | 0.011940621 | 0 | 395.8036882 | 0.009530595 | 0 |
| VENTURA | 2015 | MDV | Heavy Duty | Aggregated | Aggregated | DSL | 929.7187943 | 41024.03536 | 4600.713317 | 428.7902925 | 0.000915923 | 0 | 5.027774037 | 1.07396E-05 | 0 |
| VENTURA | 2015 | MDV | Heavy Duty | Aggregated | Aggregated | ELEC | 3.21702005 | 65.62526123 | 13.79356057 | 0 | 0 | 0 | 0 | 0 | 0 |
| VENTURA | 2015 | MH | Heavy Duty | Aggregated | Aggregated | GAS | 4449.138728 | 39906.79323 | 445.0918384 | 1749.410586 | 0.037777401 | 0 | 19.95404785 | 0.000430895 | 0 |
| VENTURA | 2015 | MH | Heavy Duty | Aggregated | Aggregated | DSL | 1116.305957 | 11871.49199 | 111.6305957 | 991.4394094 | 0.003868894 | 0 | 3.364061373 | 1.31276E-05 | 0 |
| VENTURA | 2015 | MHDT | Heavy Duty | Aggregated | Aggregated | GAS | 827.5784077 | 33933.12756 | 16558.18878 | 1791.461793 | 0.054889273 | 0.005401097 | 17.3749622 | 0.000532358 | 5.2384E-05 |
| VENTURA | 2015 | MHDT | Heavy Duty | Aggregated | Aggregated | DSL | 5433.837983 | 292793.9321 | 55084.74084 | 1079.564459 | 0.018521845 | 0.000259366 | 90.34478296 | 0.001550025 | 2.17054E-05 |
| VENTURA | 2015 | OBUS | Buses | Aggregated | Aggregated | GAS | 258.970114 | 10905.03035 | 5181.474041 | 1775.903658 | 0.028466077 | 0.004440815 | 375.0178876 | 0.006011187 | 0.000937768 |
| VENTURA | 2015 | OBUS | Buses | Aggregated | Aggregated | DSL | 159.1361575 | 8932.726012 | 1405.7879 | 1176.572926 | 0.02153926 | 0.000867219 | 203.5206902 | 0.003725808 | 0.000150009 |
| VENTURA | 2015 | SBUS | Buses | Aggregated | Aggregated | GAS | 63.61691184 | 2522.652147 | 254.4676474 | 1018.277131 | 0.13073451 | 0.052420003 | 49.7426665 | 0.006386359 | 0.002560708 |
| VENTURA | 2015 | SBUS | Buses | Aggregated | Aggregated | DSL | 331.64 | 10257.16316 | 3827.07962 | 1448.39885 | 0.013531626 | 0.00103012 | 287.6875965 | 0.002687713 | 0.000204607 |
| VENTURA | 2015 | UBUS | Buses | Aggregated | Aggregated | GAS | 56.68692214 | 4226.760619 | 226.7476886 | 1688.446763 | 0.004710732 | 0 | 138.197672 | 0.000385569 | 0 |
| VENTURA | 2015 | UBUS | Buses | Aggregated | Aggregated | DSL | 43.93929665 | 3327.785566 | 175.7571866 | 1690.819298 | 0.091867579 | 0 | 108.9577766 | 0.005920022 | 0 |
| VENTURA | 2015 | UBUS | Buses | Aggregated | Aggregated | ELEC | 0.114167013 | 2.640406279 | 0.456668051 | 0 | 0 | 0 | 0 | 0 | 0 |
| VENTURA | 2015 | UBUS | Buses | Aggregated | Aggregated | NG | 107.2596142 | 11466.20056 | 429.0384568 | 1527.62131 | 7.193904851 | 0 | 339.1883636 | 1.597312631 | 0 |